

**ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM  
JONESBORO PAID FIRE COMBINED PLANS  
AN ANNUAL ACTUARIAL VALUATION  
DECEMBER 31, 2009**

GABRIEL ROEDER SMITH & COMPANY

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**LOPFI Members, Paid Service**  
**and**  
**Relief and Pension Fund Members (Closed Plan), Paid Service**

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June 14, 2010

Jonesboro Paid Fire  
Jonesboro, Arkansas

RE: PAID SERVICE FIREMEN NOT COVERED BY SOCIAL SECURITY  
Coverage by Two Plans

Ladies and Gentlemen:

*Submitted in this report* are the results of *the actuarial valuations* which determine the employer contribution rates required to support, for your employees, the benefits provided by:

- The Arkansas Local Police and Fire Retirement System ("LOPFI")  
LOPFI Plan Coverage (For Employees Hired After December 31, 1982)  
and
- Closed Plan" Coverage (The Relief and Pension Fund For Employees  
Hired Before January 1, 1983).

*The date of the valuations* was December 31, 2009. The valuations were based on data furnished by your LOPFI administrative staff.

*The new combined employer contribution rate* is shown on page 5.

*The financial assumptions* used to determine contributions are described in the Appendices of this report. In our opinion, they produce results which are reasonable.

The actuaries submitting this statement are Members of the American Academy of Actuaries (M.A.A.A.) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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

Respectfully submitted,

Mita D. Drazilov, A.S.A., M.A.A.A.

David L. Hoffman

**Relationships Between  
LOPFI Plan Coverage (For Employees Hired After December 31, 1982)  
"Closed Plan" Coverage (The Relief and Pension Fund For  
Employees Hired Before January 1, 1983)**

***LOPFI Plan.*** The valuation results contained within the LOPFI material on pages 8-23 are the same as they would have been if LOPFI had not begun to administer the Closed Plan.

Closed Plan administration may cause one modification of future LOPFI financial activity: if the length of the financing period for unfunded liabilities causes Closed Plan assets to temporarily dip below zero, LOPFI would loan the shortages until the financing period is completed. When the Closed Plan financing period is completed, LOPFI will have been fully repaid (including investment credits) and the Closed Plan will be fully funded.

***Closed Plan.*** The financing period for Closed Plan unfunded liabilities is 27 years, from December 31, 2009. This period is longer than the previous financing periods, and is reasonable only because of the ability to borrow from LOPFI should Closed Plan assets temporarily dip below zero.

The longer the financing period for unfunded liabilities, the lower the employer contribution rate during the financing period.

***Employer Contribution Rate.*** Each year the actuarial valuation determines a single employer contribution rate percent which covers the combination of LOPFI and the Closed Plan. The single, combined contribution rate percent is converted to dollars by multiplying the percent by the active member total payroll dollars (LOPFI and Closed Plan payrolls combined). This procedure is described on page 5.

The LOPFI account is credited with dollars in the manner described on page 15, which is the basic LOPFI-only procedure.

The Closed Plan account is credited with the difference between (i) the total, combined contribution dollars and (ii) the LOPFI-only contribution dollars.

**Jonesboro Paid Fire  
Arkansas Firemen's Relief and Pension Fund  
Benefit Provisions Valued and/or Considered  
(Includes Act 397)  
December 31, 2009**

**Voluntary Retirement**

Eligibility - 20 years of service regardless of age.

Amount - Annual benefit equal to 75% of highest year's pay plus an additional \$8,400. If acquired more than 20 years of service credit, benefit is increased by \$240 annually for each additional year of service credit. (Maximum: \$1,200 annual addition). If acquired more than 25 years of service credit, retirant's benefit is increased at age 60 by 1.25% of highest year's pay for service over 25 years. (Maximum benefit is 100% of final salary).

**Disability Retirement**

Eligibility - Permanent physical or mental disability.

Amount - (Non-Duty Disability) Computed as voluntary retirement benefit.  
(Duty Disability) Annual benefit is equal to the greater of voluntary retirement benefit or 65% of final salary. Temporary hospital, nursing and weekly sick benefits may also be available.

**Death Benefits**

Eligibility - Death before 20 years of service not occurring while performing work in gainful employment outside the fire department or death after 20 years of service. Also applicable to retired members.

