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Arkansas Local Police and Fire Retirement System

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**LOPFI**



**COMPREHENSIVE  
ANNUAL FINANCIAL  
REPORT**

**Fiscal Years Ended  
December 31, 2017 and  
December 31, 2016**



# LOPFI

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## Thirty-Fifth Comprehensive Annual Financial Report Fiscal Years Ended December 31, 2017 and December 31, 2016

620 West Third Street, Suite 200  
Little Rock, AR 72201  
(501) 682-1745  
*www.lopfi-prb.com*

Arkansas Local Police and Fire Retirement System  
David B. Clark, Executive Director  
Denise Collins, Chief Financial Officer

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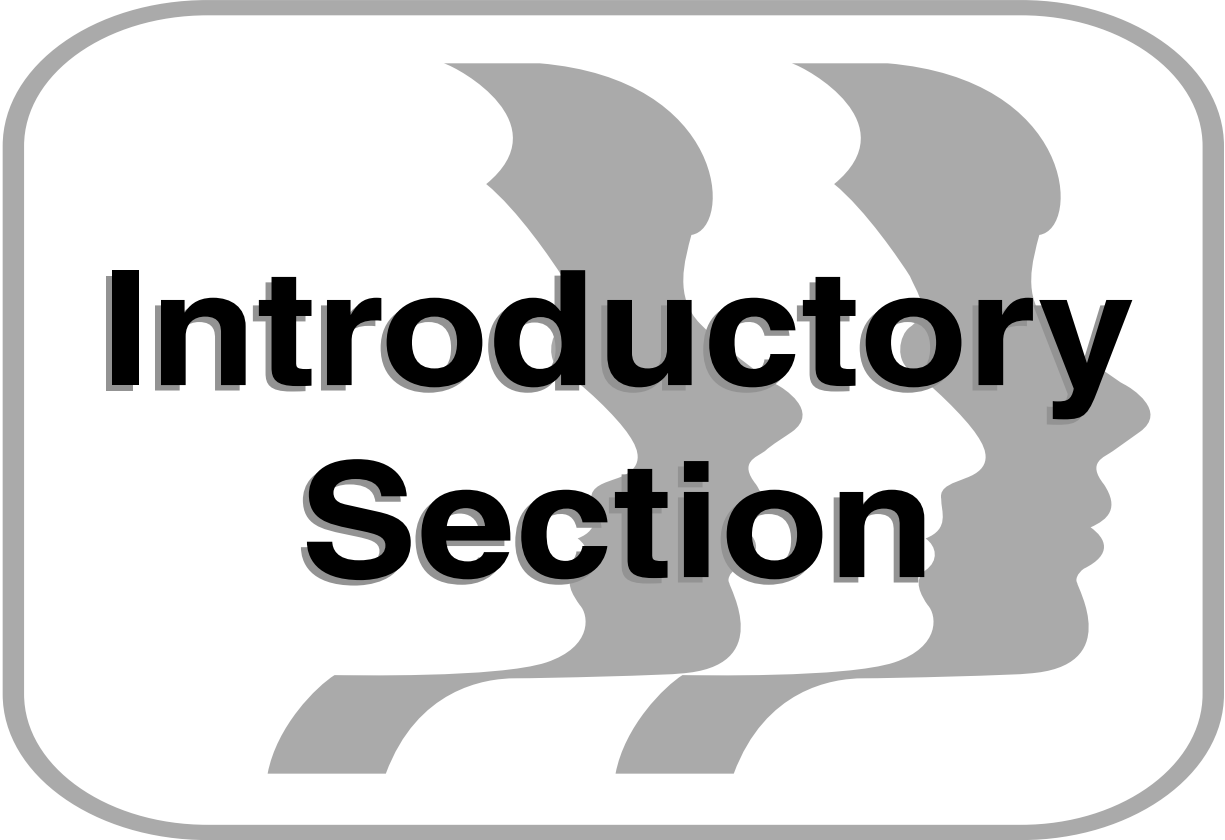

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# **Introductory Section**

# BOARD OF TRUSTEES



**MIKE GASKILL**  
Chairman, Employer Trustee  
*Paragould*  
Term Expires Jan. 1, 2019



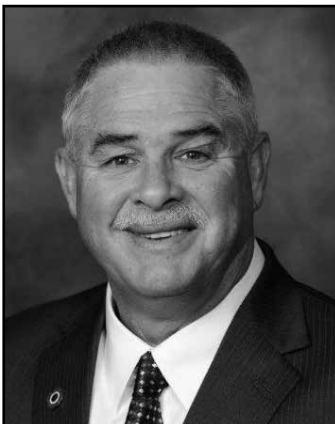
**CATHERINE COOK**  
Employer Trustee  
*Hope*  
Term Expires Jan. 1, 2018



