

Arkansas Local Police and Fire Retirement System

Compiled Annual Actuarial Valuation Report
as of December 31, 2019



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Compiled Actuarial Valuation Report

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June 19, 2020

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, 2019.

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.

The purposes of the valuation are 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, 2021. 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.

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.

Results of the 2019 actuarial valuations indicate that aggregate actuarial accrued liabilities are 71% covered by actuarial valuation assets. This result includes the 249 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, 2019. 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, 2019 valuation was based upon demographic assumptions that were recommended in connection with a study of experience covering the period from January 1, 2012 through December 31, 2016 and the economic assumptions adopted by the Board in December 2017. 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, which gives the Board the authority to adopt the assumptions used in actuarial valuations. The Board has committed to an ongoing review of the actuarial assumptions. In our opinion, the demographic assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable. **In our professional judgment, the discount rate of 7.50% used in this report deviates materially from the guidance set forth in Actuarial Standard of Practice No. 27 (ASOP No. 27)¹.**

If a discount rate which was determined to be reasonable were used in this valuation instead of 7.50%, the unfunded liability would be higher and either the contribution or amortization period would be higher as well. For example, the amortization period based on a 7.00% discount rate would be 32 years for paid and 26 years for volunteer.

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.

¹ The September 7, 2017 experience study presentation covering the period from January 1, 2012 through December 31, 2016 included an analysis of the long-term rate of investment return and inflation assumptions and suggested that an investment return assumption in the range of 6.25% to 7.00% would be reasonable. Please see our report dated September 29, 2017 for additional information.



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.

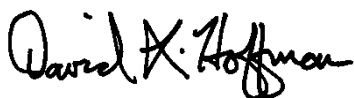
The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section E of this report. This report includes risk metrics on pages B-18 through B-21, but does not include a more robust assessment of the risks of future experience not meeting the actuarial 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 regarding whether or not the plan sponsor is actually able to do so is outside our scope 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 and Casey T. Ahlbrandt-Rains are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

If you have any questions concerning this report or LOPFI in general, please contact the LOPFI office.

Respectfully submitted,



David L. Hoffman



Heidi G. Barry, ASA, FCA, MAAA



Casey T. Ahlbrandt-Rains, ASA, MAAA

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SECTION A

EXECUTIVE SUMMARY

Executive Summary

Comments

Comment 1: The December 31, 2019 actuarial valuations establish employer contribution rates for the fiscal year beginning in calendar year 2021. Contribution rates for 294 paid service departments were computed. In addition, Local Pension and Relief Fund departments under LOPFI administration were included to develop employer contribution rates for affected departments. The average contribution rate is 23.17% and is uncapped and based on a 16.5-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 2021. For Benefit Program 2 paid service departments 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 departments participating in LOPFI are charged a uniform rate for the calendar year. For calendar year 2021, that rate is \$59.00 per member per month (\$5.90 per member per month after allocation of Premium Tax money) based on a 16.5-year amortization period. This rate was computed as \$59.00 (\$5.90 per member per month after allocation of Premium Tax money) in the prior valuation based on a 16.7-year amortization period. For Benefit Program 4 volunteer service departments 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, 2019 was unfavorable. Experience losses totaled \$58.7 million or 1.9% of the actuarial accrued liabilities (see page B-17). The market value rate of return for the year ended December 31, 2019 was 18.6% while the recognized rate of return was 6.9%.

Comment 4: The ratio of actuarial value of assets to market value of assets is currently 96.9%, as the market value of assets exceeded the actuarial value of assets by \$76.5 million. If near term experience matches valuation expectations, in particular that market value returns of 7.50% are achieved each year for the next four years, the phase-in of these yet to be recognized gains will decrease the paid service employer contribution rate by 1.44% of active member payroll.

Comment 5: Actuarial accrued liabilities, including both LOPFI and Local Pension and Relief Funds under LOPFI administration, totaled \$3.365 billion while actuarial valuation assets totaled \$2.398 billion. Hence, actuarial accrued liabilities are 71% covered by actuarial valuation assets as of December 31, 2019. Excluding the Local Funds, actuarial accrued liabilities are 76% covered by actuarial valuation assets.

Comment 6: There were no changes in methods or assumptions in the December 31, 2019 actuarial valuation. There were no changes in benefit provisions in the December 31, 2019 actuarial valuation.

Executive Summary

Recommendations and Conclusion

Recommendation 1: In our professional judgment, the discount rate of 7.50% used in this report deviates materially from the guidance set forth in Actuarial Standard of Practice No. 27 (ASOP No. 27). The September 7, 2017 experience study presentation covering the period from January 1, 2012 through December 31, 2016 included an analysis of the long-term rate of investment return and inflation assumptions and suggested that an investment return assumption in the range of 6.25% to 7.0% would be reasonable. Please see our report dated September 29, 2017 for additional information. We recommend the Board continue to review and consider lowering the investment return assumption prior to the December 31, 2020 valuation.

Recommendation 2: 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 7.50% 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 16.5 years for paid service and 16.5 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, 2019
for Plan Year Beginning January 1, 2021

Contributions	% of Active Payroll #
Normal Cost of Benefits:	
Age and Service	12.15%
Casualty	2.42%
Refunds	0.94%
Total	15.51%
Unfunded Accrued Liabilities *	14.26%
Total Contribution Requirement	29.77%
Member Portion @	6.60%
Employer Portion before Application of 24-10-405(h)(1) 1% Limit	23.17%
Employer Portion after Application of 24-10-405(h)(1) 1% Limit	23.17%

Includes DROP participant payroll.

* Unfunded actuarial accrued liabilities are amortized over a 16.5-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 Department
December 31, 2019@

Group	Number of Active Members	Number of Departments with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll												Totals	
		Under 12.99%	13.00% -13.99%	14.00% -14.99%	15.00% -15.99%	16.00% -16.99%	17.00% -17.99%	18.00% -18.99%	19.00% -19.99%	20.00% -20.99%	21.00% -21.99%	22.00% -22.99%	23.00% & Above		
Paid Police:															
W/SS	2,332	1	-	-	1	1	1	2	2	9	4	8	157	186	
W/O SS	1,637	-	-	-	-	-	2	1	2	1	1	2	5	14	
Paid Fire:															
W/SS	165	-	-	-	-	-	-	-	-	-	-	-	32	32	
W/O SS	2,755	-	-	-	-	-	-	2	3	1	-	5	51	62	
12/31/2019	6,889	1	-	-	1	1	3	5	7	11	5	15	245	294	
12/31/2018 #	6,755	1	-	1	2	3	5	7	11	5	15	46	194	290	
12/31/2017 *	6,651	1	1	1	3	5	7	11	5	15	18	24	194	285	

Group	Number of Active Members	Number of Departments 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		
12/31/2016	6,551	-	1	-	-	-	2	3	5	272	283	
12/31/2015 *	6,430	1	-	-	1	2	3	5	7	266	285	
12/31/2014	6,323	1	-	1	2	3	5	6	11	247	276	
12/31/2013	6,245	1	-	2	3	5	6	11	6	238	272	
12/31/2012 **	6,139	1	2	3	6	6	11	7	16	220	272	
12/31/2011	6,016	3	3	6	6	12	6	17	19	203	275	
12/31/2010	5,949	7	6	6	13	6	17	18	27	174	274	
12/31/2009	5,907	8	8	8	5	11	20	17	33	159	269	

* 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, 2019
for Plan Year Beginning January 1, 2021

Contributions	\$ Per Member Per Month
Normal Cost of Benefits:	
Age and Service	\$ 23.19
Casualty	1.20
Refunds	-
Total	<u>24.39</u>
Unfunded Accrued Liabilities *	<u>34.61</u>
Total Contribution Requirement	59.00
Member Portion	-
Employer Portion	\$ 59.00

* *Unfunded actuarial accrued liabilities were amortized over a 16.5-year period.*

LOPFI
Reported Accrued Assets Available for Benefits
December 31, 2019

<u>Group Type</u>	<u>No. #</u>	<u>Employer Accumulation Account</u>	<u>Members' Deposit Account</u>	<u>Retirement Reserve Account &</u>	<u>Totals @</u>
Paid Police W/SS	186	\$ 139,500,674	\$ 19,909,817	\$ -	\$ 159,410,491
Paid Police W/O SS	14	222,393,007	86,370,605	-	308,763,612
Paid Fire W/SS	32	9,874,562	2,450,485	-	12,325,047
Paid Fire W/O SS	62	432,541,850	136,065,689	-	568,607,539
Subtotal	294	804,310,093	244,796,596	-	1,049,106,689
Volunteer Police and Fire	601	50,062,572	-	-	50,062,572
Retirants and Beneficiaries	-	-	-	1,106,947,258	1,106,947,258
Total	895	\$ 854,372,665	\$ 244,796,596	\$ 1,106,947,258	\$ 2,206,116,519

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 departments with active participants as of December 31, 2019. Totals include accounts for departments with no active participants as of December 31, 2019.

& Includes DROP Reserve Account.

@ Does not include assets of \$268,395,060 invested by LOPFI on behalf of Pension and Relief Funds under LOPFI administration.



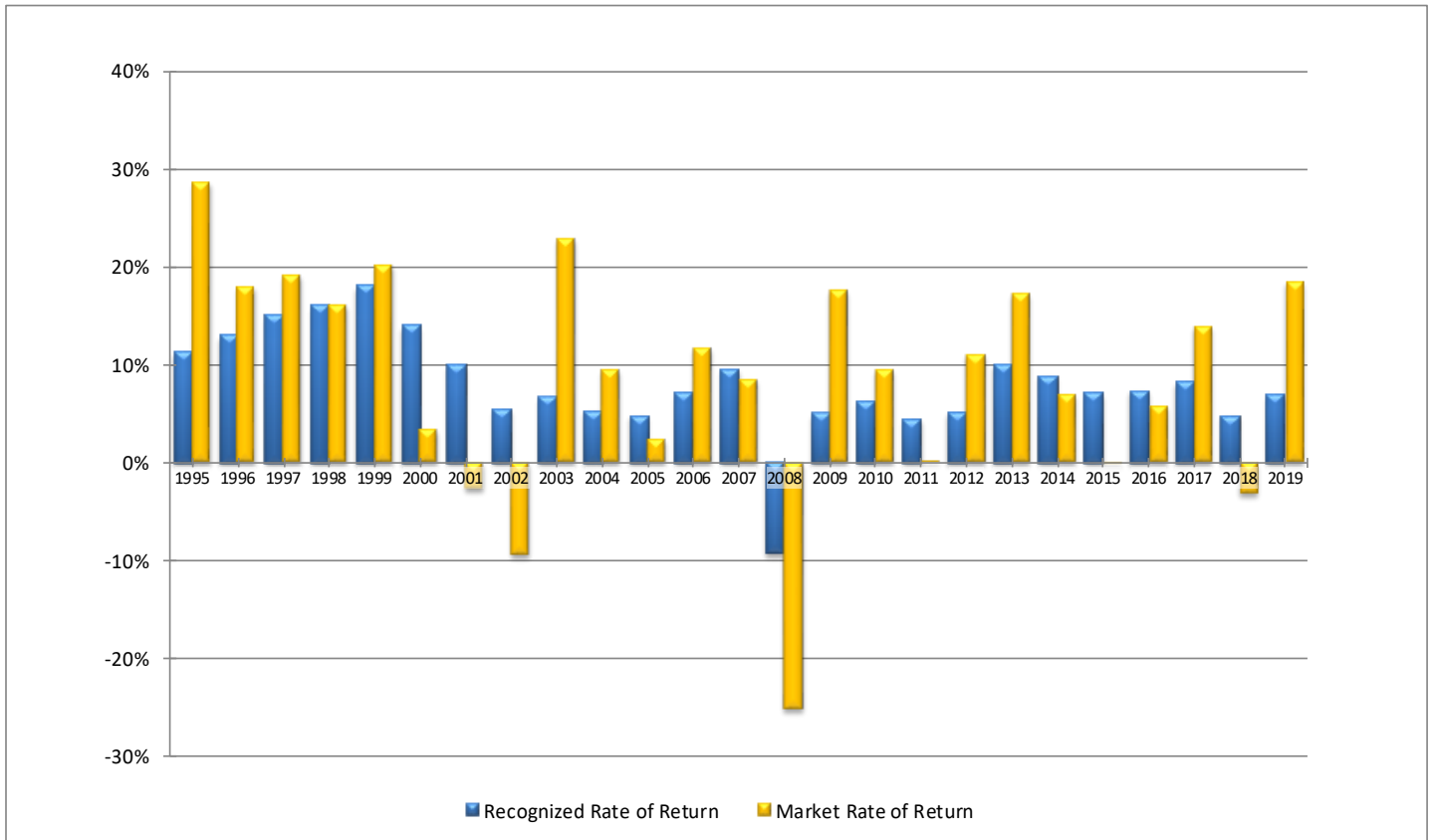
LOPFI

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

Year Ended December 31:	2015	2016	2017	2018	2019
A. Actuarial Value Beginning of Year	\$1,554,175,988	\$1,702,593,072	\$1,857,485,451	\$2,066,004,218	\$2,235,288,171
B. Market Value End of Year	1,646,678,312	1,770,838,998	2,074,618,439	2,079,853,157	2,474,511,579
C. Market Value Beginning of Year	1,610,091,699	1,646,678,312	1,770,838,998	2,074,618,439	2,079,853,157
D. Non-Investment Net Cash Flow	37,416,976	28,455,864	53,667,520	69,683,253	7,267,608
E. Investment Income					
E1. Market Total: B - C - D	(830,363)	95,704,822	250,111,921	(64,448,535)	387,390,814
E1(a). Assumed Rate of Return	8.00%	7.75%	7.75%	7.50%	7.50%
E2. Amount for Immediate Recognition	125,830,748	133,053,628	146,034,739	157,563,438	167,919,148
E3. Amount for Phased-In Recognition: E1-E2	(126,661,111)	(37,348,806)	104,077,182	(222,011,973)	219,471,666
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.20 x E3	(25,332,222)	(7,469,761)	20,815,436	(44,402,395)	43,894,333
F2. First Prior Year	(1,573,797)	(25,332,222)	(7,469,761)	20,815,436	(44,402,395)
F3. Second Prior Year	22,376,852	(1,573,797)	(25,332,222)	(7,469,761)	20,815,436
F4. Third Prior Year	5,381,814	22,376,852	(1,573,797)	(25,332,222)	(7,469,761)
F5. Fourth Prior Year	<u>(15,683,287)</u>	<u>5,381,815</u>	<u>22,376,852</u>	<u>(1,573,796)</u>	<u>(25,332,223)</u>
F6. Total Recognized Investment Gain	(14,830,640)	(6,617,113)	8,816,508	(57,962,738)	(12,494,610)
G. Actuarial Value End of Year: A + D + E2 + F6	1,702,593,072	1,857,485,451	2,066,004,218	2,235,288,171	2,397,980,317
120% Corridor	1,976,013,974	2,125,006,798	2,489,542,127	2,495,823,788	2,969,413,895
80% Corridor	1,317,342,650	1,416,671,198	1,659,694,751	1,663,882,526	1,979,609,263
Actuarial Value End of Year	1,702,593,072	1,857,485,451	2,066,004,218	2,235,288,171	2,397,980,317
H. Difference Between Market & Actuarial Value	(55,914,760)	(86,646,453)	8,614,221	(155,435,014)	76,531,262
I. Recognized Rate of Return	7.06%	7.36%	8.22%	4.74%	6.94%
J. Market Rate of Return	(0.05)%	5.76%	13.91%	(3.06)%	18.59%
K. Ratio of Actuarial Value to Market Value	103.40%	104.89%	99.58%	107.47%	96.91%