Amount - Widow receives the benefit the member was receiving or, in the case of an active employee, the amount the member would have received had the member retired the date of death. (Excluding the additional amount payable at member's age 60 for service over 25 years). Minimum widow benefit is \$6,000 annually. Each minor child receives \$1,500 annually to age 19.

**Member Contributions**

Paid employees contribute 6% of salary.

Member contributions are refundable without interest if termination of employment occurs before monthly benefits are payable.

**Jonesboro Paid Fire  
PAID SERVICE FIREMEN  
NOT COVERED BY SOCIAL SECURITY**

**COMBINED EMPLOYER CONTRIBUTIONS TO PROVIDE LOPFI MEMBER BENEFITS  
& CLOSED PLAN BENEFITS  
Employer Portion is State and Local Combined**

**Computed December 31, 2009**

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<u>Contributions</u>	<u>% of Active Combined Payroll</u>
Employer Normal Cost For LOPFI Benefits	12.89%
Unfunded accrued liabilities (27 years remaining)	<u>19.80%</u>
<b>COMPUTED EMPLOYER RATE FOR COMBINED BENEFITS</b>	<b>32.69%</b>

Determining Employer Dollar Contributions

For each month, the percent-of-payroll combined contribution rate is converted to dollars --- and then promptly contributed to LOPFI.

Based upon the combined annual payroll submitted for this valuation, \$5,023,778, the annual employer contribution dollars would be \$1,642,273.

However, in budgeting combined dollars for a fiscal period, be sure you use the payroll dollars you are budgeting for that same fiscal period (which will probably be different than the payroll dollars reported here).

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When combined contribution dollars are received by LOPFI, they are allocated between the two Plans as described on page 3.

**Jonesboro Paid Fire  
Historical Schedule**

<b>Actuarial Valuation Date</b>	<b>Number</b>	<b>Payroll</b>	<b>Average Age (years)</b>	<b>Average Service (years)</b>	<b>Assets</b>	<b>Actuarial Accrued Liability</b>	<b>Final Employer Rate</b>
12-31-97	73	1,976,806	34.4	9.2	2,698,436	4,301,238	24.55%
12-31-98	68	1,829,455	33.5	8.2	(263,563)	3,199,180	22.76%
12-31-99	77	2,062,641	33.3	7.2	2,762,973	4,033,090	16.45%
12-31-00	79	2,343,189	34.1	8.7	4,051,253	5,979,518	17.61%
12-31-01	83	2,554,281	34.3	8.5	4,869,801	5,158,507	9.98%
12-31-02	85	2,808,209	35.3	9.6	5,300,414	6,961,763	14.80%
12-31-03	87	2,982,798	36.0	10.3	3,986,097	8,020,146	20.50%
12-31-04	87	3,173,030	36.6	11.0	3,946,973	10,148,493	25.61%
12-31-05	91	3,417,216	37.0	11.3	3,619,845	10,304,897	25.58%
12-31-06	95	3,675,505	37.1	11.7	6,022,577	13,706,459	26.42%
12-31-07	112	4,358,433	36.4	10.8	7,854,469	16,552,990	26.07%
12-31-08	105	4,351,531	36.9	12.1	4,251,879	19,010,693	31.87%
12-31-09	111	5,023,778	37.7	13.2	3,368,723	20,841,220	32.69%

## Jonesboro Paid Fire

### Certain Disclosures Required by Statements No. 25 and No. 27 of the Governmental Accounting Standards Board

January 1, 2010

#### Required Supplementary Information:

For 2009, the political subdivision's annual pension cost of \$1,444,130 was equal to the required and actual contributions. The required contribution was determined as part of the December 31, 2007 annual actuarial valuation using the entry age actuarial cost method. The actuarial assumptions effective for the 2009 valuation included (a) a rate of return on the investment of present and future assets of 8.0% per year, (b) projected salary increases of 4.0% per year, compounded annually, attributable to wage inflation, (c) additional projected salary increases ranging from 0.0% to 6.0% per year, depending on age, attributable to seniority/merit, (d) the assumption that benefits will increase 3% per year after retirement (LOPFI members only), and (e) pre- and post-retirement mortality based on the RP-2000 Combined Projected to 2007 Table, set forward two years for men. The actuarial value of assets was determined using techniques that smooth the effects of short-term volatility in the market value of investments over a five-year period. The unfunded actuarial accrued liability is being amortized as a level percentage of valuation payroll. The amortization period for Closed Group unfunded liabilities at December 31, 2009 was 27 years.