**J. SCOTT BAXTER**  
Police Employee Trustee  
*Jonesboro*  
Term Expires Jan. 1, 2018



**DAMON REED**  
Fire Employee Trustee  
*Conway*  
Term Expires Jan. 1, 2020



**JOHN NEAL**  
Retired Fire Employee Trustee  
*Harrison*  
Term Expires Jan. 1, 2020



**JACK "TIM" HILL**  
Retired Police Employee Trustee  
*Springdale*  
Term Expires Jan. 1, 2020



**BEV LAMBERT**  
Public Trustee  
*Little Rock*  
Term Expires Jan. 1, 2019

# Certificate of Achievement



Government Finance Officers Association

## Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Arkansas Local Police and Fire  
Retirement System**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**December 31, 2016**

*Christopher P. Morill*

Executive Director/CEO

# LOPFI

## ARKANSAS LOCAL POLICE & FIRE RETIREMENT SYSTEM

### Letter of Transmittal

June 7, 2018

Board of Trustees  
Arkansas Local Police and Fire Retirement System  
620 W. 3<sup>rd</sup>, Suite 200  
Little Rock, AR 72201-2223

620 W. 3rd, Suite 200  
Little Rock, Arkansas 72201-2223  
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email: [info@lopfi-prb.com](mailto:info@lopfi-prb.com)  
website: [www.lopfi-prb.com](http://www.lopfi-prb.com)

Dear Trustees:

We are pleased to present you the Comprehensive Annual Financial Report (CAFR) of the Arkansas Local Police and Fire Retirement System (LOPFI) for the year ended December 31, 2017. This CAFR celebrates LOPFI's 35<sup>th</sup> year of providing retirement benefits for the covered police officers and firefighters.

LOPFI was created by the 1981 Arkansas General Assembly for the purpose of establishing a statewide defined benefit retirement system for police officers and firefighters of political subdivisions in the State of Arkansas. LOPFI's benefit structure is governed by State law and Board policy. A seven member Board of Trustees (the Board) appoints an Executive Director to administer the system consistent with law and Board policy.

### **Accounting, Financial Reporting and Internal Controls**

The accounting policies of LOPFI have been established to conform to generally accepted accounting principles (GAAP) in the United States. LOPFI uses an accrual basis of accounting. This method recognizes member and employer contributions as additions in the period that member services were performed and deductions are recognized when they are incurred.

Providing an accurate presentation of the retirement system's financial condition is a key responsibility of management. The financial statements have been prepared in accordance with GAAP and are organized in a manner consistent with factors established by the Governmental Accounting Standards Board (GASB), including, but not limited to, GASB Statement No. 67, *Financial Reporting for Pension Plans* and GASB Statement No. 34, *Basic Financial Statements---and Management's Discussion and Analysis (MD&A)*.



## Letter of Transmittal (Continued)

This Letter of Transmittal is intended to complement the MD&A. It should not be viewed as a replacement to the MD&A. The MD&A provides information regarding the basic financial statements and is located within the report from the system's independent auditors, which can be found in the Financial Section of the CAFR. The audit is conducted annually to ensure proper internal controls are in place so that the financial statements are fairly presented. The auditors have full access to all records and staff, which ensures a thorough examination occurs with each audit. LOPFI received an unmodified opinion from its independent auditor regarding its financial statements for the year ended December 31, 2017.

The system uses internal controls to provide confidence that the system's assets are safe from misuse, theft and/or loss, and that appropriate accounting data is collected. Internal controls are structured to provide a reasonable, not absolute, assertion that the safeguarding of system assets is present and that the financial records used in the preparation of the financial statements and accounting of the assets are valid. The concept behind internal controls recognizes that the cost of a control should not exceed its expected benefit. LOPFI's internal controls are examined regularly in an effort to detect and correct potential errors before they occur. Management believes these internal controls demonstrate that the financial statements, supporting schedules, and statistical tables are reported in an accurate, clear and concise manner.

### **Funding**

The principal purpose of LOPFI is to meet each and every benefit promise through investment earnings and contributions that remain approximately level as a percent of member payroll over decades of time. The Schedule of Funding Progress located in the Actuarial Section of this report shows the system continues to meet this objective. As of December 31, 2017, the funded ratio for the entire portfolio remained at 71% (this includes liabilities for the 204 Local Plans administered by LOPFI). Viewing the LOPFI-only portion of the portfolio i.e. excluding the Local Plans administered by LOPFI, the funded percentage held at 76%, which was the same percentage as the preceding year. In terms of the amortization schedules, the paid service amortization moved from 16.8 years to 17.0 years. Volunteer service, which previously was at 18.5 years, dropped to 16.0 years. Both amortization schedules use a closed period and accommodate the Board's mission to move the system back to a fully funded position. Further details regarding the funded condition of LOPFI is located in the Actuarial Section of this report.

### **Investment Process and Performance**

For the 2017-year, the system realized a 14.48% investment return. This was a net return i.e. after investment fees. This result is even more impressive considering the policy benchmark for the year was 13.94%. The 2017 return also lifted LOPFI's total market value above \$2 billion. At December 31, 2017, the total market value was

Letter of Transmittal  
(Continued)

\$2,037,993,984. Since LOPFI began operations in 1983 it has, on average, exceeded its assumed rate of return, which is currently 7.5%. The long term cumulative average for the investment return was 9.19% at the end of 2017. These results are important as the members can have confidence that assets will always be available to pay the promised lifetime benefits for each covered police officer and firefighter. When a career service member moves to retired status, they will enjoy a respectable monthly retirement benefit through their retired years.