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 ^	Number of Departments	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/Liabilities*	Average Contribution Rate ¹	Average Contribution Rate ²	Amortization Period
12/31/2005	236	5,115	\$ 589,536,989	\$ 546,315,508	93 %	15.04 %		30
12/31/2006	247	5,328	679,947,017	633,759,848	93	15.11		30
12/31/2007	261	5,603	790,780,919	740,968,085	94	15.16	15.44 %	30
12/31/2008 #+	258	5,640	941,808,816	778,148,309	83	15.30	15.69	30
12/31/2009	269	5,907	1,089,212,977	765,350,382	70	17.25	18.79	30
12/31/2010	274	5,949	1,188,842,953	840,895,829	71	17.03	19.21	30
12/31/2011	275	6,016	1,307,344,445	928,177,445	71	18.01	19.63	30
12/31/2012 #+	272	6,139	1,434,209,374	1,031,482,975	72	18.97	18.97	22.3
12/31/2013	272	6,245	1,592,077,174	1,188,197,455	75	19.39	19.39	19.5
12/31/2014	276	6,323	1,734,569,468	1,335,956,221	77	20.12	20.12	16.3
12/31/2015 #	285	6,430	1,937,302,402	1,463,508,550	76	21.04	21.04	18.8
12/31/2016	283	6,551	2,101,909,805	1,607,578,162	76	21.90	21.90	16.8
12/31/2017 #	285	6,651	2,317,272,762	1,774,216,157	77	22.44	22.44	17.0
12/31/2018 +	290	6,755	2,477,962,759	1,890,785,753	76	22.84	22.84	16.1
12/31/2019	294	6,889	2,688,706,314	2,046,963,145	76	23.17	23.17	16.5

* 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.

^ 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	Number of Departments	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/ Liabilities*	Average Contribution Rate &	Amortization Period
12/31/2005	325	4,650	\$ 28,869,651	\$ 19,106,574	66 %	\$ 32.30	30
12/31/2006	341	4,905	33,214,438	21,250,207	64	33.91	30
12/31/2007	461	6,620	47,026,093	26,468,537	56	39.15	30
12/31/2008 #	457	6,603	53,074,090	24,187,269	46	46.14	30
12/31/2009	468	6,551	58,959,579	27,103,260	46	49.15	29
12/31/2010	485	6,734	64,586,619	32,173,609	50	49.62	28
12/31/2011	512	7,034	71,670,610	36,812,938	51	51.56	27
12/31/2012 #	511	7,029	78,626,100	42,114,214	54	53.75	26
12/31/2013	534	7,140	84,573,784	49,562,326	59	52.68	25
12/31/2014	554	7,347	90,183,301	57,093,309	63	52.68	20.7
12/31/2015 #	566	7,304	97,465,046	62,673,098	64	54.13	21.2
12/31/2016	573	7,391	103,714,962	69,786,157	67	55.62	18.5
12/31/2017 #	579	7,341	112,025,766	77,776,841	69	59.00	16.0
12/31/2018	596	7,461	118,978,599	83,364,148	70	59.00	16.7
12/31/2019	601	7,533	126,633,600	91,327,397	72	59.00	16.5

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

After changes in actuarial valuation assumptions.

& Beginning with the December 31, 2006 valuation, volunteer departments 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
(Concluded)

Total Plan

Valuation Date	Number of Departments	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/ Liabilities*
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
12/31/2017 #	864	13,992	2,429,298,528	1,851,992,998	76
12/31/2018 +	886	14,216	2,596,941,358	1,974,149,901	76
12/31/2019	895	14,422	2,815,339,914	2,138,290,542	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, 2019 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.

The December 31, 2019 valuation included 8,088 terminated vested members from 827 departments.

<u>Service Type</u>	<u>Number</u>	<u>Projected Benefits</u>	<u>Actuarial Accrued Liabilities</u>	<u>Average Age</u>
Paid	4,129	\$ 9,910,808	\$ 73,386,053	42.1
Volunteer	3,959	3,800,566	26,691,265	49.4
Total	8,088	\$ 13,711,374	\$ 100,077,318	45.7

* 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, 2019 valuation. It includes the actuarial accrued liabilities associated with the service accrued from the terminated employer.

The December 31, 2019 valuation included 4,414 active inactive members from 747 departments.

<u>Service Type</u>	<u>Number</u>	<u>Actuarial Accrued Liabilities</u>	<u>Average Age</u>
Paid	1,819	\$ 77,019,505	40.1
Volunteer	2,595	5,697,887	40.1
Total	4,414	\$ 82,717,392	40.1

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, 2019 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, 2019 valuation included 6,363 retired members from 811 departments.

<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	3,173	\$ 74,402,793	\$ 1,022,434,924	57.9	52.5
Volunteer	3,190	3,666,672	44,341,829	62.5	57.7
Total	6,363	\$ 78,069,465	\$ 1,066,776,753	60.2	55.1

Deferred Retirement Option Plan (DROP) Results

The following table contains information regarding DROP member data used in the December 31, 2019 valuation. It includes current DROP account deposits, expected benefits at retirement and the actuarial accrued liabilities associated with these benefits.

The December 31, 2019 valuation included 380 DROP members from 83 departments.

<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	380	\$ 12,234,768	\$ 16,371,924	\$ 255,445,019	56.6	53.7

LOPFI and Local Plans Schedule of Funding Progress

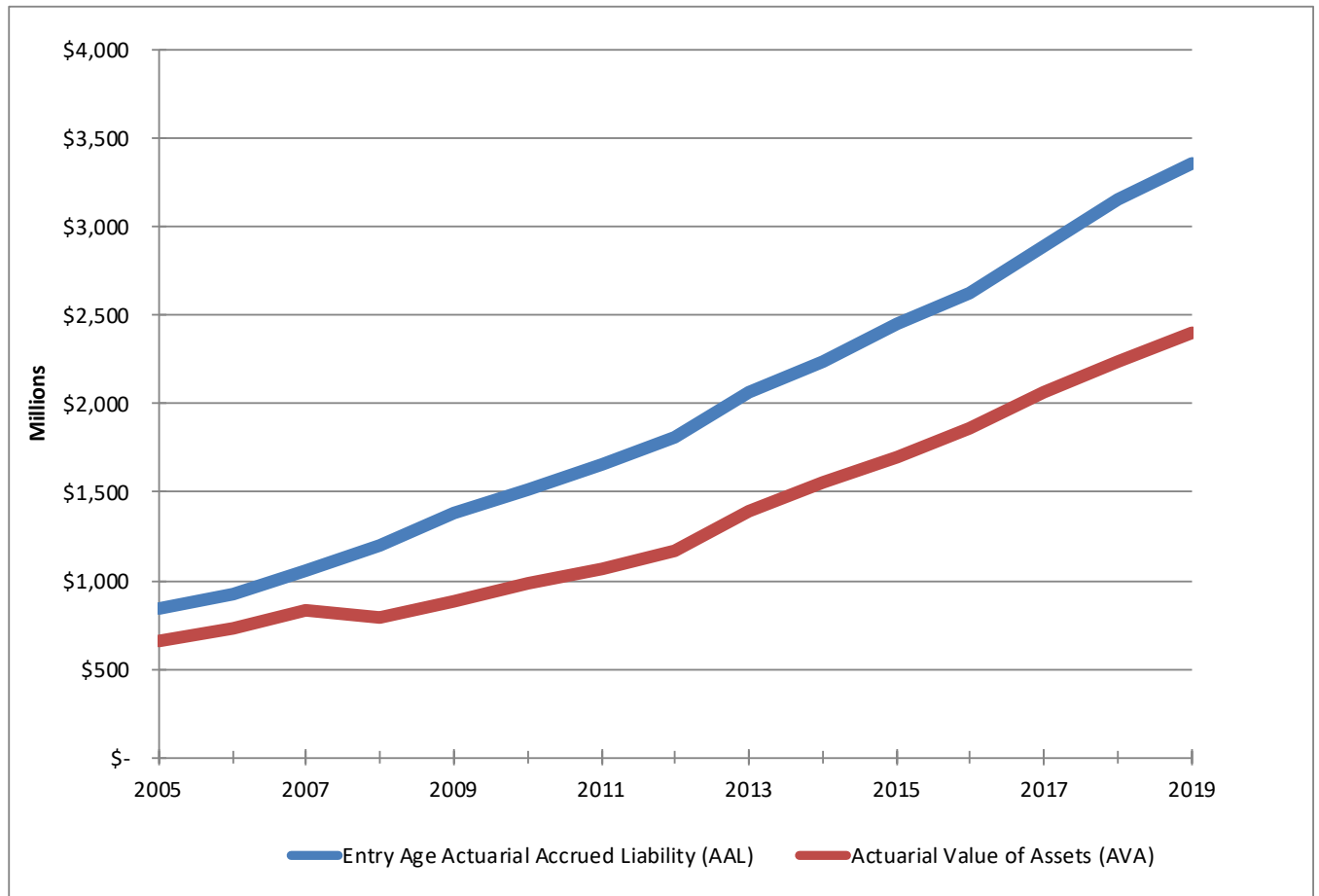
Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (c) = (b) - (a)	Funded Ratio (d) = (a)/(b)	Annual Valuation Payroll (e)	UAAL as a Percentage of Valuation Payroll (f) = (c)/(e)
12/31/2005	\$ 653,546,976	\$ 842,926,984	\$ 189,380,008	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%
12/31/2017 #	2,066,004,218	2,892,057,540	826,053,322	71%	338,837,262	244%
12/31/2018 +	2,235,288,171	3,154,883,796	919,595,625	71%	350,825,283	262%
12/31/2019	2,397,980,317	3,365,160,599	967,180,282	71%	367,406,964	263%

After changes in actuarial valuation assumptions.

+ After legislated benefit changes and Board policy changes.

LOPFI and Local Plans

Actuarial Accrued Liability vs. Actuarial Value of Assets



LOPFI and Local Plans Schedule of Employer Contributions

<u>Fiscal Year Ending</u>	<u>Annual Required Contribution</u>	<u>Percent Contributed</u>
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%
12/31/2017	96,071,994	100%
12/31/2018	104,016,627	100%
12/31/2019	113,692,346	100%

Short Condition Test Comparative Statement

LOPFI Plans

LOPFI Paid Service

Valuation Date	Actuarial Accrued Liabilities for				Portion of Present Values Covered by Assets		
	Member Contributions	Current Retirees and Beneficiaries	Active and Inactive Members, Employer Financed Portion	Actuarial Value of Assets	(1)	(2)	(3)
December 31	(1)	(2)	(3)				
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
2017 #	229,228,802	760,264,654	1,327,779,306	1,774,216,157	100	100	59
2018 +	239,860,093	867,082,665	1,371,020,001	1,890,785,753	100	100	57
2019	244,796,596	1,022,434,924	1,421,474,794	2,046,963,145	100	100	55

LOPFI Volunteer Service

Valuation Date	Actuarial Accrued Liabilities for				Portion of Present Values Covered by Assets		
	Member Contributions	Current Retirees and Beneficiaries	Active and Inactive Members, Employer Financed Portion	Actuarial Value of Assets	(1)	(2)	(3)
December 31	(1)	(2)	(3)				
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
2017 #	-	36,279,130	75,746,636	77,776,841	-	100	55
2018	-	39,876,740	79,101,859	83,364,148	-	100	55
2019	-	44,341,829	82,291,771	91,327,397	-	100	57

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	Current Retirees and Beneficiaries	Active and Inactive Members, Employer Financed Portion			(1)	(2)	(3)
	(1)	(2)	(3)					
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	-	
2017 #	1,274,344	415,623,362	25,783,235	199,957,371	100	48	-	
2018	1,158,476	509,574,301	24,638,215	244,799,518	100	48	-	
2019	1,061,086	503,135,342	22,195,366	242,430,841	100	48	-	

Local Volunteer Service

Valuation Date December 31	Actuarial Accrued Liabilities for				Actuarial Value of Assets	Portion of Present Values Covered by Assets		
	Member Contributions	Current Retirees and Beneficiaries	Active and Inactive Members, Employer Financed Portion			(1)	(2)	(3)
	(1)	(2)	(3)					
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	-	
2017 #	6,284	19,761,146	310,641	14,053,849	100	71	-	
2018	6,461	22,310,984	254,001	16,338,752	100	73	-	
2019	4,190	23,272,798	151,903	17,258,934	100	74	-	

After changes in actuarial valuation assumptions.

Derivation of Actuarial Gain (Loss) Year Ended December 31, 2019 (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	\$	919,595,625
(2) Employer normal cost from last valuation		33,362,822
(3) Actual employer contributions		113,692,346
(4) Interest accrual: (1) x 0.0750 + [(2)-(3)] x (0.0750/2)		65,957,315
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)		905,223,416
(6) Change from benefit changes*		3,241,698
(7) Change from revised actuarial assumptions		-
(8) Expected UAAL after changes		908,465,114
(9) Actual UAAL at end of year		967,180,282
(10) Gain (Loss) (8) - (9)		(58,715,168)
(11) Gain (Loss) as percent of actuarial accrued liabilities at start of year	\$3,154,883,796	(1.9)%

* 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
2010	(0.7) %
2011	(1.9)
2012	(1.1)
2013	0.7
2014	(0.1)
2015	(0.3)
2016	(0.5)
2017	(0.3)
2018	(2.6)
2019	(1.9)

Risks Associated With Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures are discussed in the following pages. A historical summary of these plan maturity measures can be found on page B-21.

Funded Ratio

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.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. AAL/Payroll is expected to grow as the System matures.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Unfunded Actuarial Accrued Liability to Payroll

The ratio of unfunded liability to payroll gives an indication of the plan sponsor's ability to actually pay off the unfunded liability. The ratio of the unfunded actuarial accrued liability to payroll is expected to trend toward 0% in 16.5 years for paid participants.