#### COMBINED EMPLOYER CONTRIBUTIONS TO PROVIDE LOPFI MEMBER BENEFITS & CLOSED PLAN BENEFITS

#### Employer Portion is State and Local Combined REQUIRED SUPPLEMENTARY INFORMATION

#### Schedule of Funding Progress

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Entry-Age Actuarial Accrued Liability	(b-a) Unfunded Accrued Liability (UAL)	(a/b) Funded Ratio	(c) Annual Covered Payroll	[(b-a)/c] UAL as a Percentage of Covered Payroll
12-31-97	2,698,436	4,301,238	1,602,802	63%	1,976,806	81%
12-31-98	(263,563)	3,199,180	3,462,743	0%	1,829,455	189%
12-31-99	2,762,973	4,033,090	1,270,117	69%	2,062,641	62%
12-31-00	4,051,253	5,979,518	1,928,265	68%	2,343,189	82%
12-31-01*	4,869,801	5,158,507	288,706	94%	2,554,281	11%
12-31-02*	5,300,414	6,961,763	1,661,349	76%	2,808,209	59%
12-31-03*	3,986,097	8,020,146	4,034,049	50%	2,982,798	135%
12-31-04*	3,946,973	10,148,493	6,201,520	39%	3,173,030	195%
12-31-05	3,619,845	10,304,897	6,685,052	35%	3,417,216	196%
12-31-06	6,022,577	13,706,459	7,683,882	44%	3,675,505	209%
12-31-07	7,854,469	16,552,990	8,698,521	47%	4,358,433	200%
12-31-08*	4,251,879	19,010,693	14,758,814	29%	4,351,531	339%
12-31-09	3,368,723	20,841,220	17,472,497	16%	5,023,778	348%

\* After changes in actuarial assumptions and/or benefit changes.



**Brief Summary As of December 31, 2009**  
**LOPFI Coverage for Paid Service**  
**Benefits and Conditions Evaluated and/or Considered**  
**(Section references are to Arkansas Code, including**  
**amendments from the 2009 General Assembly Session)**

*Voluntary Retirement.* Section 24-10-604. A member may retire with an age & service annuity after both (i) completing 5 years of credited service, and (ii) attaining his normal retirement age.

The normal retirement age is age 60 for a member with less than 20 years credited service, and 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 2009 is \$1,244.

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

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

**Early Annuity.** Section 24-10-606. A member may retire with an early annuity after both: (i) completing 20 years of credited service, and (ii) attaining age 50 or (iii) after completing 25 years of credited paid service.

The early annuity amount, payable monthly for life, is computed in the same manner as an age & service annuity, based upon his service and pay record to time of early retirement, but reduced to reflect the fact that his age when payments begin is younger than his normal retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month his age at early retirement is younger than his normal retirement age (age 55 for members with 25 years of credited paid service).

**Vested Termination Annuity.** Section 24-10-611. If a member leaves LOPFI-covered employment (i) before attaining his early retirement age, and (ii) after completing 5 years of credited service, he becomes eligible for a vested termination annuity; provided he lives to his normal retirement age and does not withdraw his accumulated contributions.

The vested annuity amount, payable monthly for life from his normal retirement age, is computed in the same manner as an age & service annuity, based upon his service record to time of leaving LOPFI coverage. However, final average pay is increased by one-half of any increase in the inflation index for the period from termination of employment to beginning of annuity payments.

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

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

***Non-Duty Death-in-Service.*** 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 of paid service, his eligible surviving dependents receive the following benefits:

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

***Duty Death-in-Service.*** Section 24-10-608(b)(1). Upon the death of a Paid Service member from duty-connected causes, regardless of length of service, his eligible surviving dependents receive the same benefits as for Non-Duty Death, except that if credited service at 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.*** Sections 24-10-404 and 24-10-613. Each member contributes 8.5% of his covered pay if his covered employment is resulting in Paid Service credit and is not covered by Social Security. For other covered employment conditions, each member contributes 2.5% of his covered pay.