LOPFI's investment program follows the Board's investment rule—Board Rule 20. This rule lays out the responsibilities of the Board and its advisors, and the objectives for the system's investments. As noted earlier, the current assumed rate of return is 7.5%, which is a recent change. After careful deliberation the Board chose to lower the assumed rate from the previous 7.75% rate to 7.5% at their December 2017 meeting. This rate will continue to be evaluated and if further reductions are necessary, the Board stands ready to take that action.

The Board uses a broad diversification of the portfolio through an array of investment styles. Assets are allocated among more than 20 investment management firms who are charged with investing those assets within a carefully defined framework. The framework includes investment style, expected return, level of risk, and other metrics. The Board has an ongoing monitoring process of the performance of each manager through the use of an investment consultant and investment monitor. Both firms provide an independent analysis of each investment manager. The Board reviews the associated reports at least quarterly to ensure compliance with the stated objectives and investment rule. Ultimately the Board retains the sole authority for how the investment program is administered. The Investment Section of this CAFR provides greater details regarding the system's investments.

### **Certificate of Achievement for Excellence in Financial Reporting**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a *Certificate of Achievement for Excellence in Financial Reporting* to LOPFI for its comprehensive annual financial report for the fiscal year ended December 31, 2016. This was the fifteenth consecutive year that LOPFI has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Letter of Transmittal  
(Concluded)

**Acknowledgments**

This report was developed through the collective efforts of system staff and advisors. Each person who contributed to this report is truly appreciated. LOPFI makes its CAFR easily accessible via the system's website as this allows interested parties such as the retirement system members, public, legislature, and all participating employer groups unencumbered access to the report. The CAFR's format is structured to be understandable and is intended to be a meaningful resource to those who have an interest in the retirement system.

LOPFI welcomes all active and retired participants and participating employer groups to share your thoughts with us on how we may improve our service to you. Please feel free to visit with any member of staff to provide your feedback.

*David B. Clark*  
Executive Director

*Denise Collins*  
Chief Financial Officer

# Administrative Organization

## STAFF

David B. Clark  
*Executive Director*

Denise Collins  
*Chief Financial Officer*

## ACTUARY

*Gabriel, Roeder, Smith and Company  
David Hoffman and Mita Drazilov  
Southfield, Michigan*