Plan Maturity Measures (Concluded)

Ratio of Net Cash Flow to Market Value of Assets

The ratio of Net External Cash Flow to assets is an important measure of sustainability. Negative ratios are common and expected for a maturing system. In the longer term, this ratio should be on the order of approximately -4%. A ratio that is significantly more negative than that for an extended period could be a leading indicator of potential exhaustion of assets.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, a duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

LOPFI and Local Plans Risk Measures (\$ millions)

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) AAL/ Payroll (1)/(4)	(7) MV Assets/ Payroll (2)/(4)	(8) UAAL/ Payroll (3)/(4)	(9) Net External Cash Flow (NECF)	(10) NECF/ Assets (9)/(2)	(11) Duration
2008#+	\$ 1,201	\$ 657	\$ 543	\$ 246	55%	488%	267%	221%	\$ 39	6.0%	
2009	1,379	828	551	265	60%	520%	312%	208%	49	6.0%	
2010	1,520	956	564	268	63%	566%	356%	210%	47	4.9%	
2011	1,654	1,002	652	276	61%	600%	363%	237%	44	4.4%	
2012#+	1,806	1,159	647	285	64%	635%	407%	227%	43	3.7%	
2013	2,069	1,468	601	299	71%	693%	491%	201%	100	6.8%	
2014	2,235	1,610	625	308	72%	726%	523%	203%	37	2.3%	
2015#	2,456	1,647	809	317	67%	774%	519%	255%	37	2.3%	
2016	2,623	1,771	852	326	68%	804%	543%	261%	28	1.6%	
2017#	2,892	2,075	817	339	72%	853%	612%	241%	54	2.6%	
2018+	3,155	2,080	1,075	351	66%	899%	593%	306%	70	3.4%	15.7
2019	3,365	2,475	890	367	74%	917%	674%	243%	7	0.3%	15.0

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.

Short term fluctuations will occur due to experience, plan changes, and assumption and method changes. Long term expectations are described on the prior pages.

Results for Local Plans Under LOPFI Administration Paid Service Plans as of December 31, 2019

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Bald Knob Part-Paid Fire	\$ 68,916	\$ 91,866	\$ (22,950)	\$ -
Barling Fire	318,820	266,951	51,869	672
Bella Vista Fire	5,063,880	2,675,316	2,388,564	16,324
Benton Police	2,679,243	1,942,906	736,337	10,556
Bentonville Fire	5,793,351	7,891,096	(2,097,745)	-
Blytheville Police	2,967,851	2,389,101	578,750	7,066
Brinkley Police	437,575	478,853	(41,278)	-
Cabot Police	956,076	3,338,179	(2,382,103)	-
Camden Fire	3,903,641	1,921,913	1,981,728	18,250
Camden Police	3,874,963	2,625,253	1,249,710	12,608
Clinton Fire	183,298	169,067	14,231	245
Conway Fire	8,950,526	5,448,381	3,502,145	50,406
Conway Police	8,687,236	5,667,337	3,019,899	49,904
Crossett Fire	2,986,979	2,342,015	644,964	5,036
Crossett Police	1,030,882	1,315,828	(284,946)	-
El Dorado Fire	5,965,180	905,320	5,059,860	42,687
El Dorado Police	3,870,505	(2,221,013)	6,091,518	49,683
Forrest City Fire	2,808,414	2,440,045	368,369	5,447
Forrest City Police	1,885,379	(141,349)	2,026,728	14,518
Fort Smith Fire	31,795,106	13,072,986	18,722,120	127,883
Fort Smith Police	27,003,818	7,788,890	19,214,928	141,480
Gentry Fire	580,623	528,285	52,338	445
Heber Springs Fire	275,385	279,206	(3,821)	-
Heber Springs Police	1,821,602	1,398,386	423,216	5,486
Helena - West Helena Fire	2,901,794	1,197,329	1,704,465	18,675
Helena - West Helena Police	2,288,782	1,282,892	1,005,890	14,351
Hot Springs Fire	17,032,582	(1,257,479)	18,290,061	124,857
Hot Springs Police	21,904,710	14,705,452	7,199,258	69,952
Hot Springs Village Fire	534,233	18,627	515,606	3,527
Hoxie Fire	115,080	93,887	21,193	496
Jonesboro Fire	13,042,164	(1,689,627)	14,731,791	100,453
Jonesboro Police	10,831,392	9,715,293	1,116,099	13,825
Lincoln Fire	107,647	99,098	8,549	75
Little Rock Fire	92,710,226	44,878,278	47,831,948	268,268
Little Rock Police	87,269,365	38,167,964	49,101,401	333,185

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration Paid Service Plans as of December 31, 2019 (Concluded)

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Lowell Fire	\$ 1,080,571	\$ 809,158	\$ 271,413	\$ 6,270
Lowell Police	60,788	(77,998)	138,786	1,457
Magnolia Fire	2,714,030	2,283,920	430,110	6,356
Magnolia Police	1,669,656	1,108,999	560,657	3,845
Malvern Fire	1,576,120	1,927,044	(350,924)	-
Malvern Police	910,962	1,513,295	(602,333)	-
Marianna Police	705,330	561,400	143,930	2,610
McGehee Fire	369,447	388,936	(19,489)	-
McGehee Police	212,455	517,819	(305,364)	-
Mena Fire	605,696	622,429	(16,733)	83
Monticello Fire	695,399	765,895	(70,496)	-
Mountain Home Fire	4,138,397	1,700,638	2,437,759	16,690
Newport Fire	1,092,287	1,213,276	(120,989)	-
Newport Police	1,651,610	595,546	1,056,064	7,070
North Little Rock Fire	25,587,667	4,956,317	20,631,350	141,295
North Little Rock Police	22,968,542	460	22,968,082	156,988
Osceola Police	2,556,050	2,928,561	(372,511)	-
Paragould Fire	1,538,252	737,423	800,829	5,493
Paragould Police	2,498,137	485,683	2,012,454	13,743
Pine Bluff Fire	16,037,572	6,795,039	9,242,533	58,952
Pine Bluff Police	22,720,087	14,172,408	8,547,679	48,551
Pocahontas Fire	904,175	640,436	263,739	5,101
Russellville Fire	4,771,683	2,717,263	2,054,420	15,773
Searcy Fire	4,310,456	(307,306)	4,617,762	31,586
Searcy Police	3,403,880	1,358,833	2,045,047	14,679
Stuttgart Fire	3,887,015	1,770,901	2,116,114	27,133
Stuttgart Police	1,682,930	1,614,979	67,951	1,108
Texarkana Fire	5,718,347	5,428,630	289,717	3,013
Trumann Fire	422,984	246,756	176,228	1,208
Van Buren Fire	2,099,878	900,691	1,199,187	11,213
Walnut Ridge Fire	1,259,324	519,768	739,556	5,055
West Memphis Fire	8,271,066	7,269,875	1,001,191	8,322
West Memphis Police	5,120,429	6,127,758	(1,007,329)	-
Wynne Fire	473,295	284,402	188,893	1,290

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration Volunteer Service Plans as of December 31, 2019

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Altheimer Volunteer Fire	\$ 63,063	\$ 21,364	\$ 41,699	\$ 811
Altus Volunteer Fire	63,894	31,029	32,865	314
Arkansas City Volunteer Fire	30,590	(26,229)	56,819	441
Atkins Volunteer Fire	180,825	183,799	(2,974)	-
Augusta Volunteer Fire	120,196	138,130	(17,934)	-
Bald Knob Volunteer Fire	116,632	55,826	60,806	1,182
Barling Volunteer Fire	51,031	139,266	(88,235)	-
Bay Volunteer Fire	68,300	96,670	(28,370)	-
Bearden Volunteer Fire	75,214	88,387	(13,173)	-
Bella Vista Volunteer Fire	60,120	21,434	38,686	279
Belleville Volunteer Fire	87,997	166,168	(78,171)	-
Bentonville Volunteer Fire	67,188	72,508	(5,320)	119
Berryville Volunteer Fire	312,016	324,802	(12,786)	-
Biscoe Volunteer Fire	81,506	(10,793)	92,299	695
Bradford Volunteer Fire	155,024	85,603	69,421	437
Bradley Volunteer Fire	109,477	78,106	31,371	324
Bull Shoals Volunteer Fire	124,356	122,636	1,720	16
Caddo Valley Volunteer Fire	107,074	102,077	4,997	390
Caldwell Volunteer Fire	58,953	111,805	(52,852)	-
Calico Rock Volunteer Fire	60,111	98,608	(38,497)	-
Calion Volunteer Fire	76,525	107,916	(31,391)	-
Camden Volunteer Fire	144,832	65,850	78,982	749
Caraway Volunteer Fire	163,071	(121,410)	284,481	2,108
Carthage Volunteer Fire	81,751	59,371	22,380	382
Cash Volunteer Fire	9,380	5,245	4,135	71
Cave City Volunteer Fire	128,850	(527)	129,377	962
Charleston Volunteer Fire	282,790	554,016	(271,226)	-
Chidester Volunteer Fire	49,670	36,630	13,040	222
Clarksville Volunteer Fire	789,425	1,187,310	(397,885)	-
Clinton Volunteer Fire	355,213	285,817	69,396	1,200
Coal Hill Volunteer Fire	62,314	(5,139)	67,453	521
Cooterneck Volunteer Fire	139,340	(32,670)	172,010	1,265
Corning Volunteer Fire	161,552	141,622	19,930	122

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration Volunteer Service Plans as of December 31, 2019 (Continued)

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Cotter Volunteer Fire	\$ 30,587	\$ 27,463	\$ 3,124	\$ 130
Cotton Plant Volunteer Fire	74,445	46,604	27,841	585
Crossett Volunteer Fire	179,076	144,894	34,182	294
Danville Volunteer Fire	98,865	34,285	64,580	462
DeQueen Volunteer Fire	310,411	394,918	(84,507)	-
Des Arc Volunteer Fire	269,339	401,539	(132,200)	-
Devalls Bluff Volunteer Fire	156,476	11,662	144,814	1,038
Dewitt Volunteer Fire	247,955	218,323	29,632	671
Diaz Volunteer Fire	132,598	85,120	47,478	1,099
Dover Volunteer Fire	91,698	42,348	49,350	962
Emmet Volunteer Fire	82,231	62,176	20,055	182
England Volunteer Fire	267,499	216,828	50,671	537
Eudora Volunteer Fire	132,013	166,560	(34,547)	-
Farmington Volunteer Fire	154,256	133,901	20,355	399
Fisher Volunteer Fire	26,414	3,263	23,151	166
Forrest City Volunteer Fire	-	(2,984)	2,984	83
Garland Volunteer Fire	49,442	51,321	(1,879)	6
Gentry Volunteer Fire	405,025	380,339	24,686	214
Gillett Volunteer Fire	189,681	233,914	(44,233)	-
Gosnell Volunteer Fire	39,381	2,435	36,946	266
Gould Volunteer Fire	53,021	45,704	7,317	147
Grady Volunteer Fire	112,372	125,337	(12,965)	-
Gravette Volunteer Fire	109,745	128,172	(18,427)	40
Green Forest Volunteer Fire	110,644	81,531	29,113	324
Grover Township Volunteer Fire	101,410	75,592	25,818	611
Grubbs Volunteer Fire	36,895	23,658	13,237	223
Hampton Volunteer Fire	224,240	69,529	154,711	1,107
Hardin Volunteer Fire	77,289	53,642	23,647	463
Hardy Volunteer Fire	173,322	150,484	22,838	451
Harrisburg Volunteer Fire	66,062	256,337	(190,275)	-
Hartford Volunteer Fire	15,158	56,469	(41,311)	-
Heber Springs Volunteer Fire	291,279	321,756	(30,477)	-
Helena - West Helena Volunteer Fire	144,708	33,444	111,264	882
Hermitage Volunteer Fire	45,862	(17,121)	62,983	484
Holiday Island Volunteer Fire	25,095	14,577	10,518	244

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration Volunteer Service Plans as of December 31, 2019 (Continued)

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Holly Grove Volunteer Fire	\$ 38,956	\$ 41,407	\$ (2,451)	\$ -
Horatio Volunteer Fire	136,593	136,020	573	5
Hot Springs Village Volunteer Fire	57,766	(24,337)	82,103	624
Hoxie Volunteer Fire	36,531	4,926	31,605	737
Humphrey Volunteer Fire	33,876	41,731	(7,855)	-
Huntington Volunteer Fire	73,383	55,378	18,005	154
Huntsville Volunteer Fire	178,555	210,996	(32,441)	-
Imboden Volunteer Fire	234,493	32,644	201,849	1,443
Jasper Volunteer Fire	114,065	3,014	111,051	796
Joiner Volunteer Fire	51,621	29,813	21,808	288
Junction City Volunteer Fire	145,575	155,592	(10,017)	42
Keiser Volunteer Fire	79,491	44,492	34,999	297
Kensett Volunteer Fire	89,133	64,108	25,025	224
Lake City Volunteer Fire	124,261	84,035	40,226	340
Lake Village Volunteer Fire	140,633	133,079	7,554	79
Lavaca Volunteer Fire	91,136	54,635	36,501	713
Leachville Volunteer Fire	88,791	104,575	(15,784)	-
Lewisville Volunteer Fire	84,012	63,665	20,347	124
Lincoln Volunteer Fire	108,316	89,301	19,015	174
Lockesburg Volunteer Fire	109,350	91,898	17,452	339
Lowell Volunteer Fire	22,186	56,079	(33,893)	-
Luxora Volunteer Fire	33,149	194,417	(161,268)	-
Magazine Volunteer Fire	123,968	(21,936)	145,904	1,080
Magnolia Volunteer Fire	116,935	73,951	42,984	636
Malvern Volunteer Fire	32,412	61,813	(29,401)	-
Mammoth Spring Volunteer Fire	95,895	56,161	39,734	309
Mansfield Volunteer Fire	73,966	66,545	7,421	75
Marked Tree Volunteer Fire	155,438	333,505	(178,067)	-
Marmaduke Volunteer Fire	74,425	36,614	37,811	230
Marshall Volunteer Fire	288,213	(9,319)	297,532	2,168
Marvell Volunteer Fire	125,141	84,351	40,790	679
McCrory Volunteer Fire	136,372	216,542	(80,170)	-
McGehee Volunteer Fire	60,743	49,027	11,716	119
McNeil Volunteer Fire	70,766	84,258	(13,492)	-
McRae Volunteer Fire	35,514	10,993	24,521	400

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration Volunteer Service Plans as of December 31, 2019 (Continued)