If a member leaves LOPFI-covered employment before an annuity is payable on his behalf, his accumulated contributions are refunded to him. If he dies, his accumulated contributions are refunded to his designated beneficiary.

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

***DROP (Deferred Retirement Option Plan).*** Sections 24-10-701 through 24-10-708. Paid service members who have attained age 55 with at least 20 years of service or members with at least 28 years of service may participate. Participants with 28 years of service will receive 75% of accrued benefit at time of DROP election while in DROP, payable into the participant's DROP account (which will be credited with 6% interest annually). Participants with less than 28 years of service will receive 72% of accrued benefit at time of DROP election while in DROP, payable into the participant's DROP account (which will be credited with 6% interest annually). Employer and employee contributions continue. For additional details please refer to Arkansas Code, Title 24, Chapter 10, Subchapter 7.

**LOPFI**  
**Illustrations of Normal Benefit Amounts**

**FOR PAID SERVICE WHICH IS NOT COVERED BY SOCIAL SECURITY**  
**(The applicable Benefit Program is Years of Paid Service times 2.94% of FAP)**

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

“Final Average Pay” means the monthly average of an employee’s pays during the period of 36 consecutive months when they were highest, contained within his last 120 months of paid service.

Amounts are shown to nearest dollar, for simplicity; actual amounts are to nearest cent.

With 28 or more years of service the employee is eligible for normal retirement at any age. 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.

## Jonesboro Paid Fire

The active members covered at December 31, 2009 were reported to total 110, with an annual payroll totaling \$4,969,728.

### Active Members in the Valuation Comparative Schedule

Valuation Date Dec. 31	Number	Annual Payroll	Average		
			Annual Pay	Age (years)	Service (years)
1993	48	\$1,044,922	\$21,769	30.0	4.2
1994	49	\$1,150,476	\$23,479	30.9	5.1
1995	50	\$1,228,425	\$24,569	31.5	5.9
1996	52	\$1,316,277	\$25,313	32.1	6.6
1997	60	\$1,524,805	\$25,413	32.3	6.7
1998	63	\$1,648,930	\$26,173	33.0	7.4
1999	73	\$1,907,994	\$26,137	32.9	7.3
2000	75	\$2,176,652	\$29,022	33.7	8.1
2001	80	\$2,432,941	\$30,412	34.0	8.1
2002	82	\$2,674,063	\$32,611	35.0	9.2
2003	84	\$2,841,598	\$33,829	35.7	9.9
2004	84	\$3,010,144	\$35,835	36.2	10.6
2005	89	\$3,308,630	\$37,176	36.7	11.0
2006	93	\$3,560,813	\$38,288	36.9	11.4
2007	110	\$4,230,616	\$38,460	36.1	10.5
2008	104	\$4,299,537	\$41,342	36.8	11.9
2009	110	\$4,969,728	\$45,179	37.6	13.1

## Jonesboro Paid Fire

### MEANING OF ACTUARIAL ACCRUED LIABILITIES

Almost every pension plan (public or private) has "actuarial accrued liabilities," so whatever they are, they aren't rare. Since the term is not part of everyday conversation, it needs some definition.

"Accrued liabilities" are the present value \$ of plan promises to pay benefits in the future allocated to service already rendered - a liability has been established ("accrued") because the service has been rendered, but the resulting monthly cash benefit may not be payable until years in the future. Accrued liabilities \$ are the result of complex mathematical calculations, which are made by the plan's actuary (which is the name given to the specialist who makes such calculations).

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The assets of your group were reported as of December 31, 2009 to be:

Member Deposit Account	\$	3,107,238
Employer Accumulation Account		<u>11,050,447</u>
Total Reported Assets	\$	14,157,685

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One of the results of the annual actuarial valuation is actuarial accrued liabilities. The computed and unfunded actuarial accrued liabilities are listed below:

### ACTUARIAL ACCRUED LIABILITIES: COMPUTED AND UNFUNDED

Computed Accrued Liabilities	\$	20,452,446
Reported Assets		<u>14,157,685</u>
Unfunded Accrued Liabilities	\$	6,294,761

Unfunded accrued liabilities were amortized over a period of 30 years.