## DATA PROCESSING

*Tegrit Technologies  
Livonia, Michigan*

## INVESTMENT MONITOR

*AndCo Consulting  
John McCann  
Orlando, Florida*

## AUDITOR

*BKD, LLP CPAs & Advisors  
Andy Richards, CPA  
Little Rock, Arkansas*

## INVESTMENT CONSULTANT

*Stephens, Inc.  
Larry Middleton  
Little Rock, Arkansas*

## LEGAL COUNSEL

*Eichenbaum Liles, P.A.  
Richard L. Ramsay  
Little Rock, Arkansas*

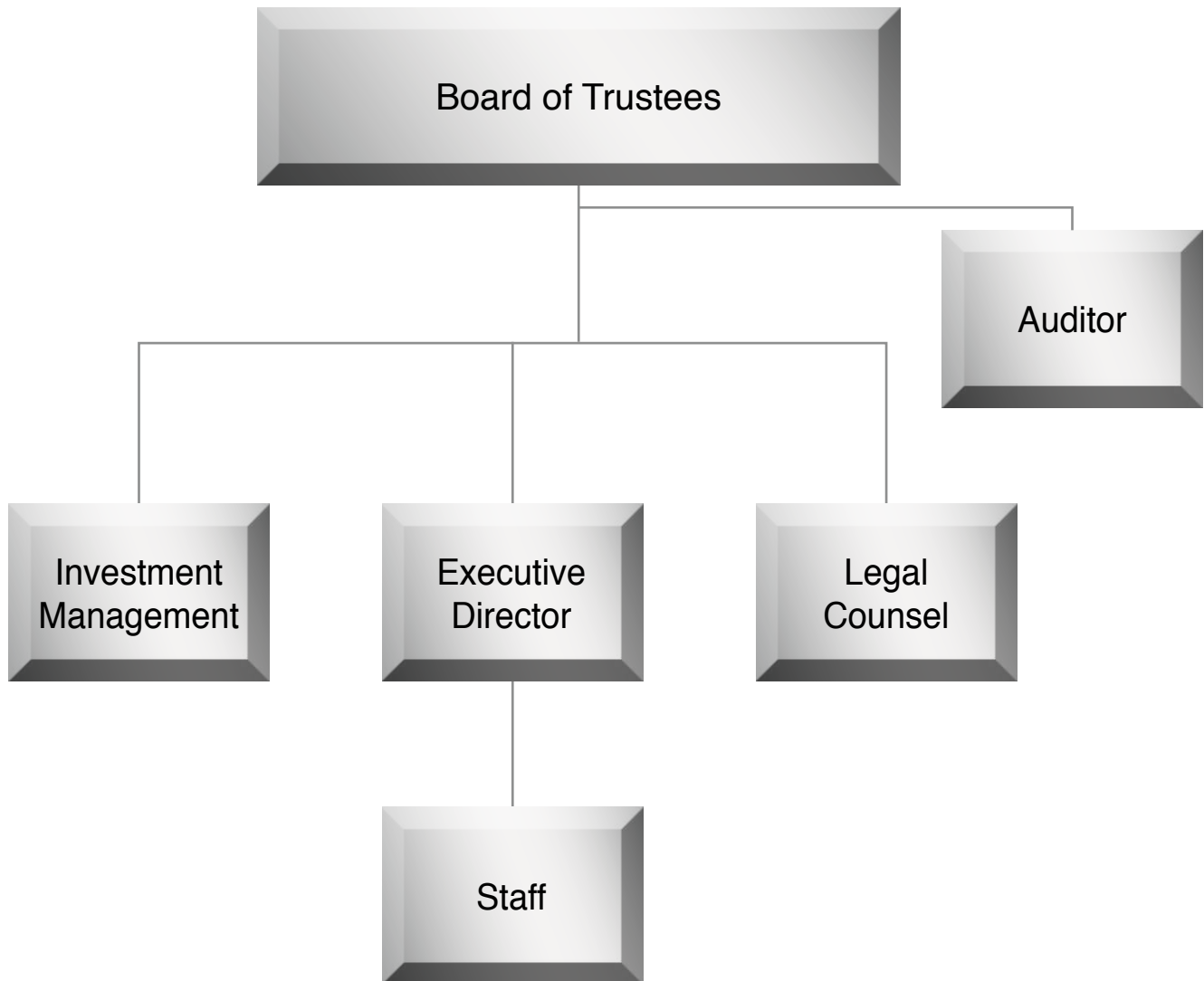
## INVESTMENT MANAGEMENT

- *Aberdeen Asset Management  
Philadelphia, Pennsylvania*
- *Alternative Investment Management (AIM)  
New York, New York*
- *Barrow, Hanley, Mewhinney & Strauss  
Dallas, Texas*
- *Candlewood Credit Value Fund  
New York, New York*
- *Chickasaw Capital Management  
Memphis, Tennessee*
- *Citigroup Private Equity  
New York, New York*
- *ClearBridge  
Wilmington, Delaware*
- *Congress Asset Management  
Boston, Massachusetts*
- *Dodge & Cox  
Braintree, Massachusetts*
- *Fisher Investments  
(International Bond & Emerging Markets)  
Woodside, California*
- *Garcia, Hamilton & Associates  
Houston, Texas*
- *Goldentree Select Offshore Fund, LTD  
New York, New York*
- *Goldman Sachs  
New York, New York*
- *JP Morgan Investment Management, Inc.  
(Real Estate & Infrastructure)  
New York, New York*
- *KKR Mezzanine Partners  
(Energy & Direct Lending)  
San Francisco, California*
- *Lazard Asset Management  
New York, New York*
- *Macquarie Infrastructure Partners, Inc.  
New York, New York*
- *Neuberger Berman  
(Private Equity & Private Debt)  
Dallas, Texas*
- *New South Capital Management  
Memphis, Tennessee*
- *Owl Rock Capital Corporation  
New York, New York*
- *Pacific Investment Management Company  
(PIMCO) (International Bond &  
Distressed Debt)  
Newport Beach, California*
- *State Street Global Advisors  
Boston, Massachusetts*
- *Wellington Management Company  
Boston, Massachusetts*
- *Western Asset Management  
Company (WAMCO)  
(Domestic Bonds & High Yield)  
Pasadena, California*

*Detailed information regarding investment management can be found in the Investment Section beginning on pages 64-66.*

# Organization Chart

## Members of the Retirement System



# Summary of LOPFI Plan Provisions

## PURPOSE

The Arkansas Local Police and Fire Retirement System (LOPFI) is a statewide retirement plan for police officers and firefighters of political subdivisions of the State of Arkansas. It is a qualified trust established under the authority of Act 364 of 1981, and bears a fiduciary obligation to the participants of the plan.

## ADMINISTRATION

The general administration and the responsibility for the proper operation of the system is vested in a seven (7) member Board of Trustees. All Trustees are appointed by the Governor. The normal term of office for a Trustee is four (4) years. Four (4) of the appointed Trustees are employee representatives: an active firefighter and an active police officer, and a retired firefighter and a retired police officer are selected from lists submitted by the Joint Committee on Public Retirement and Social Security Programs. Two (2) members are employer trustees, who possess management experience and may be elected or appointed city officials. The remaining member is the public trustee, who represents the citizenry of the State of Arkansas. The public trustee is not a member of any governing body of a political subdivision of the State and is selected from a list submitted by the Legislative Joint Committee on Public Retirement and Social Security Programs. A list of the Board of Trustees and their terms of office is included in this report.