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Melbourne Volunteer Fire	\$ 93,846	\$ (63,902)	\$ 157,748	\$ 1,241
Mena Volunteer Fire	53,255	135,720	(82,465)	-
Mineral Springs Volunteer Fire	43,757	64,731	(20,974)	-
Monette Volunteer Fire	121,120	(15,137)	136,257	1,060
Monticello Volunteer Fire	276,023	318,907	(42,884)	-
Montrose Volunteer Fire	34,492	16,568	17,924	350
Moro Volunteer Fire	59,765	39,094	20,671	403
Mountain Home Volunteer Fire	75,515	(101,054)	176,569	1,295
Mountain View Volunteer Fire	638,391	236,302	402,089	2,879
Mulberry Volunteer Fire	165,551	211,012	(45,461)	-
Murfreesboro Volunteer Fire	143,666	(107,397)	251,063	1,890
Newark Volunteer Fire	112,391	91,271	21,120	183
Newport Volunteer Fire	71,405	92,305	(20,900)	-
Norman Volunteer Fire	76,511	39,154	37,357	380
Norphlet Volunteer Fire	45,103	63,236	(18,133)	-
North Crossett Volunteer Fire	69,787	(44,802)	114,589	857
Ola Volunteer Fire	255,746	257,800	(2,054)	-
Oppelo Volunteer Fire	124,997	79,427	45,570	389
Ozark Volunteer Fire	904,691	936,280	(31,589)	-
Pangburn Volunteer Fire	201,763	217,523	(15,760)	-
Paragould Volunteer Fire	15,091	(26,403)	41,494	332
Parkin Volunteer Fire	82,501	13,199	69,302	496
Perryville Volunteer Fire	91,452	71,168	20,284	400
Piggott Volunteer Fire	436,976	319,250	117,726	1,009
Plainview Volunteer Fire	120,668	84,581	36,087	606
Plumerville Volunteer Fire	333,819	72,608	261,211	1,867
Pocahontas Volunteer Fire	81,042	8,517	72,525	1,413
Portland Volunteer Fire	89,538	153,910	(64,372)	-
Prescott Volunteer Fire	145,805	156,665	(10,860)	-
Pulaski County Fire Protection District 5	116,999	(22,335)	139,334	898
Rector Volunteer Fire	139,532	93,225	46,307	395
Rison Volunteer Fire	369,537	138,822	230,715	1,654
Russell Volunteer Fire	50,075	23,495	26,580	441
Salem Volunteer Fire	145,105	77,618	67,487	442
Searcy Volunteer Fire	72,376	(134,667)	207,043	1,602

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration Volunteer Service Plans as of December 31, 2019 (Concluded)

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2021 Total Monthly Employer Rate*
Shannon Hills FD Volunteer Fire	\$ 70,153	\$ 566	\$ 69,587	\$ 532
Sheridan Volunteer Fire	119,653	128,549	(8,896)	-
Smackover Volunteer Fire	345,320	333,279	12,041	342
Sparkman Volunteer Fire	190,707	155,028	35,679	536
St. Francis Volunteer Fire	34,359	(3,703)	38,062	309
Stamps City Volunteer Fire	235,886	146,774	89,112	544
Star City Volunteer Fire	489,110	267,124	221,986	1,896
Stephens Volunteer Fire	146,207	203,324	(57,117)	-
Strong Volunteer Fire	57,952	79,314	(21,362)	-
Stuttgart Volunteer Fire	60,776	(4,116)	64,892	888
Sulphur Springs Volunteer Fire	58,971	48,150	10,821	244
Swifton Volunteer Fire	122,547	54,693	67,854	1,135
Taylor Volunteer Fire	172,217	42,206	130,011	872
Thornton Volunteer Fire	182,907	(38,574)	221,481	1,619
Tillar Volunteer Fire	57,524	44,595	12,929	168
Tracy Area Volunteer Fire	30,975	15,746	15,229	336
Trumann Volunteer Fire	52,863	38,403	14,460	105
Tuckerman Volunteer Fire	60,479	(16,002)	76,481	583
Turrell Volunteer Fire	11,830	8,779	3,051	123
Tyronza Volunteer Fire	159,150	(22,026)	181,176	1,332
Vilonia Volunteer Fire	135,703	103,042	32,661	641
Viola Volunteer Fire	95,937	(32,026)	127,963	1,045
Wabbeska Volunteer Fire	65,939	1,132	64,807	465
Waldo Volunteer Fire	46,166	20,563	25,603	593
Walnut Ridge Volunteer Fire	330,975	48,517	282,458	2,025
Washington Volunteer Fire	25,994	14,524	11,470	132
Weiner Volunteer Fire	241,753	128,105	113,648	672
West Point Volunteer Fire	56,617	43,668	12,949	192
Wheatley Volunteer Fire	83,850	79,368	4,482	99
White Hall Volunteer Fire	115,363	110,224	5,139	112
Wilmot Volunteer Fire	59,499	73,002	(13,503)	-
Wilson Volunteer Fire	93,095	80,169	12,926	225
Wynne Volunteer Fire	139,783	62,817	76,966	556

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

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



Results for Local Plans Under LOPFI Administration

Local Plan Level Dollar Contributions

for Departments with No Active Members

as of December 31, 2019

Department	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	Amort. Years	2021 Total Monthly Employer Rate*
Bryant Volunteer Fire	\$ 99,968	\$ 66,400	\$ 33,568	21	\$ 307
Cammack Village Volunteer Fire	10,695	79,461	(68,766)	6	-
Conway Volunteer Fire	4,041	(4,191)	8,232	6	164
Greenwood Volunteer Fire	209,781	172,787	36,994	13	360
Jonesboro Volunteer Fire	-	(67,826)	67,826	17	708
Perla Volunteer Fire	11,489	(8,099)	19,588	3-5 [#]	489
Russellville Volunteer Fire	659,932	339,276	320,656	20	3,244
Stamps Fire	30,053	28,267	1,786	23	44

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

Amortized over multiple layers ranging from 3-5 years.

Due to extreme uncertainty in financial markets at this time the employer contribution established for calendar year 2021 will not be lower than the amount in effect for calendar year 2020.



LOPFI Level Dollar Contributions

December 31, 2019

Departments with Active Members in Other Departments

Department		Actuarial Accrued Liabilities	Actuarial Value Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Amort. Years	2021 Total Monthly Employer Rate
Name	Number					
Alzheimer Police	24822	\$ 251,609	\$ 178,158	\$ 73,451	10	\$ 924
Bethel Heights Fire	168633	104,376	167,933	(63,557)	11	-
Caddo Valley Fire	268233	106,864	81,426	25,438	5	543
Calion Police	276322	14,850	21,491	(6,641)	5	-
Central City Police	319022	36,745	53,777	(17,032)	11	-
Chidester Police	338723	19,856	25,060	(5,204)	5	-
Cotton Plant Police	406522	158,732	448,374	(289,642)	15	-
Devalls Bluff Police	486322	33,940	137,808	(103,868)	15	-
Dyess Police	526622	2,446	16,981	(14,535)	7	-
Foreman Police	635122	139,615	267,266	(127,651)	11	-
Gentry Fire	704832	2,495	4,218	(1,723)	5	-
Greenbrier Fire	744732	5,924	32,918	(26,994)	13	-
Town of Highfill Fire	885032	102,174	72,682	29,492	7	481
Joiner Police	1040522	54,837	80,260	(25,423)	8	-
Luxora Police	1195922	347,417	253,666	93,751	14	954
Montrose Police	1418422	17,915	16,070	1,845	9	25
Mount Ida Police	1448622	6,715	116,664	(109,949)	5	-
Newark Police	1497422	25,314	80,827	(55,513)	5	-
Patterson Police	1623322	97,814	124,675	(26,861)	15	-
Plainview Police	1657822	36,594	15,088	21,506	13	229
Rison Police	1714022	728,222	413,066	315,156	15	3,084
Sheridan Fire	1774432	10,153	14,216	(4,063)	14	-
Tontitown Area Fire	1909732	7,614	61,324	(53,710)	10	-
Yellville Police	2139322	137,924	160,609	(22,685)	5	-

Departments with No Active Members

Department		Actuarial Accrued Liabilities	Actuarial Value Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Amort. Years	2021 Total Monthly Employer Rate
Name	Number					
Perla Police	1628422	\$ 64,599	\$ 55,912	\$ 8,687	5	\$ 185
Cushman Police	431622	15,686	28,950	(13,264)	5	-
Friendship Police	665322	42,444	33,371	9,073	5	194
Higginson Police	884222	2,859	10,816	(7,957)	9	-
Johnson Area Fire Department	1039132	133,663	625,665	(492,002)	15	-
Pleasant Plains Police	1643822	66,853	175,782	(108,929)	11	-

- (1) These results assume contributions begin January 1, 2021 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, Greenwood Volunteer Fire, Jonesboro Volunteer Fire, Perla Volunteer Fire, Russellville Volunteer Fire and Stamps Paid 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, 2020, 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, 2019 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 2019 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 or her 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 2019 was \$1,448.

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 or her service and pay record to time of early retirement, but reduced to reflect the fact that his or her age when payments begin is younger than his or her normal retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month his or her age at early retirement is younger than his or her 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 or her early retirement age, and (ii) after completing 5 years (10 years for members hired on or after July 1, 2013) of credited service, he or she becomes eligible for a vested termination annuity; provided he or she lives to his or her normal retirement age and does not withdraw his or her accumulated contributions. The vested annuity amount, payable monthly for life from his or her normal retirement age, is computed in the same manner as an age & service annuity, based upon his or her service and pay 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 or her 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 or her 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 or her 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 or her 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 or her covered pay if his or her 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 or her 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 or her behalf, the member may choose to have his or her accumulated contributions refunded to him. If he or she dies, his or her accumulated contributions are refunded to his or her 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 or her 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 or her 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>		
\$ 2,400	\$ 2,258	94 %
3,000	2,822	94
3,600	3,387	94
4,200	3,951	94
4,800	4,516	94
<u>28 Years of Service ⁽³⁾</u>		
\$ 2,400	\$ 1,976	82 %
3,000	2,470	82
3,600	2,964	82
4,200	3,457	82
4,800	3,951	82
<u>20 Years of Service ⁽³⁾</u>		
\$ 2,400	\$ 1,411	59 %
3,000	1,764	59
3,600	2,117	59
4,200	2,470	59
4,800	2,822	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 the 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 ⁽⁶⁾		To SSRA	At SSRA	To SSRA	At SSRA
<u>32 Years of Service ⁽⁴⁾</u>							
\$2,400	\$ 2,258	\$ 2,063	\$ 1,217	\$ 2,258	\$ 3,280	94 %	133 %
3,000	2,822	2,577	1,388	2,822	3,965	94	129
3,600	3,387	3,094	1,562	3,387	4,656	94	126
4,200	3,951	3,609	1,734	3,951	5,343	94	124
4,800	4,516	4,125	1,902	4,516	6,027	94	123
<u>28 Years of Service ⁽⁴⁾</u>							
\$2,400	\$ 1,976	\$ 1,805	\$ 1,217	\$ 1,976	\$ 3,022	82 %	123 %
3,000	2,470	2,256	1,388	2,470	3,644	82	119
3,600	2,964	2,708	1,562	2,964	4,270	82	116
4,200	3,457	3,157	1,734	3,457	4,891	82	114
4,800	3,951	3,609	1,902	3,951	5,511	82	112
<u>20 Years of Service ⁽⁴⁾</u>							
\$2,400	\$ 1,411	\$ 1,289	\$ 1,217	\$ 1,411	\$ 2,506	59 %	102 %
3,000	1,764	1,611	1,388	1,764	2,999	59	98
3,600	2,117	1,934	1,562	2,117	3,496	59	95
4,200	2,470	2,256	1,734	2,470	3,990	59	93
4,800	2,822	2,577	1,902	2,822	4,479	59	91

(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 the 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 2020 Social Security estimates for a participant who retired in 2010 at age 56.

(6) Amounts at Social Security Retirement Age are adjusted for post-retirement increases of 3% annually from retirement to SSRA. Amounts to Social Security Retirement Age are benefits at commencement.



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 ⁽⁶⁾		To SSRA	At SSRA	To SSRA	At SSRA ⁽⁷⁾
32 Years of Service ⁽⁴⁾							
\$2,400	\$ 2,258	\$ 2,063	\$ 1,683	\$ 2,258	\$ 3,746	94 %	119 %
3,000	2,822	2,577	1,909	2,822	4,486	94	114
3,600	3,387	3,094	2,133	3,387	5,227	94	111
4,200	3,951	3,609	2,357	3,951	5,966	94	108
4,800	4,516	4,125	2,583	4,516	6,708	94	107
28 Years of Service ⁽⁴⁾							
\$2,400	\$ 1,976	\$ 1,805	\$ 1,683	\$ 1,976	\$ 3,488	82 %	111 %
3,000	2,470	2,256	1,909	2,470	4,165	82	106
3,600	2,964	2,708	2,133	2,964	4,841	82	102
4,200	3,457	3,157	2,357	3,457	5,514	82	100
4,800	3,951	3,609	2,583	3,951	6,192	82	98
20 Years of Service ⁽⁴⁾							
\$2,400	\$ 1,411	\$ 1,289	\$ 1,683	\$ 1,411	\$ 2,972	59 %	94 %
3,000	1,764	1,611	1,909	1,764	3,520	59	89
3,600	2,117	1,934	2,133	2,117	4,067	59	86
4,200	2,470	2,256	2,357	2,470	4,613	59	84
4,800	2,822	2,577	2,583	2,822	5,160	59	82

(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 the 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 2030 Social Security estimates for a participant who retires in 2020 at age 56.

(6) Amounts at Social Security Retirement Age are adjusted for post-retirement increases of 3% annually from retirement to SSRA. Amounts to Social Security Retirement Age are benefits at commencement.

(7) Amounts at Social Security Retirement Age are discounted by price inflation annually from SSRA to the retirement date and then displayed as a percent of FAP.



Arkansas Local Police and Fire Retirement System
Brief Summary as of December 31, 2019 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 2019 General Assembly Session)

The provisions for Benefit Program 2 departments are the same as those for Benefit Program 1 departments 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, 2019 of LOPFI Coverage for **VOLUNTEER SERVICE**

Benefits and Conditions Evaluated and/or Considered (Section References are to Arkansas Code of 1987, Including Amendments from 2019 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 or her 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 2019 was \$1,448.

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, 2019 valuations was \$6.96 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, 2019 valuations was \$11.27 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 or her service record to time of early retirement, but reduced to reflect the fact that his or her age when payments begin is younger than his or her normal retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month his or her age at early retirement is younger than his or her normal retirement age.



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



LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members)

Paid Police Covered by Social Security	Number of Departments	Active Members*				Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	% Increase	
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
12/31/2017	182	2,196	94,895,150	43,213	1.5	2.1
12/31/2018	183	2,229	98,772,944	44,313	2.5	1.9
12/31/2019	186	2,332	106,236,865	45,556	2.8	2.3

* Includes DROP participants, if any.

LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members) (Continued)

Paid Police Not Covered by Social Security	Number of Departments	Active Members*				Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	% Increase	
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
12/31/2017	14	1,635	93,831,833	57,390	3.4	2.1
12/31/2018	14	1,654	95,257,685	57,592	0.4	1.9
12/31/2019	14	1,637	97,125,778	59,332	3.0	2.3

* Includes DROP participants, if any.

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

Paid Fire Covered by Social Security	Number of Departments	Active Members*				Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	% Increase	
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
12/31/2017	27	126	5,486,384	43,543	2.1	2.1
12/31/2018	31	155	6,673,890	43,057	(1.1)	1.9
12/31/2019	32	165	7,248,722	43,932	2.0	2.3

* Includes DROP participants, if any.

LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members) (Continued)

Paid Fire Not Covered by Social Security	Number of Departments	Active Members*			Inflation Increase % (CPI)	
		Number	Annual Payroll	Average Pay		% Increase
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
12/31/2017	62	2,694	144,407,370	53,603	2.1	2.1
12/31/2018	62	2,717	149,934,716	55,184	2.9	1.9
12/31/2019	62	2,755	156,614,173	56,847	3.0	2.3

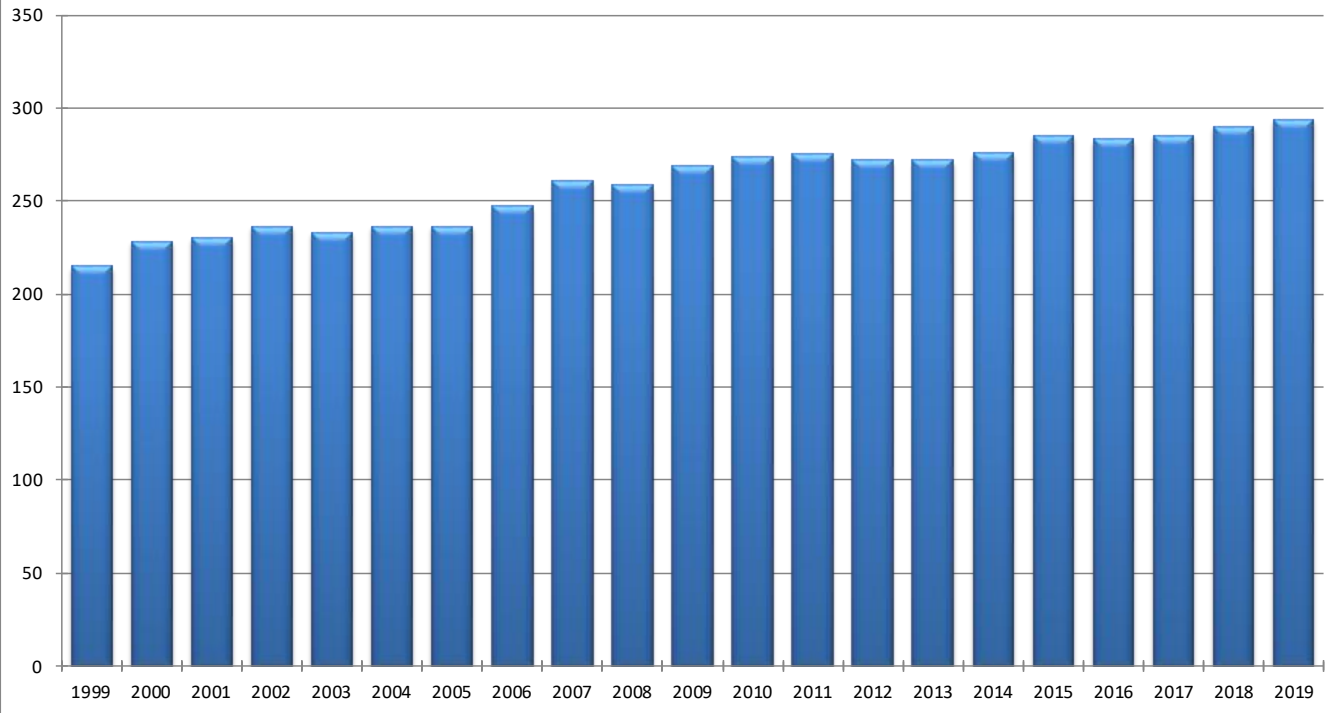
* Includes DROP participants, if any.

LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members) (Continued)

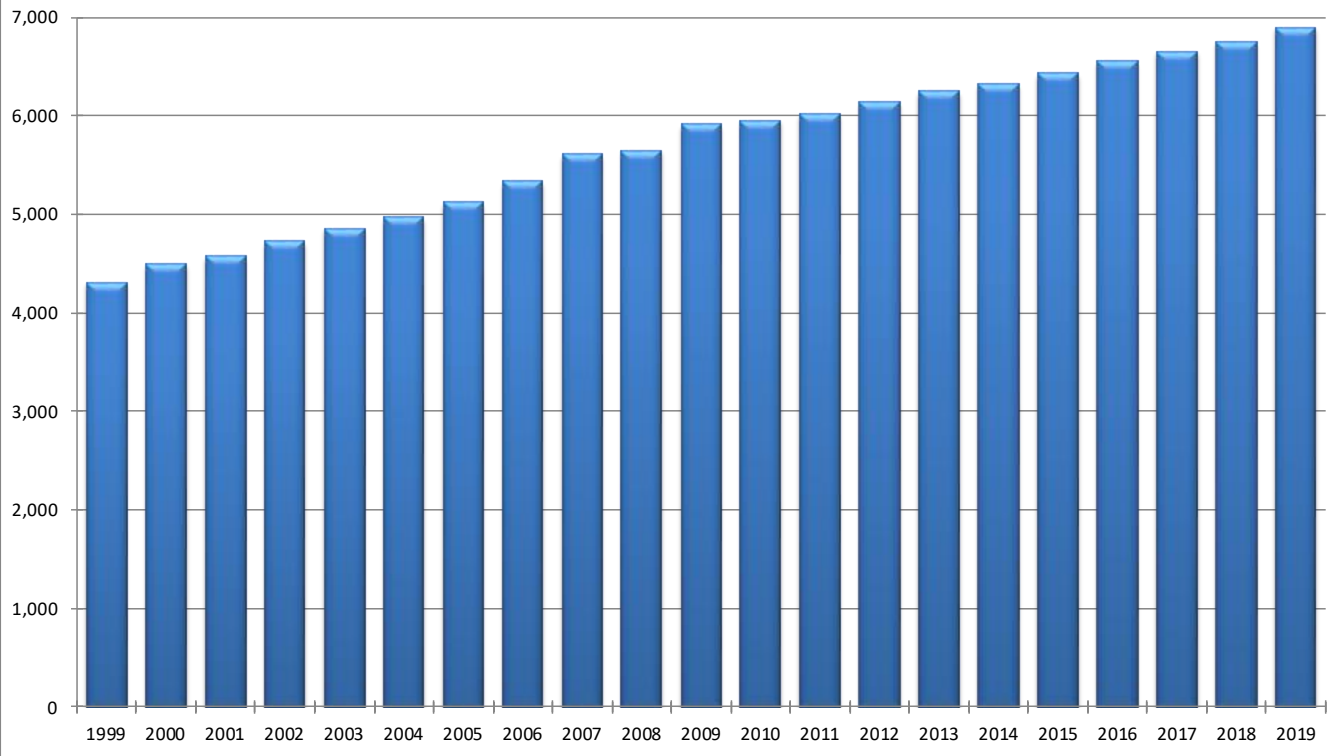
Total Paid	Number of Departments	Active Members*			Inflation Increase % (CPI)	
		Number	Annual Payroll	Average Pay		% Increase
12/31/1999	215	4,301	\$ 128,200,592	\$ 29,807	4.7 %	2.7 %
12/31/2000	228	4,493	137,294,908	30,558	2.5	3.4
12/31/2001	230	4,573	148,713,511	32,520	6.4	1.6
12/31/2002	236	4,720	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
12/31/2017	285	6,651	338,620,737	50,913	2.3	2.1
12/31/2018	290	6,755	350,639,235	51,908	2.0	1.9
12/31/2019	294	6,889	367,225,538	53,306	2.7	2.3

* Includes DROP participants, if any.

LOPFI Covered Departments - Paid Service



LOPFI Active Member Count - Paid Service



LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members) (Continued)

Volunteer Police	Number of Departments	Number of Active Members	Inflation Increase % (CPI)
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
12/31/2017	108	408	2.1
12/31/2018	118	452	1.9
12/31/2019	119	478	2.3

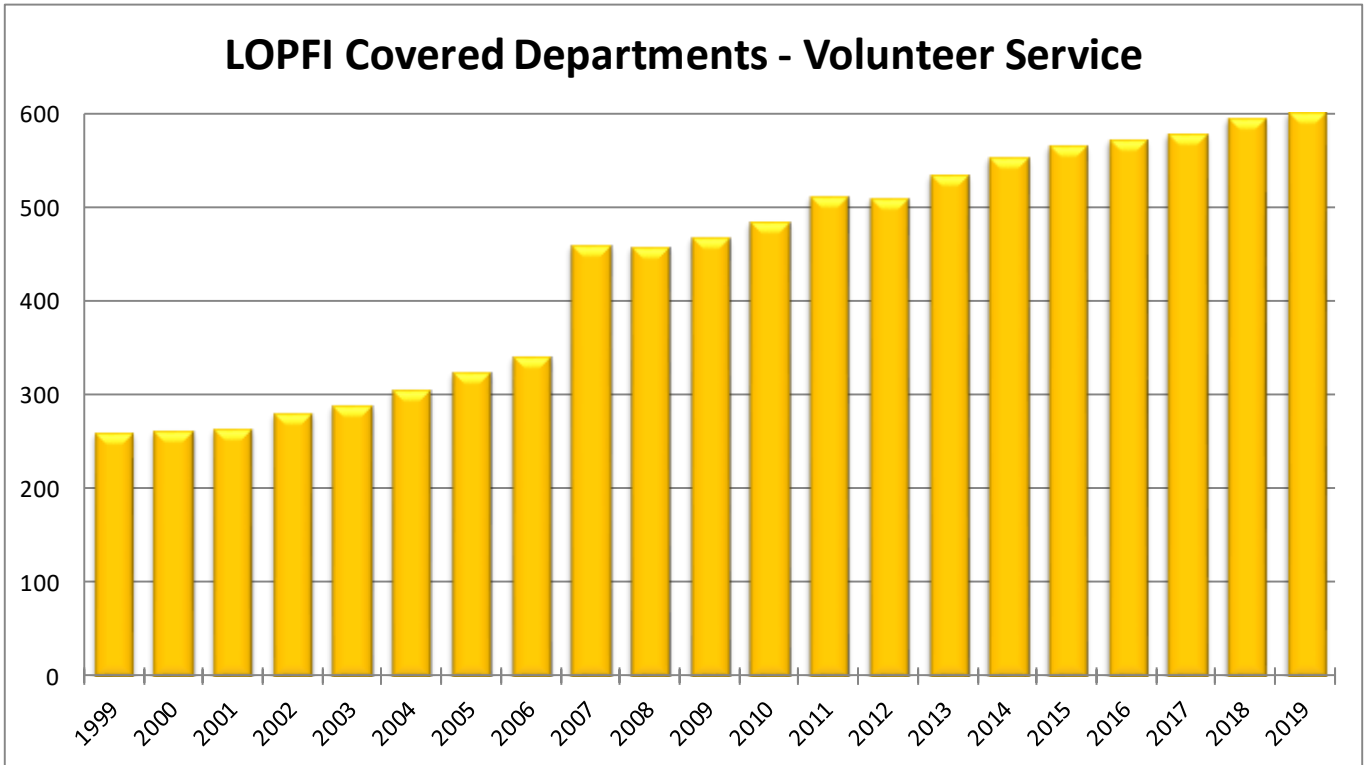
LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members) (Continued)

Volunteer Fire	Number of Departments	Number of Active Members	Inflation Increase % (CPI)
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
12/31/2017	471	6,933	2.1
12/31/2018	478	7,009	1.9
12/31/2019	482	7,055	2.3

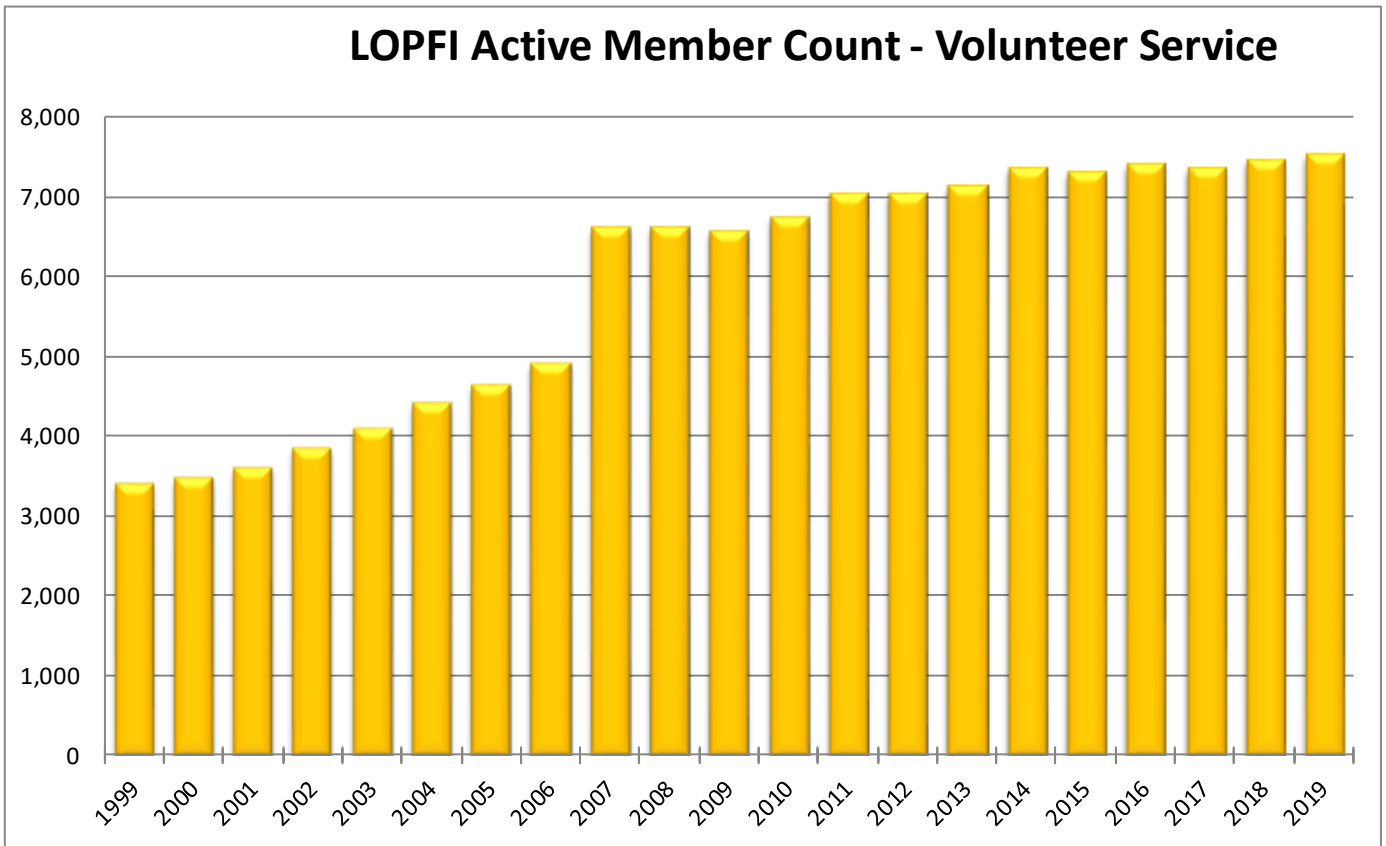
LOPFI Covered Departments and Covered Persons (Excluding Local Plan Members) (Concluded)