**Jonesboro Paid Fire**  
**Not Covered By Social Security**  
**EMPLOYER CONTRIBUTIONS TO PROVIDE LOPFI BENEFITS**  
**Employer Portion is State and Local Combined**

**Computed December 31, 2009**

Contributions	% of Active Payroll
Normal cost of benefits:	
Age and service	19.50%
Casualty	1.53%
Refunds	<u>0.36%</u>
Total	21.39%
Unfunded accrued liabilities	<u>4.60%</u>
Total Contribution Requirement	25.99%
Member portion	8.50%
Employer portion	17.49%

**Determining Employer Dollar Contributions**

For each month, the percent-of-payroll contribution rate is converted to dollars -- and then promptly contributed to your account with LOPFI.

Based upon the annual payroll submitted for this valuation, \$4,969,728, the annual employer contribution dollars would be \$869,205.

However, in budgeting LOPFI dollars for a fiscal period be sure you use the payroll dollars you are budgeting for that same fiscal period (which will probably be different than the payroll dollars reported here).



**Jonesboro Paid Fire  
Accrued Liabilities and Computed Contributions  
Comparative Schedule**

Valuation Date Dec. 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liabilities		Computed Contribution Rate
				Dollar Amount	Percent of Annual Payroll	
1993	800,764	1,056,336	132%	(255,572)	(24%)	11.27%
1994	1,059,168	1,277,021	121%	(217,853)	(19%)	11.83%
1995	1,296,593	1,645,959	127%	(349,366)	(28%)	11.45%
1996	1,595,994	2,072,723	130%	(476,729)	(36%)	10.52%
1997	1,928,108	2,651,744	138%	(723,636)	(47%)	10.03%
1998	2,490,921	3,284,737	132%	(793,816)	(48%)	11.46%
1999	3,275,765	4,190,683	128%	(914,918)	(48%)	11.35%
2000	4,114,249	5,305,669	129%	(1,191,420)	(55%)	11.40%
2001	3,734,680	6,230,658	167%	(2,495,978)	(103%)	6.00%
2002	5,497,790	6,973,894	127%	(1,476,104)	(55%)	9.56%
2003	7,012,168	7,881,085	112%	(868,917)	(31%)	10.56%
2004	8,982,359	7,947,739	88%	1,034,620	34%	15.08%
2005	9,927,654	9,541,699	96%	385,955	12%	15.54%
2006	12,406,992	12,104,944	98%	302,048	8%	15.47%
2007	15,665,735	13,845,938	88%	1,819,797	43%	16.48%
2008	18,641,060	15,682,028	84%	2,959,032	69%	16.49%
2009	20,452,446	14,157,685	69%	6,294,761	127%	17.49%

## Summary of Historical Plan Amendments

Beginning with the December 31, 1993 actuarial valuation, valuation assets are equal to reported book value, adjusted to partially recognize the difference between book value and market value.

The December 31, 1996 valuation includes legislated benefit increases. These increases included retirement at any age with 30 or more years of service, vesting after 5 years of service, and higher post-retirement cost of living adjustments.

Two retirement board policy changes are reflected in the December 31, 1996 valuation, the use of a 30 year period for amortization of unfunded actuarial accrued liabilities and the elimination of a direct charge for expenses in the computed employer contribution rate.

The December 31, 1998 valuation includes both new actuarial assumptions and legislated benefit increases. These increases included retirement at any age with 28 or more years of service and an increase in the paid service multiplier to 2.1% of final average pay (1.1% for paid service members also covered by social security).

The December 31, 2000 valuation includes legislated benefit increases. Specifically, the increases were the following: extending the payment of the temporary annuity to full social security retirement age, raising the minimum duty disability benefit to 65% of final average pay and an increasing the benefit multiplier to 2.2% of final average pay (1.2% for paid service members also covered by social security).

The December 31, 2001 valuation includes new actuarial assumptions.

The December 31, 2002 valuation includes legislated benefit increases. The major increases were a move from simple to compound escalation of the post-retirement benefit increase and an increase in the benefit multiplier to 2.5% of final average pay (1.5% for paid service members also covered by social security).

The December 31, 2003 valuation includes new actuarial assumptions adopted by the Board of Trustees.