The Board of Trustees has vested the day to day management of LOPFI with an Executive Director. The Executive Director acts as an advisor to the Board on matters pertaining to the System and, with the approval of the Board, employs the remaining staff and seeks professional consultants needed to operate the System.

## PARTICIPATION

LOPFI became effective July 1, 1981 and has different provisions for participation.

(1) Political subdivisions which had a local pension

and relief fund (Local Plan) for its firefighters and police officers as of July 1, 1981:

(a) All employees hired after January 1, 1983 (operative date), who would have participated under the Local Plans, will become LOPFI members.

(b) By voluntary mutual agreement of a political subdivision's governing body and the LOPFI Board, arrangement can be made for the Local Plan to be administered by LOPFI. This is not mandatory and does not mean there would be a change in the benefit provisions applicable to Local Plan members. It would be a change only in administrative structure.

(2) Political subdivisions which did not have a Local Plan for its firefighters and police officers as of July 1, 1981:

(a) Effective July 1, 1981, no new Local Plans may be established.

(b) The governing body of a political subdivision may elect to cover its firefighters and police officers under LOPFI. Memberships become effective the first day of the month after the LOPFI Board is notified that the local governing body has elected to provide such coverage.

## CREDITED SERVICE

Credited service is the combination of a Member's total accrued years and months of paid service and/or volunteer service with one or more LOPFI-covered employer. Service may be granted simultaneously for both paid and volunteer service with the same location, but at separate departments (Ex: paid police officer who also serves as a volunteer firefighter or a paid firefighter who also serves as a volunteer police officer). Members are limited to earning paid or volunteer service at one LOPFI-covered department at a time.

Because LOPFI is a statewide retirement system with many participating political subdivisions, credited service can be a combination of service with more than one (1) employer.

### **NORMAL RETIREMENT**

A member may retire after completing age and service requirements. The minimum service retirement age is 55, if the member has at least 20 years of service. For those desiring retirement with less than twenty years of service, but who have at least five (5) years, unless hired on or after July 1, 2013, which means the member must have ten (10) years of actual LOPFI credited service, the minimum age is 60 or a member may retire at any age with 28 years of credited service.

### **EARLY RETIREMENT**

An active member may retire with an early retirement benefit after completing 25 years of paid service or at least age 50 and has at least 20 years of credited service. With early retirement the benefit is computed as a normal benefit, but is then reduced to account for the fact that benefit payments began at a younger age. The amount of the reduction is  $\frac{1}{2}$  of 1% per month for each month that the retirant is younger than 55.

### **DEFERRED RETIREMENT**

When the member is eligible for a deferred benefit, benefit payments may begin when normal retirement age is attained (age 55 with 20 years of credited service, age 60 with 5 years of credited service for members hired prior to July 1, 2013, age 60 with 10 years of actual LOPFI service credit for members hired on or after July 1, 2013, or any age with 28 years of credited service).

The deferred benefit is computed in the same manner as a normal benefit; however, when the effective date of the annuity is at least twelve (12) full months after termination the final average pay (FAP) is adjusted for changes in inflation. The amount of the adjustment is one-half of any percentage increase in the Consumer Price Index (CPI) for the period from three (3) months immediately preceding termination to three (3) months immediately preceding the effective date of retirement. In addition, if the member's paid service was covered by Social Security the 1% temporary annuity shall not be paid.

### **FINAL AVERAGE PAY**

Final Average Pay (FAP) is the average of a member's

monthly pay during the 36 consecutive months of paid service producing the highest income, which is contained within the last 120 months of paid service. In the majority of cases, this is the last 3 years of employment. The pays usable in the determination of FAP are limited by the following tests: Pays during any twelve (12) consecutive months shall be usable only to the extent that the pays do not exceed thirty-one percent (31%) of the total pays in the final average pay period; and that if the final average pay period is less than four (4) full years, the maximum usable 31% shall be increased proportionally. FAP is not applicable to volunteer service.

### **AGE AND SERVICE BENEFIT**

The normal retirement benefit is payable monthly to the member for life. The monthly benefit equals a specified amount multiplied by the member's number of years of credited service. The monthly amount depends on: 1) the amount and type of credited service the member has; 2) whether or not the member's paid service is covered by social security; and, 3) the member's FAP. The following formulas apply under the stated conditions:

(a) Paid service position not covered by social security  
 $2.94\% \times \text{FAP} \times \text{Years of Service}$

(b) Paid service position covered by social security  
 $2.94\% \times \text{FAP} \times \text{Years of Service}$  until first eligible for an unreduced social security benefit

THEN

$1.94\% \times \text{FAP} \times \text{Years of Service}$  when first eligible for unreduced social security benefit

(c) Volunteer

$\$6.54 \text{ per month} \times \text{Years of Service}$

(The \$6.54 benefit is indexed annually for inflation).