Total Volunteer Police and Fire	Number of Departments	Number of Active Members	Inflation Increase % (CPI)
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
12/31/2017	579	7,341	2.1
12/31/2018	596	7,461	1.9
12/31/2019	601	7,533	2.3

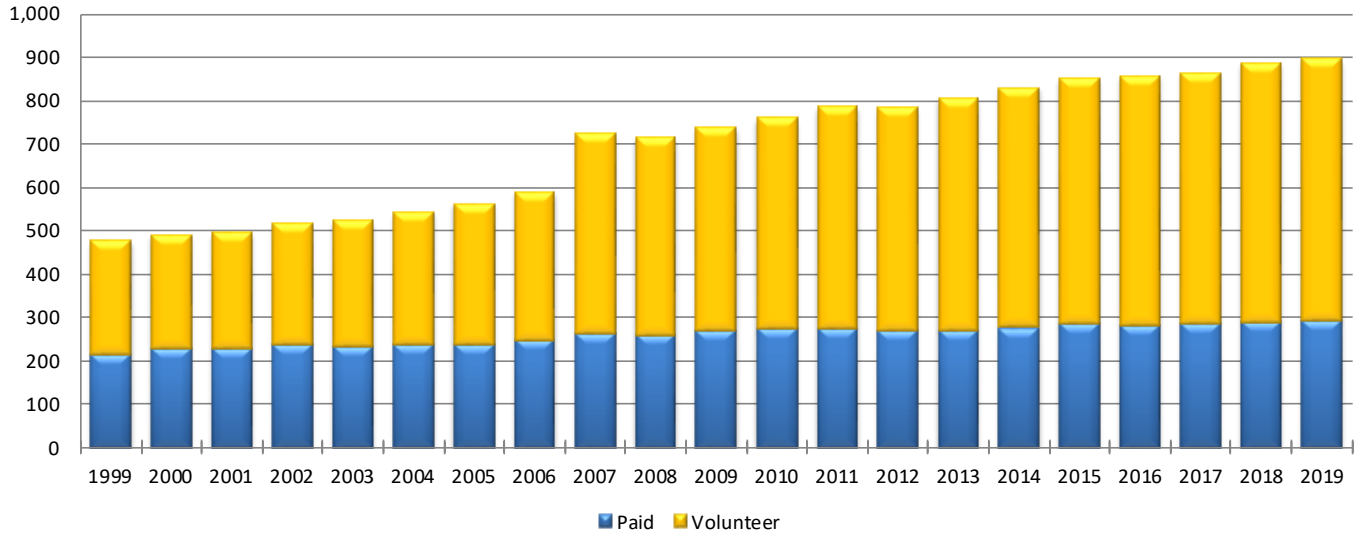
LOPFI Covered Departments - Volunteer Service



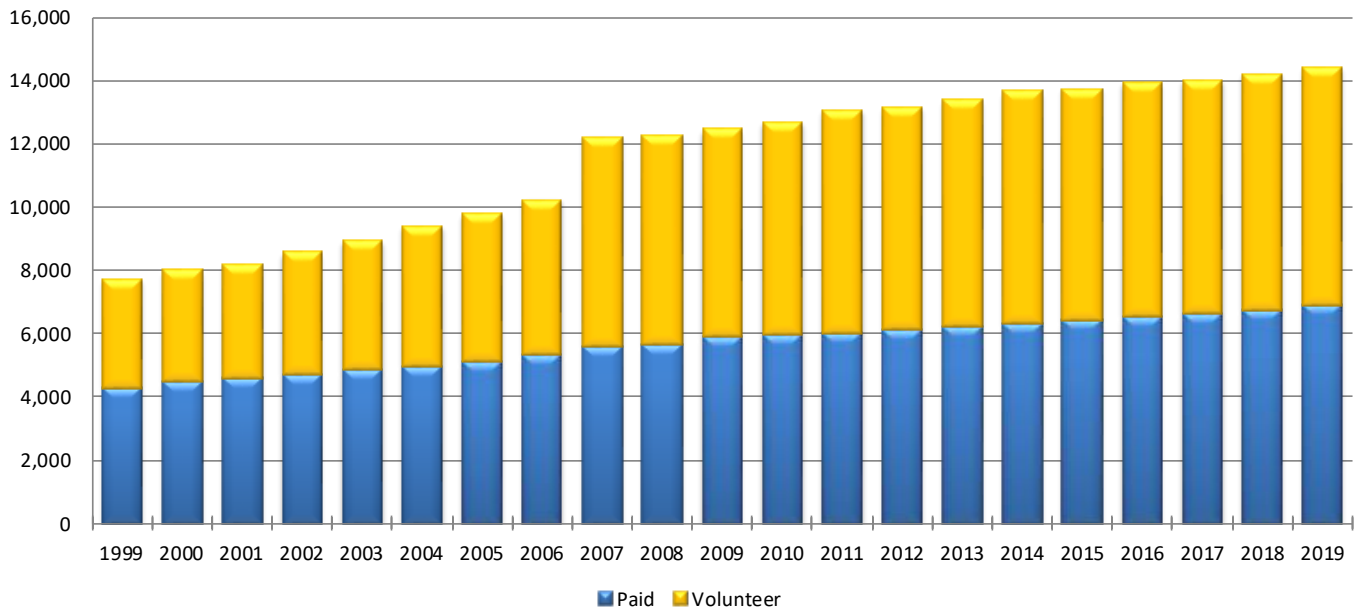
LOPFI Active Member Count - Volunteer Service



LOPFI Covered Departments - Paid and Volunteer Combined



LOPFI Active Member Count - Paid and Volunteer Combined



LOPFI (Excluding Local Plan Members) Paid Service Active Members – December 31, 2019 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	2							2	\$ 48,731
20-24	363	31						394	14,242,986
25-29	845	234	50					1,129	47,520,969
30-34	474	396	183	76				1,129	53,785,301
35-39	225	245	309	181	106			1,066	56,799,462
40-44	122	138	181	260	187	104		992	58,110,406
45-49	75	70	88	172	294	194	79	972	61,737,331
50-54	34	33	59	68	171	214	88	667	43,606,098
55-59	31	20	44	40	77	127	42	381	22,947,109
60-64	10	14	31	15	15	35	14	134	7,221,257
65-69	2	2		2	3	1	6	16	916,241
70+	3	1		1	1		1	7	289,647
Totals	2,186	1,184	945	815	854	675	230	6,889	\$ 367,225,538

* Includes DROP participants.

Average Age: 39.0 years

Average Service: 12.3 years

Average Pay: \$53,306

As a comparison, 6,755 paid service members participated in LOPFI on December 31, 2018.

LOPFI Staff is included in the table above.



**LOPFI (Excluding Local Plan Members)
Volunteer Service Active Members – December 31, 2019
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	77							77
20-24	536	65						601
25-29	482	305	51					838
30-34	402	295	224	68				989
35-39	324	253	196	198	74			1,045
40-44	236	183	147	154	129	76		925
45-49	223	160	129	125	140	127	48	952
50-54	159	136	109	98	97	86	76	761
55-59	131	94	94	111	82	53	65	630
60-64	79	61	51	50	47	28	42	358
65-69	49	42	29	25	23	17	15	200
70+	42	35	23	18	21	7	11	157
Totals	2,740	1,629	1,053	847	613	394	257	7,533

Average Age: 41.6 years

Average Service: 10.5 years

As a comparison, 7,461 Volunteer Service members participated in LOPFI on December 31, 2018.

Benefit Program 2 Departments
December 31, 2019
(Included in Paid Service Schedules)

Employer	Number of Active Members*	Payroll
Bella Vista Police	34	\$ 2,046,730
Bella Vista Fire	61	3,206,745
Fayetteville Police	130	7,899,377
Fayetteville Fire	121	8,229,330
Hot Springs Police	103	5,884,997
Hot Springs Fire	89	4,533,705
Marion Police	31	1,230,393
Sparkman Police	1	24,911
Total Benefit Program 2	570	\$ 33,056,188

* Includes DROP participants, if any.

Benefit Program 4 Departments
December 31, 2019
(Included in Volunteer Service Schedules)

Employer	Number of Active Members
Greenwood Volunteer Fire	31
Higginson Volunteer Police	4
Higginson Volunteer Fire	12
Norfolk Volunteer Police	1
Total Benefit Program 4	48

Retirants and Beneficiaries* Added to and Removed from Rolls

Comparative Statement

LOPFI Paid Service

Valuation Date		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, 2010	Retirement	138	\$ 2,819,765	11	\$ 144,330	838	\$ 14,019,120	23.59	\$ 16,729	4.85 %
	Survivor of active	10	100,894	8	62,685	88	542,622	7.58	6,166	5.13
	Survivor of retired	25	191,680	19	144,024	29	203,470	30.59	7,016	3.56
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
December 31, 2017	Retirement	352	9,567,871	33	457,772	2,693	64,137,131	16.56	23,816	2.75
	Survivor of active	11	102,949	5	19,030	101	823,483	11.35	8,153	4.73
	Survivor of retired	21	281,874	5	161,825	95	1,105,843	12.18	11,640	(6.72)
December 31, 2018	Retirement	320	9,702,523	38	398,114	2,975	73,441,540	14.51	24,686	3.65
	Survivor of active	12	83,922	5	23,899	108	883,506	7.29	8,181	0.34
	Survivor of retired	11	110,354	9	108,967	97	1,107,230	0.13	11,415	(1.93)
December 31, 2019	Retirement	380	11,370,675	30	468,181	3,325	84,344,034	14.85	25,367	2.76
	Survivor of active	20	129,798	3	21,662	125	991,642	12.24	7,933	(3.03)
	Survivor of retired	9	229,694	3	35,039	103	1,301,885	17.58	12,640	10.73

* Includes DROP participants.



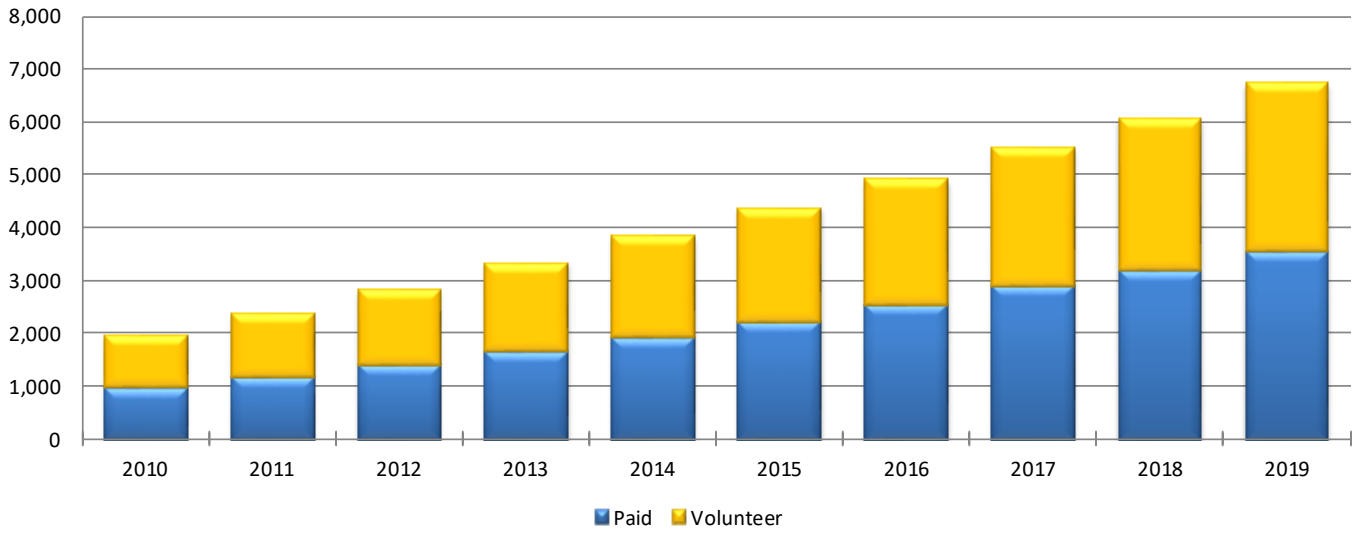
Retirants and Beneficiaries Added to and Removed from Rolls Comparative Statement (Continued)