The December 31, 2004 valuation includes legislated benefit increases. The major increases were an increase in the benefit multiplier to 2.7% of final average pay (1.7% for paid service members also covered by social security) and DROP eligibility at age 55 with 20 years of service.

The December 31, 2007 valuation includes legislated benefit increases. The major increase was an increase in the maximum benefit to 85% of final average pay.

The December 31, 2008 valuation includes both new actuarial assumptions and legislated benefit increases. These increases included early retirement at any age with 25 or more years of paid service, an increase in the paid service multiplier to 2.94% of final average pay (1.94% for paid service members also covered by social security), and an increase in the maximum benefit to 100% of final average pay.

**Summary of  
FINANCIAL 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.*

**ECONOMIC ASSUMPTIONS**

*The investment return rate used in making the valuation was 8.0% 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 the portion of investment return which is more than the wage inflation rate. With a 4.0% recognition of wage inflation, the 8.0% investment return rate translates to an assumed real rate of return of 4.0%.*

*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 4.0% recognizes wage inflation.*

*Total active member payroll is assumed to increase 4.0% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation.*

*The number of active members is assumed to continue at the present number.*

**NON-ECONOMIC ASSUMPTIONS**

*The mortality table used to measure retired life mortality was the RP-2000 Combined Projected to 2007 Table, set forward two years for men. Related values are shown in Schedule A-1. Disability post-retirement mortality was assumed to be the same as standard post-retirement mortality set forward an additional 10 years. For death-in-service mortality, fifty percent of the post-retirement mortality tables were used. Fifty percent of deaths-in-service were assumed to be duty related.*

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

*The probabilities of withdrawal from service and death-in-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:*

*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; 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) a constant 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) level dollar amounts for volunteer service plans.

## **OTHER TECHNICAL ASSUMPTIONS**

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

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

*Members who are eligible to participate in the DROP* are assumed to enter the DROP with high probability as members would reach the maximum benefit (as a percent of final average pay) shortly after first eligibility to enter the DROP.

*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.

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The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

**Schedule A-1**

**Single Life Retirement Values**

Based on the RP-2000 Combined Projected to 2007 Table and 8.0% Interest

Sample Ages	Value at Retirement: \$1.00 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
45	\$140.07	\$143.93	34.35	38.75
50	134.09	139.28	29.63	33.96
55	126.07	132.94	25.03	29.25
60	115.95	124.73	20.64	24.71
65	103.99	114.73	16.60	20.44
70	90.27	103.12	12.94	16.52
75	74.95	89.98	9.69	13.00
80	59.25	75.48	6.97	9.87

Sample Attained Ages	Benefit Increasing 3% Yearly	Portion of Age 55 Lives Still Alive Men	Sample Attained Ages
55	\$100	100%	55
60	116	97	60
65	134	91	65
70	156	83	70
75	181	69	75
80	209	50	80

**Schedule A-2**

**Probabilities of Disability Retirement**

Sample Ages	% of Volunteer Members Becoming Disabled Within Next Year
20	0.15%
25	0.15
30	0.19
35	0.26
40	0.40
45	0.62
50	1.04
55	1.82
60	2.72

Schedule A-3

**Probabilities of Retirement for Paid Service Members Eligible to Retire**

Retirement Ages	LOBEI Fire			Percent of Eligible Active Members Retiring Within Next Year	Retirement Ages	LOBEI Local Fire
	Percent of Eligible Active Members Retiring Within Next Year	Service	Normal			Percent of Eligible Active Members Retiring Within Next Year
45-47	2%				45-47	40%
48	2				48	40
49	2				49	40
50	2				50	40
51	2				51	35
52	2				52	20
53	2				53	15
54	2				54	15
55		25%	28	25%	55	15
56		25	29	25	56	15
57		25	30	25	57	15
58		20	31	25	58	15
59		20	32	35	59	25
60		60	33	40	60	100
61		15	34	100	61	100
62		30			62	100
63		15			63	100
64		15			64	100
65		100			65	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.