The maximum benefit for paid service is 100% of the member's FAP. For volunteer service the maximum benefit is attained at forty (40) years of credited volunteer service.

### **DUTY DISABILITY BENEFIT**

A member who becomes totally and permanently disabled from duty-related injury or disease is eligible for a disability benefit. The benefit shall either be equal to 65% of FAP or equal to the annuity paid to retirants

for each year of paid service resulting from employment as provided for in ACA 24-10-602, whichever is greater.

#### **NON-DUTY DISABILITY BENEFIT**

A paid member with five (5) years of credited service, unless hired on or after July 1, 2013, which means the member must have ten (10) years of actual LOPFI credited service who becomes totally and permanently disabled from causes other than duty-related receives a non-duty benefit computed in the same manner as an age and service benefit, but based upon actual service and FAP at time of disability.

#### **SURVIVOR BENEFIT**

Upon the death of a member from duty-related causes, regardless of length of service, the designated beneficiary benefit is computed as if the member had 25 years of credited service and elected Option B50. When a paid member dies from non-duty related causes, who has at least five (5) years or more of credited service, unless hired on or after July 1, 2013, which means the member must have ten (10) years of actual LOPFI credited service the designated beneficiary benefit is computed as if the member had retired on the death date and elected Option B50.

#### **POST RETIREMENT ADJUSTMENT**

Beginning the first July following twelve (12) months of retirement, there is an annual redetermination of the monthly benefit amount. The redetermined amount shall be the amount of the benefit as of the immediately preceding July 1 increased by three percent (3%).

#### **OPTIONAL FORMS OF PAYMENT**

When a LOPFI member makes application for retirement, benefits may be calculated in four (4) optional forms and the member selects the one that best fits his/her retirement needs. Once the member's first benefit payment becomes payable the option is irrevocable, except with a life changing event. The options are:

Option A60: Under Option A60 a retirant receives an annuity for life, with the added provision that if he/she dies before being paid a total of 60 monthly payments, the same amount will be continued to his/her designated eligible beneficiary until a total of 60 monthly payments have been made. Option A60 pays an amount equal to 100% of the life benefit.

Option A120: This option has the same general provisions as Option A60 but the guaranteed payment period is 120 months rather than 60 months. This option pays a benefit equal to 98% of the life benefit.

Option B50: Under Option B50 a retirant receives a reduced monthly lifetime benefit with the added provision that should he/she die before his/her designated eligible beneficiary, the beneficiary will receive a monthly benefit for life equal to 50% of the reduced amount received by the retirant.

Option B75: Option B75 has the same general provisions as Option B50, but the percent of the reduced life benefit to the designated beneficiary is 75% instead of 50%.

#### **DEFERRED RETIREMENT OPTION PLAN**

The Deferred Retirement Option Plan (DROP) allows any LOPFI-covered paid service member who has at least 28 years of paid service or who has at least 20 years of paid service and is at least age 55, to accumulate a portion of their retirement benefit in a separate account, without terminating employment. The member defers receipt of benefits as described below.

For purposes of a DROP benefit calculation, total credited service shall not include purchased service credit. However, military service credit earned under ACA 24-10-502 shall count towards the total credited service. In addition, Act 829 of 2015 allows up to 36 months of actual LOPFI volunteer service credit to be used toward DROP eligibility.

When a paid member elects to enter DROP, their future monthly retirement benefit is calculated as though the member was leaving employment at the time of entry into DROP and means no further paid or volunteer service credit accrual, for retirement benefit purposes, will occur. For members who have at least 28 years of service before electing to participate in DROP, 75% of the member's monthly benefit is placed into the member's DROP account. Members who have at least 20 years of service, but less than 28 years of service, and are at least age 55 before electing to participate in DROP, 72% of the member's monthly benefit is placed into the member's DROP account. The member's DROP account balance earns 6% annual interest and is awarded based on the average balance in the member's DROP account. During DROP the member contributions and employer contributions



shall continue and are credited to the retirement system.

The member may remain in DROP up to a maximum of seven (7) years. DROP participants will begin receiving a 3% compound cost of living adjustment (COLA) to their future monthly retirement benefit in July once they reach year six (6) in DROP. At the conclusion of DROP, the member shall terminate employment and begin receiving the full monthly retirement benefit calculated at the time they entered DROP including the benefit attributable to any LOPFI volunteer service credit accrual prior to enrollment in DROP, plus any applicable COLA. At the option of the member, the DROP account balance can be rolled into an investment vehicle, received either as a lump-sum payment equal to the payments into their DROP account, as a monthly annuity that is the actuarial equivalent of the lump-sum to be paid in the form of the benefit option elected at the time of enrollment in DROP, which is also effective with the first retirement benefit payment, or leave their DROP balance, or a portion of, on account with LOPFI. Any portion of the DROP balance left on account will accrue 2% interest. Members may also elect a combination of the four options.