LOPFI Volunteer Service

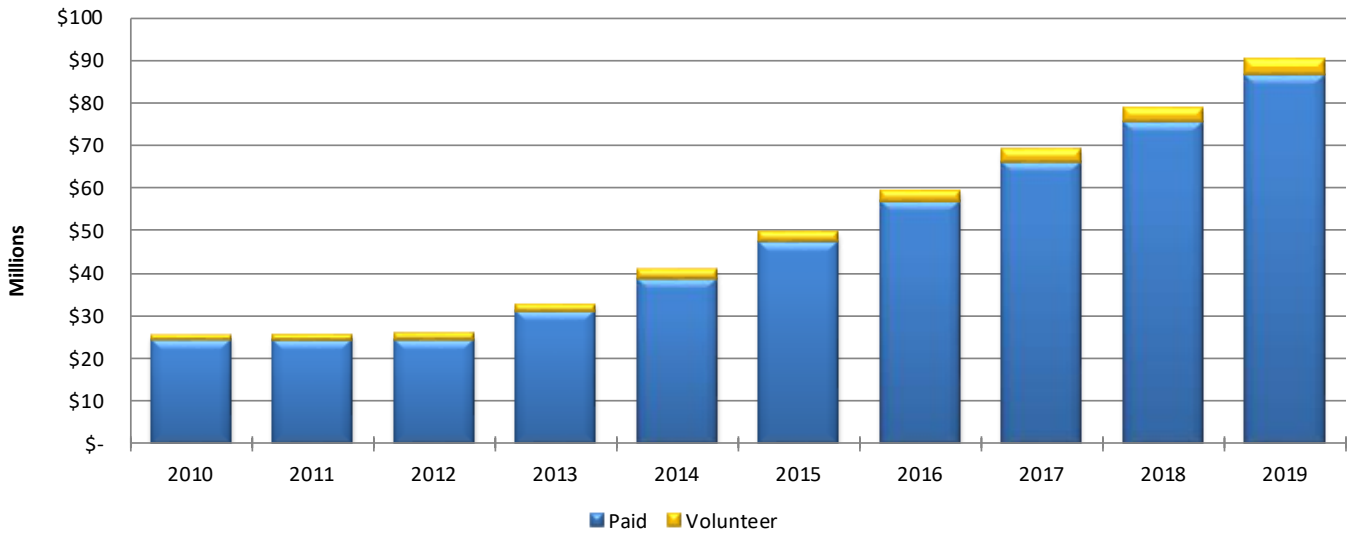
Valuation Date		Added		Removed		End of Year		% Increase in Annual Allowance	Average		
		No.	Annual	No.	Annual	No.	Annual		Annual Allowance	Annual	%
			Allowance		Allowance		Allowance			Allowance	Increase in Allowance
December 31, 2010	Retirement	182	\$ 213,270	16	\$ 15,511	887	\$ 1,025,316	23.90	\$ 1,156	0.70 %	
	Survivor of active	12	5,150	3	1,464	75	26,193	16.38	349	2.35	
	Survivor of retired	29	25,603	20	15,326	42	37,653	37.54	897	8.07	
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	
December 31, 2017	Retirement	280	357,463	35	43,329	2,320	2,790,773	12.68	1,203	0.75	
	Survivor of active	28	8,857	6	1,193	174	64,942	13.38	373	(1.06)	
	Survivor of retired	17	22,702	9	11,424	139	148,373	8.23	1,067	1.91	
December 31, 2018	Retirement	302	362,684	54	71,173	2,568	3,082,284	10.45	1,200	(0.25)	
	Survivor of active	2	2,860	8	3,113	168	64,689	(0.39)	385	3.22	
	Survivor of retired	28	38,862	15	21,944	152	165,291	11.40	1,087	1.87	
December 31, 2019	Retirement	337	426,392	61	78,585	2,844	3,430,091	11.28	1,206	0.50	
	Survivor of active	30	9,012	10	1,817	188	71,884	11.12	382	(0.78)	
	Survivor of retired	31	33,191	25	33,785	158	164,697	(0.36)	1,042	(4.14)	



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

Valuation Date		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, 2010	Retirement	118	\$ 2,666,918	28	\$ 406,946	888	\$ 18,817,741	13.65	\$ 21,191	2.13
	Survivor of active	-	1,890	-	6,122	23	346,333	(1.21)	15,058	(1.21)
	Survivor of retired	187	2,875,614	154	2,286,964	240	3,434,032	20.69	14,308	4.09
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
December 31, 2017	Retirement	122	3,554,712	35	795,031	1,264	31,553,422	9.58	24,963	2.04
	Survivor of active	2	43,909	1	7,425	23	381,919	10.56	16,605	5.75
	Survivor of retired	58	1,149,220	24	357,161	411	7,821,552	11.27	19,031	2.06
December 31, 2018	Retirement	237	8,914,833	54	1,178,112	1,447	39,290,143	24.52	27,153	8.77
	Survivor of active	4	90,907	-	-	27	472,826	23.80	17,512	5.46
	Survivor of retired	102	3,066,934	26	459,655	487	10,428,831	33.33	21,414	12.52
December 31, 2019	Retirement	22	925,524	51	1,137,359	1,418	39,078,308	(0.54)	27,559	1.50
	Survivor of active	-	2,742	2	37,378	25	438,190	(7.33)	17,528	0.09
	Survivor of retired	26	682,836	25	456,573	488	10,655,094	2.17	21,834	1.96

* Includes DROP participants.



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

Local Volunteer Service

Valuation Date		Added		Removed		End of Year		% Increase in Annual Allowance	Average		
		No.	Annual	No.	Annual	No.	Annual		Annual	Allowance	%
			Allowance		Allowance		Allowance				
December 31, 2010	Retirement	48	\$ 87,376	23	\$ 34,348	659	\$ 1,084,447	5.14	\$ 1,646	1.17	
	Survivor of active	-	211	-	-	14	21,468	0.99	1,533	0.99	
	Survivor of retired	131	181,383	113	151,528	200	272,279	12.32	1,361	2.18	
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	(11)	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	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	
December 31, 2017	Retirement	175	358,989	33	63,305	830	1,509,846	24.35	1,819	3.06	
	Survivor of active	4	4,821	-	-	17	26,767	21.97	1,575	(6.69)	
	Survivor of retired	99	190,566	24	36,316	350	579,489	36.27	1,656	7.12	
December 31, 2018	Retirement	77	225,052	41	73,666	866	1,661,232	10.03	1,918	5.44	
	Survivor of active	1	2,109	1	1,957	17	26,919	0.57	1,583	0.51	
	Survivor of retired	60	141,299	21	32,132	389	688,656	18.84	1,770	6.88	
December 31, 2019	Retirement	47	162,997	39	64,014	874	1,760,215	5.96	2,014	5.01	
	Survivor of active	1	2,054	2	3,941	16	25,032	(7.01)	1,565	(1.14)	
	Survivor of retired	28	70,009	31	53,470	386	705,195	2.40	1,827	3.22	



LOPFI (Excluding Local Plan Members)
Paid Service Retirants and Beneficiaries* – December 31, 2019
Tabulated by Attained Ages

Attained Ages	Age & Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 10					8	\$ 33,763
10-14					13	69,791
15-19					23	102,109
20-24					1	4,382
25-29					5	69,425
30-34			11	\$ 229,734	3	33,393
35-39	26	\$ 341,554	21	635,047	9	94,391
40-44	63	839,324	66	1,618,558	9	96,916
45-49	157	3,715,833	127	3,676,768	21	224,521
50-54	477	14,836,304	115	3,429,523	26	259,755
55-59	800	24,136,365	124	3,587,304	33	457,004
60-64	609	14,348,693	72	2,000,815	22	304,370
65-69	341	6,188,583	25	628,418	21	215,852
70-74	163	2,206,343	24	658,615	21	135,814
75-79	73	853,191	5	124,262	9	162,422
80-84	20	237,038			3	20,887
85-89	5	26,772	1	24,990	1	8,732
90 & Over						
Totals	2,734	\$ 67,730,000	591	\$ 16,614,034	228	\$ 2,293,527

* Includes DROP participants.

LOPFI (Excluding Local Plan Members)
Volunteer Service Retirants and Beneficiaries – December 31, 2019
Tabulated by Attained Ages

Attained Ages	Age & Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 10					19	\$ 2,054
10-14					14	2,319
15-19					32	5,026
20-24					8	745
25-29					3	2,490
30-34			3	\$ 544	4	3,443
35-39	23	\$ 13,769	8	2,873	10	4,051
40-44	46	22,102	22	10,558	16	9,085
45-49	103	64,474	43	16,876	17	10,330
50-54	242	209,336	20	9,454	30	17,533
55-59	449	564,944	25	18,364	27	17,324
60-64	563	727,693	13	10,850	37	37,378
65-69	538	726,065	8	9,783	45	38,398
70-74	354	483,327	5	5,431	37	32,417
75-79	214	300,826			28	28,888
80-84	108	143,431			15	19,029
85-89	48	75,120			3	3,602
90 & Over	9	14,271			1	2,469
Totals	2,697	\$ 3,345,358	147	\$ 84,733	346	\$ 236,581

LOPFI (Local Plan Members)
Paid Service Retirants and Beneficiaries* – December 31, 2019
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	\$ 11,664
20-24					1	42,681
25-29						
30-34						
35-39						
40-44					1	24,489
45-49					3	54,584
50-54	3	\$ 18,363			3	103,297
55-59	53	1,325,293	3	\$ 101,213	13	325,593
60-64	222	6,565,752	16	376,152	36	973,475
65-69	315	9,439,756	22	588,127	64	1,659,244
70-74	309	8,789,547	36	836,145	89	2,223,166
75-79	215	5,676,702	13	281,804	94	2,081,452
80-84	117	2,876,341	11	255,523	94	1,613,419
85-89	53	1,272,489	9	167,336	79	1,434,368
90 & Over	19	473,569	2	34,196	35	545,852
Totals	1,306	\$ 36,437,812	112	\$ 2,640,496	513	\$ 11,093,284

* Includes DROP members.

LOPFI (Local Plan Members)
Volunteer Service Retirants and Beneficiaries – December 31, 2019
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					2	\$ 605
15-19						
20-24					1	900
25-29						
30-34						
35-39						
40-44	1	\$ 2,723				
45-49						
50-54						
55-59	32	78,008			4	9,254
60-64	123	254,326			12	24,903
65-69	160	313,585	6	\$ 13,953	31	65,702
70-74	182	361,366	4	4,800	63	113,162
75-79	162	318,523	2	2,400	79	140,483
80-84	95	189,320	1	1,200	84	155,524
85-89	68	153,795			63	112,227
90 & Over	38	66,216			63	107,467
Totals	861	\$ 1,737,862	13	\$ 22,353	402	\$ 730,227

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Alexander	X		X	X		X	
Allison Sylamore						X	
Alma						X	
Alpena						X	
Alzheimer						X	
Altus	X					X	
Amity	X		X			X	
Antioch						X	
Appleton Rural						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	
Barling	X		X	X		X	
Barton-Lexa Fire Department, Inc.						X	
Batesville	X		X		X	X	
Bauxite	X		X			X	
Bay	X		X			X	
Bay Village						X	
BDR FD#1						X	
Bearden						X	
Beaver Lake				X		X	
Beaverfork						X	
Bee Branch						X	
Beebe				X		X	
Bella Vista	X			X			
Belleville						X	
Benton	X		X		X		
Bentonville	X		X		X	X	
Bergman						X	
Berryville	X		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	

LOPFI Participating Department by Employer December 31, 2019

Employer	POLICE			FIRE			OTHER
	<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>	
Booneville						X	
Boston Mountain						X	
Bradford	X		X			X	
Bradley	X		X			X	
Bradley County Rural						X	
Brinkley		X	X		X	X	
Brookland	X		X				
Brookland Fire Protection District						X	
Bruno Fire Protection District						X	
Bryant	X		X		X		
Buena Vista						X	
Buford				X		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		X	
Cave Springs	X		X			X	
Center						X	
Center Grove						X	
Centerton	X		X		X	X	
Central City			X			X	
Chambersville						X	
Charleston						X	
Charlotte						X	
Cherokee Village	X		X	X		X	
Cherry Hill						X	
Cherry Valley	X		X			X	
Chidester						X	
Chimes						X	
Choctaw						X	
Cincinnati						X	
Clarendon	X					X	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Clarksville	X					X	
Clinton	X			X		X	
Coal Hill	X		X			X	
Collegeville						X	
Colt						X	
Compton						X	
Concord	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	
Cottonwood Rural Fire Assoc						X	
County Line						X	
Cove Rural						X	
Crawfordsville						X	
Crossett	X		X		X	X	
Crow Mountain Fire Protection Dist						X	
Crystal Fire Protection District						X	
Curtis Rural						X	
Dalton						X	
Damascus						X	
Danville						X	
Dardanelle	X		X			X	
De Queen	X				X	X	
Deann						X	
Decatur	X		X			X	
Deer						X	
Delaware						X	
Dermott	X					X	
Des Arc	X		X			X	
Desha						X	
Devalls Bluff						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					X	
East End Fire Protection District						X	
East Pulaski County						X	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
El Dorado		X			X		
Elaine						X	
Elkins	X		X	X		X	
Elm Springs	X		X				
Emmet						X	
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		
Fifty Six						X	
Fire District #6 Crawford Co						X	
Fisher						X	
Flippin	X		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	
Garnett						X	
Gassville	X		X	X		X	
Gentry	X		X			X	
Gillett	X					X	
Gillham						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	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Greenland	X		X				
Greenwood	X				X	X	
Greenwood Rural						X	
Greers Ferry	X					X	
Grover Township						X	
Grubbs						X	
Gum Springs						X	
Gurdon						X	
Guy Community						X	
Hackett	X		X			X	
Hagarville RFD #3						X	
Halley						X	
Hamburg						X	
Hampton	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	
Haskell	X		X	X		X	
Hatfield						X	
Hazen						X	
Heber Springs	X				X	X	
Hector	X		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		X	X		X	
Highway 15 South						X	
Highway 286 East						X	
Highway 70 West FPA						X	
Highway 94 East						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	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Horatio						X	
Horseshoe Lake						X	
Hot Springs		X			X		
Hot Springs Village	X			X		X	
Hoxie	X		X		X	X	
Hughes	X					X	
Humphrey	X					X	
Huntington	X					X	
Huntsville	X		X			X	
Huttig	X					X	
Imboden						X	
Inspiration Point Rural Fire Protec						X	
Ione Community						X	
Jacksonville	X				X		
Jasper	X					X	
Johnson	X			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		X			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	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Liberty						X	
Lincoln	X		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 Staff							X
Louann						X	
Lowell	X		X		X	X	
Luxora						X	
Lynne						X	
Magazine						X	
Magnolia	X		X		X	X	
Malvern	X				X	X	
Mammoth Spring						X	
Manila	X			X		X	
Mansfield	X					X	
Marble						X	
Marianna	X			X		X	
Marion	X		X	X		X	
Marked Tree	X					X	
Marmaduke	X		X			X	
Marshall	X		X			X	
Marvell	X		X			X	
Maumelle		X			X	X	
Mayflower	X		X	X		X	
Maynard						X	
McCrary	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	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Mount Ida						X	
Mountain Home	X		X		X	X	
Mountain Pine	X		X				
Mountain View	X		X			X	
Mountainburg	X		X			X	
Mt Judea Area						X	
Mulberry	X					X	
Murfreesboro	X					X	
Nashville					X	X	
Natural Dam						X	
New Blaine Rural						X	
Newark						X	
Newport	X		X		X	X	
Nimrod/Aplin						X	
Nob Hill					X	X	
Norfolk			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 Dis						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			X	
Osceola	X		X		X	X	
Ouachita Co FD #1						X	
Oxley						X	
Ozark	X		X	X		X	
Pangburn	X		X			X	
Paragould	X		X		X	X	
Paris						X	
Parkin						X	
Parthenon						X	
Patterson			X			X	
Pea Ridge	X		X			X	
Peel						X	
Perryville	X					X	
Philadelphia						X	
Piggott						X	
Pine Bluff		X	X		X		
Pine Ridge						X	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Pine Village						X	
Pineville						X	
Piney Point						X	
Plainview						X	
Pleasant Plains						X	
Plumerville						X	
Pocahontas	X		X		X	X	
Ponca						X	
Portland	X					X	
Pottsville	X		X			X	
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	
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	
Sherwood	X						
Siloam Springs	X				X	X	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Sixth District						X	
Smackover	X		X			X	
Smyrna						X	
Snowball						X	
South Carroll Co Fire Assoc						X	
South Greene County						X	
South Mountain						X	
Southbend						X	
Southridge						X	
Southside						X	
Sparkman	X		X			X	
Springdale	X				X		
St. Francis						X	
Stamps	X					X	
Star City	X		X			X	
Stephens	X					X	
Strawberry						X	
Strickler						X	
Strong	X					X	
Stuttgart	X				X	X	
Sulphur	X		X			X	
Sulphur Rock						X	
Summit						X	
Sunnyland Rural						X	
Sunset Rural						X	
Swifton	X					X	
Taylor						X	
Texarkana		X	X		X		
Thornton						X	
Tillar						X	
Timbo						X	
Tinsman						X	
Tontitown	X		X	X			
Tontitown Area						X	
Town of St. Charles						X	
Tracy Area						X	
Trumann	X		X		X	X	
Tuckerman	X		X			X	
Tull Fire & Rescue						X	
Turrell						X	
Turtle Creek						X	
Tyronza	X		X			X	
Umpire						X	
Valley Springs						X	
Van Buren	X		X		X		
Vandervoort Rural						X	
Velvet Ridge Fire Protection Distr						X	
Vilonia	X		X	X		X	
Viola						X	

LOPFI Participating Department by Employer December 31, 2019

<u>Employer</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>	
Wabbaseka						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	
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			X	
Whitehouse						X	
Wickes RVFD #2						X	
Williams Junction						X	
Wilmar						X	
Wilmot	X					X	
Wilson	X					X	
Wilton						X	
Winchester						X	
Woodlawn						X	
Wright-Pastoria						X	
Wynne	X				X	X	
Y-City						X	
Yellville						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, years and often decades later?