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

Schedule A-4

**Rates of Separation (excluding deaths and disability)**

**From Active Employment Before Retirement**

Sample Ages	Years of Service	% of Active Paid Service Members Separating Within Next Year	
		Police	Fire
ALL	0	20.00%	10.00%
	1	18.00	9.00
	2	15.00	8.00
	3	13.00	7.00
	4	11.00	6.00
25	5 & Over	9.63	4.40
30		8.10	3.80
35		6.21	3.10
40		4.95	1.80
45		3.96	1.00
50		3.15	0.50
55		0.90	0.00
60		0.00	0.00

Schedule A-5

**Pay Increase Assumptions For an Individual Member**

Sample Ages	Present Pay Resulting in Pay of \$1,000 at Age 60	Pay Increase Assumptions For an Individual Member		
		Merit and Seniority	Base (Economic)	Increase Next Year
20	\$ 93	6.0%	4.0%	10.0%
25	149	5.1	4.0	9.1
30	224	3.2	4.0	7.2
35	307	1.9	4.0	5.9
40	402	1.2	4.0	5.2
45	514	0.9	4.0	4.9
50	649	0.6	4.0	4.6
55	809	0.4	4.0	4.4
60	1,000	0.3	4.0	4.3

Service related salary increases are assumed to occur during the first five years of employment. The first increase is 3.0% in addition to the age related pay increases shown above. In the following years the increases are 2.5%, 2.0%, 1.5% and 1.0%.



**Jonesboro Paid Fire**  
**Certain Disclosures Required by Statements No. 25 and No. 27 of the**  
**Governmental Accounting Standards Board**  
**January 1, 2010**

**Required Supplementary Information:**

For 2009, the political subdivision's annual pension cost of \$852,609 was equal to the required and actual contributions. The required contribution was determined as part of the December 31, 2007 annual actuarial valuation using the entry age actuarial cost method. The actuarial assumptions effective for the 2009 valuation included (a) a rate of return on present and future assets of 8.0% per year, compounded annually, (b) projected salary increase of 4.0% per year, compounded annually, attributable to wage inflation, (c) additional projected salary increases ranging from 0.0% to 6.0% per year, attributable to seniority/merit, (d) pre- and post-retirement mortality based on the RP-2000 Combined Projected to 2007 Table, set forward two years for men, and (e) annual compounded post-retirement increases of 3.0% per year. The actuarial value of assets was determined using techniques that smooth the short-term volatility in the market value of investments over a five-year period. The unfunded actuarial accrued liability (and assets in excess of actuarial accrued liability) is being amortized as a level percentage of projected payroll on an open basis. The amortization period as of December 31, 2007 was 30 years.

**Schedule of Funding Progress:**

Actuarial Valuation Date Dec. 31	(a) Entry Age Actuarial Accrued Liability	(b) Actuarial Value of Assets	(a-b) Unfunded Accrued Liability (UAL)	(b/a) Funded Ratio	(c) Annual Covered Payroll	[(a-b)/(c)] UAL as a Percentage of Covered Payroll
1995	1,296,593	1,645,959	(349,366)	127%	1,228,425	(28%)
1996	1,595,994	2,072,723	(476,729)	130%	1,316,277	(36%)
1997	1,928,108	2,651,744	(723,636)	138%	1,524,805	(47%)
1998	2,490,921	3,284,737	(793,816)	132%	1,648,930	(48%)
1999	3,275,765	4,190,683	(914,918)	128%	1,907,994	(48%)
2000	4,114,249	5,305,669	(1,191,420)	129%	2,176,652	(55%)
2001	3,734,680	6,230,658	(2,495,978)	167%	2,432,941	(103%)
2002	5,497,790	6,973,894	(1,476,104)	127%	2,674,063	(55%)
2003	7,012,168	7,881,085	(868,917)	112%	2,841,598	(31%)
2004	8,982,359	7,947,739	1,034,620	88%	3,010,144	34%
2005	9,927,654	9,541,699	385,955	96%	3,308,630	12%
2006	12,406,992	12,104,944	302,048	98%	3,560,813	8%
2007	15,665,735	13,845,938	1,819,797	88%	4,230,616	43%
2008	18,641,060	15,682,028	2,959,032	84%	4,299,537	69%
2009	20,452,446	14,157,655	6,294,761	69%	4,969,728	127%

Note: The above assets and actuarial accrued liabilities do not include the assets and actuarial accrued liabilities associated with the Retirement Reserve Account. For a complete description of the actuarial assumptions used in the annual valuations, please contact the LOPI office in Little Rock.