If a DROP annuity is chosen and the member dies during the DROP annuity period and before the total of the monthly DROP annuity payments equals or exceeds the original DROP account balance prior to distribution, that difference shall be paid to the member's survivor(s), or if none, the member's estate. The survivor(s) may choose to either continue the DROP annuity payments or accept a lump-sum distribution. If the balance is paid to an estate it shall be paid in a lump-sum distribution.

If a member becomes disabled while participating in DROP, the member shall be treated as though they had concluded DROP.

#### **PARTIAL-ANNUITY and LUMP-SUM OPTION**

Any active vested member who is eligible for an unreduced retirement benefit and was not eligible or did not elect to participate in the DROP, may elect to participate in the partial-annuity and lump-sum (PALS) option.

A member who elects to participate in this PALS option shall be eligible to receive, at the time of retirement, a lump-sum distribution in an amount not exceeding one (1) month of benefit for each completed month of service

beyond eligibility for an unreduced retirement benefit. The lump-sum shall not exceed an amount equal to 60 months of retirement benefits.

If a member elects to participate in the PALS option, the member's retirement benefit shall be reduced by an amount that is the actuarial equivalent of the withdrawn amount.

#### **MEMBER CONTRIBUTIONS**

Member contribution rates are dependent upon the type of service rendered and whether or not that service is also covered by Social Security. Effective July 1, 2009, all member contributions remitted to the system are on a pre-tax basis. The different member contribution rates are:

- (1) Paid service not covered by Social Security: 8.5% of pay.
- (2) Paid service also covered by Social Security: 2.5% of pay.
- (3) Paid service under Benefit Program 2: 8.5% of pay.
- (4) Volunteer service: No contribution.

#### **EMPLOYER CONTRIBUTIONS**

LOPFI requires that each employer make the actuarially required contribution in order to finance the benefits that political subdivisions have promised their employees. The actuary adjusts the rates annually to reflect each employer's experience.

# Summary of Plan Provisions

## For Local Fire and Police Pension and Relief Funds Under LOPFI Administration

### HISTORY

Legislative action dating back to 1921 and 1937 provided cities and towns with the option to establish retirement and relief fund programs (Local Plans) for firefighters and police officers, respectively. However, such authority was cancelled with the effective date of LOPFI, July 1981. Therefore, all Local Plans were established prior to this date.

### ADMINISTRATION

By voluntary mutual agreement, the City's governing body may enter into a management agreement for the administration of a Local Plan with the LOPFI Board of Trustees. Under the arrangement coverage provided by LOPFI is administrative only and does not change the benefit structure of the Local Plan.

### PARTICIPANTS

Under the Local Plans, membership is extended to certified uniformed personnel of police and fire departments in cities and towns with established plans.

### CREDITED SERVICE

Credited service is the combination of an employee's years of covered employment in paid and/or volunteer service. For police members and paid fire members, only service credit that is accrued under one employer is counted. However, volunteer fire members may combine service of five-year increments or more from other employers for retirement.

### MEMBER CONTRIBUTIONS

Paid members contribute 6% of salary if they do not participate in social security. For members participating in social security, the required contribution is 4% of salary. Volunteer members contribute \$12 per year.

### NORMAL RETIREMENT

A member may retire with 20 years of service regardless of age.

### SERVICE BENEFIT

#### Paid Members

Annual benefits equal to 50% of final pay attached to rank for firefighters and 50% of the highest salary for police officers. The minimum benefit is \$4,200 per year. If more than 20 years of service credit is accrued, \$240 annually is granted for each additional year of service credit, up to \$1,200 for 25 years of service. For retirants who accrue more than 25 years of service prior to the enrollment in their Local Plan's deferred retirement option plan (DROP), if applicable, and are age 60, an additional benefit of 1.25% of final pay is payable for each year over 25 years of service to a maximum of 100% of final pay or salary.

#### Volunteer Members

The minimum annual benefit is \$1,200 per year. An additional benefit of \$120 annual for each additional year of service over 20 years is granted up to a maximum amount of \$1,800 annually for 25 years of service or more.

### DISABILITY RETIREMENT

Members with a total and permanent physical or mental disability resulting from a duty related injury are granted 65% of final pay attached to rank for firefighters and 65% of highest salary for police officers. Members found to be suffering with a non-duty disability are granted 50% of final pay or highest compensation.

Volunteer members receive a disability benefit that equals the same as a regular retirement benefit. The minimum benefit is \$100 per month.

### SURVIVOR BENEFITS

A widow receives the same amount the member was receiving or eligible for, excluding the 1.25% additional formula for service over 25 years. Surviving children may receive \$1,500 annually up to age 19 for fire, up to age 18 for police or until marriage if occurs before the age limit. The age limit may be extended to age 23 if attending college.

The spouse of a volunteer member receives the benefit the member received or would have received. Surviving children may receive \$300 annually up to age 19 or marriage, whichever occurs first.