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.***

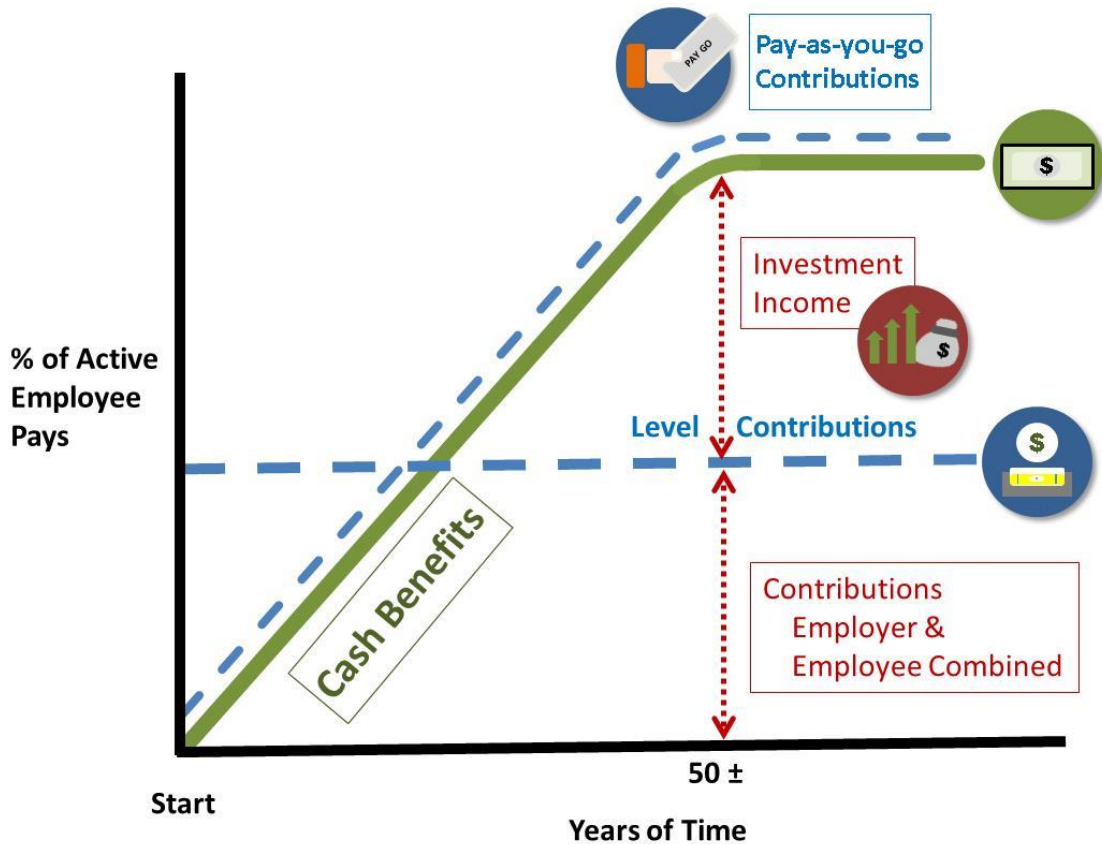
An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; the rates of withdrawal of active members who leave covered employment before qualifying for any monthly benefit; the rates of mortality; the rates of disability; the rates of pay increases; 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 department and in aggregate for participating volunteer departments. 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.

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

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 the valuation was 7.50% 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 3.25% wage inflation assumption, the 7.50% investment return rate translates to an assumed real rate of return of 4.25%.

Price inflation was assumed to be 2.50% 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 3.25% recognizes wage inflation.

Total active member payroll is assumed to increase 3.25% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation.

The number of active members is assumed to remain constant at the present level of LOPFI active members.

NON-ECONOMIC ASSUMPTIONS -----

The mortality tables used to measure retired life mortality were the RP-2014 Healthy Annuitant benefit weighted generational mortality tables for males and females. The disability post-retirement mortality tables used were the RP-2014 Disabled Retiree benefit weighted generational mortality tables for males and females. The death-in-service mortality tables used were the RP-2014 Employee benefit weighted generational mortality tables for males and females. Fifty percent of deaths-in-service were assumed to be duty related. The tables applied credibility adjustments of 135% for males and 125% for females and were adjusted for fully generational mortality improvements using Scale MP-2016. Related retired life mortality values are shown in Schedule A-1.

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 \$6.96 effective July 1, 2020 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 \$11.27 effective July 1, 2020 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%.

Active 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. We assume on average the DROP duration for members currently in the DROP is 5 years.

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 16.5-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
2019	\$ 100,000	8.91%	14.26%	23.17%	\$ 23,170
2020	103,250	8.91%	14.26%	23.17%	23,923
2021	106,606	8.91%	14.26%	23.17%	24,701
2022	110,070	8.91%	14.26%	23.17%	25,503
2023	113,648	8.91%	14.26%	23.17%	26,332
2024	117,341	8.91%	14.26%	23.17%	27,188
2025	121,155	8.91%	14.26%	23.17%	28,072
2026	125,092	8.91%	14.26%	23.17%	28,984
2027	129,158	8.91%	14.26%	23.17%	29,926
2028	133,355	8.91%	14.26%	23.17%	30,898
2029	137,689	8.91%	14.26%	23.17%	31,903
2030	142,164	8.91%	14.26%	23.17%	32,939
2031	146,785	8.91%	14.26%	23.17%	34,010
2032	151,555	8.91%	14.26%	23.17%	35,115
2033	156,481	8.91%	14.26%	23.17%	36,257
2034	161,566	8.91%	14.26%	23.17%	37,435
2035	166,817	8.91%	14.26%	23.17%	38,652
2036	172,239	8.91%	14.26%	23.17%	39,908
2037	177,837	8.91%	14.26%	23.17%	41,205
2038	183,616	8.91%	0.00%	8.91%	16,360
2039	189,584	8.91%	0.00%	8.91%	16,892
2040	195,745	8.91%	0.00%	8.91%	17,441
2041	202,107	8.91%	0.00%	8.91%	18,008
2042	208,675	8.91%	0.00%	8.91%	18,593
2043	215,457	8.91%	0.00%	8.91%	19,197
2044	222,460	8.91%	0.00%	8.91%	19,821
2045	229,690	8.91%	0.00%	8.91%	20,465
2046	237,155	8.91%	0.00%	8.91%	21,130
2047	244,862	8.91%	0.00%	8.91%	21,817

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 16.5-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
2019	\$ 6.96	10	\$ 24.39	\$ 34.61	\$ 59.00	\$ 7,080
2020	7.13	10	25.00	34.61	59.61	7,153
2021	7.31	10	25.63	34.61	60.24	7,229
2022	7.49	10	26.27	34.61	60.88	7,306
2023	7.68	10	26.93	34.61	61.54	7,385
2024	7.87	10	27.60	34.61	62.21	7,465
2025	8.07	10	28.29	34.61	62.90	7,548
2026	8.27	10	29.00	34.61	63.61	7,633
2027	8.48	10	29.73	34.61	64.34	7,721
2028	8.69	10	30.47	34.61	65.08	7,810
2029	8.91	10	31.23	34.61	65.84	7,901
2030	9.13	10	32.01	34.61	66.62	7,994
2031	9.36	10	32.81	34.61	67.42	8,090
2032	9.59	10	33.63	34.61	68.24	8,189
2033	9.83	10	34.47	34.61	69.08	8,290
2034	10.08	10	35.33	34.61	69.94	8,393
2035	10.33	10	36.21	34.61	70.82	8,498
2036	10.59	10	37.12	34.61	71.73	8,608
2037	10.85	10	38.05	34.61	72.66	8,719
2038	11.12	10	39.00	0.00	39.00	4,680
2039	11.40	10	39.98	0.00	39.98	4,798
2040	11.69	10	40.98	0.00	40.98	4,918
2041	11.98	10	42.00	0.00	42.00	5,040
2042	12.28	10	43.05	0.00	43.05	5,166
2043	12.59	10	44.13	0.00	44.13	5,296
2044	12.90	10	45.23	0.00	45.23	5,428
2045	13.22	10	46.36	0.00	46.36	5,563

@ 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 \$6.96 effective July 1, 2020. For purposes for this illustration, the factor was assumed to increase by 2.50% 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-2014 Healthy Annuitant
Generational Mortality Tables
and 7.50% Interest
(First Used for December 31, 2017 Valuations)

Sample Attained Ages	Probability of Dying Next Year*		Value at Retirement: \$1.00 Monthly for Life		Future Life Expectancy (years)*					
	Men	Women	Men	Women	2019		2024		2029	
35	0.172%	0.136%	\$ 154.40	\$ 156.88	46.44	50.12	47.00	50.63	47.56	51.15
40	0.253%	0.207%	150.68	154.04	41.34	45.00	41.88	45.50	42.42	46.01
45	0.361%	0.262%	145.96	150.44	36.39	40.00	36.91	40.49	37.43	40.98
50	0.529%	0.332%	139.98	145.59	31.59	35.06	32.10	35.54	32.60	36.01
55	0.761%	0.465%	132.60	139.08	27.00	30.21	27.48	30.67	27.96	31.13
60	1.069%	0.697%	123.50	130.81	22.62	25.54	23.07	25.97	23.51	26.40
65	1.541%	1.041%	112.48	120.62	18.50	21.12	18.89	21.50	19.29	21.90
70	2.296%	1.607%	99.36	108.10	14.67	16.94	15.00	17.29	15.36	17.65
75	3.643%	2.619%	84.10	93.15	11.17	13.08	11.46	13.40	11.76	13.72
80	6.127%	4.474%	67.38	76.34	8.08	9.64	8.34	9.92	8.59	10.19

* Life expectancies in future years are determined by the fully generational MP-2016 projection scale.

Sample Attained Ages	Benefit Increasing 3.00% Yearly	Portion of Age 55 Lives Still Alive	Sample Attained Ages
55	\$100	100 %	55
60	116	95	60
65	134	89	65
70	156	81	70
75	181	69	75
80	209	54	80

Schedule A-2 Probabilities of Disability Retirement

Paid Service Members (First Used for December 31, 2017 Valuations)

Sample Ages	Percent Becoming Disabled within Next Year	
	Non-Duty	Duty
20	0.07 %	0.12 %
25	0.07	0.12
30	0.10	0.15
35	0.13	0.21
40	0.20	0.32
45	0.31	0.49
50	0.52	0.84
55	0.91	1.45
60	1.36	2.18

Volunteer Service Members (First Used for December 31, 2017 Valuations)

Sample Ages	Percent Becoming Disabled within Next Year	
	Non-Duty	Duty
20	0.04 %	0.00 %
25	0.04	0.00
30	0.04	0.00
35	0.04	0.00
40	0.09	0.01
45	0.12	0.01
50	0.23	0.02
55	0.41	0.04
60	0.65	0.06

Schedule A-3

Probabilities of Retirement for Members Eligible to Retire (First Used for December 31, 2017 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	6 %			
50-54	6			
55		18 %	28	20 %
56		15	29	15
57		15	30	15
58		15	31	15
59		15	32	15
60		20	33	25
61		15	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).

We assume on average the DROP duration (for members currently in the DROP) is 5 years. Active 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.

Schedule A-3
Probabilities of Retirement for Members Eligible to Retire
(Concluded)
(First Used for December 31, 2017 Valuations)

Volunteer Service Members

Retirement Ages	Percents of Active Members Retiring within Next Year	
	Early	Normal
Under 50		18 %
50-54	2.5 %	18
55-59		15
60-64		10
65-69		15
70-74		20
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, 2017 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	9.42
30		7.92
35		6.07
40		4.84
45		3.87
50		3.08
55		0.88
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	9.50
30		9.50
35		9.50
40		9.50
45		9.50
50		9.50
55		9.50
60		9.50

Schedule A-5
Pay Increase Assumptions
for an Individual Paid Service Member
(First Used for December 31, 2017 Valuations)

Pay Increase Assumptions for an Individual Member			
Service Years	Merit and Seniority	Base (Economic)	Increase Next Year
1	15.00%	3.25%	18.25%
2	9.00%	3.25%	12.25%
3	4.00%	3.25%	7.25%
4	3.00%	3.25%	6.25%
5	2.00%	3.25%	5.25%
6	1.50%	3.25%	4.75%
7	1.50%	3.25%	4.75%
8	1.50%	3.25%	4.75%
9	1.00%	3.25%	4.25%
10	1.00%	3.25%	4.25%
11	0.50%	3.25%	3.75%
12	0.50%	3.25%	3.75%
13	0.50%	3.25%	3.75%
14	0.50%	3.25%	3.75%
15	0.50%	3.25%	3.75%
16	0.50%	3.25%	3.75%
17	0.50%	3.25%	3.75%
18	0.50%	3.25%	3.75%
19	0.50%	3.25%	3.75%
20+	0.50%	3.25%	3.75%