# **Financial Section**

## Independent Auditor's Report

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

### Report on the Financial Statements

We have audited the accompanying financial statements of the Arkansas Local Police and Fire Retirement System (the System) as of and for the years ended December 31, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Arkansas Local Police and Fire Retirement System as of December 31, 2017 and 2016, and the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Other Matters***

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and pension information listed in the table of contents be presented to supplement the financial statements. Such information, although not part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audits of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### ***Other Information***

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The schedule of administrative expenses and the schedule of investment expenses as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedule of administrative expenses and the schedule of investment expenses are the responsibility of management and were derived from, and relate directly to, the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of administrative expenses and the schedule of investment expenses are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

*BKD, LLP*

Little Rock, Arkansas  
April 18, 2018

# Arkansas Local Police and Fire Retirement System

## Management's Discussion and Analysis

### December 31, 2017 and 2016

This discussion and analysis of the Arkansas Local Police and Fire Retirement System (hereafter referred to as LOPFI or the System) is for the years ended December 31, 2017 and 2016. This analysis provides a summary of the financial position of LOPFI, including highlights and comparisons. For more detailed information regarding LOPFI financial activities, the reader should also review the actual financial statements, including notes and supplementary schedules.

The basic financial statements consist of:

The *Statement of Fiduciary Net Position*, which reports the pension fund assets, liabilities and net position restricted for pensions at the end of the calendar year. The *Statement of Fiduciary Net Position* is prepared on the accrual basis and, for the most part, the Plan's net position restricted for pensions is reported on a fair value basis.

The *Statement of Changes in Fiduciary Net Position*, which reports the pension fund transactions that occurred during the calendar year where additions minus deductions equal net increase (decrease) in fiduciary net position. It is an operating statement that reports the net increase or decrease in net position restricted for pensions from the beginning of the year until the end of the year.

The *Notes to the Financial Statements* are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.

The *Required Supplementary Information* and *Other Supplementary Information* following the *Notes to the Financial Statements* provide added historical and detailed information considered useful in evaluating the condition of LOPFI.

The following pages contain summary comparative statements of LOPFI's pension trust fund for years 2017 and 2016.

# Arkansas Local Police and Fire Retirement System

## Management's Discussion and Analysis

### December 31, 2017 and 2016

#### Summary Statements of Net Position Restricted for Pensions

|   | 2017                    | 2016                    | 2015                    | 2017<br>Percentage<br>Change | 2016<br>Percentage<br>Change |
|---|-------------------------|-------------------------|-------------------------|------------------------------|------------------------------|
| Cash  | \$ 141,095,795          | \$ 139,403,804          | \$ 144,832,792          | 1.21%                        | -3.75%                       |
| Total receivables                           | 8,408,530               | 7,745,199               | 7,308,563               | 8.56%                        | 5.97%                        |
| Prepaid expenses                            | 8,423,084               | 7,100,260               | 7,089,358               | 18.63%                       | 0.15%                        |
| Total investments, at fair value            | 1,915,918,557           | 1,615,820,171           | 1,488,064,365           | 18.57%                       | 8.59%                        |
| Property and equipment, net                 | 2,356,706               | 2,395,153               | 730,084                 | -1.61%                       | 228.07%                      |
| Other assets                                | 88,180                  | 6,329                   | 159,462                 | 1293.27%                     | -96.03%                      |
| <b>Total assets</b>                         | <b>\$ 2,076,290,852</b> | <b>\$ 1,772,470,916</b> | <b>\$ 1,648,184,624</b> | <b>17.14%</b>                | <b>7.54%</b>                 |
| Accounts payable and accrued expenses       | \$ 1,024,111            | \$ 1,214,905            | \$ 1,042,925            | -15.70%                      | 16.49%                       |
| Refunds payable                             | 199,335                 | 64,751                  | 236,825                 | 207.85%                      | -72.66%                      |
| Due to Pension Review Board                 | 448,967                 | 352,259                 | 226,562                 | 27.45%                       | 55.48%                       |
| <b>Total liabilities</b>                    | <b>1,672,413</b>        | <b>1,631,915</b>        | <b>1,506,312</b>        | <b>2.48%</b>                 | <b>8.34%</b>                 |
| <b>Net position restricted for pensions</b> | <b>2,074,618,439</b>    | <b>1,770,839,001</b>    | <b>1,646,678,312</b>    | <b>17.15%</b>                | <b>7.54%</b>                 |
| <b>Total net position and liabilities</b>   | <b>\$ 2,076,290,852</b> | <b>\$ 1,772,470,916</b> | <b>\$ 1,648,184,624</b> | <b>17.14%</b>                | <b>7.54%</b>                 |

#### **December 31, 2017**

There was a growth in cash as a result of the increased market conditions. The total investments at fair value increase reflects the remarkable performance of the financial markets in 2017 coupled with the increased contributions and the receipt of over \$37.2 million in assets from the Local Plans consolidating with LOPFI. The slight gain in total receivables represents a combination of increased Member and Employer contributions as well as accrued interest and dividends. The net value of the property and equipment decreased slightly as a result of the normal process of depreciating fixed assets.

#### **December 31, 2016**

Cash decreased as a result of capital call commitments and increased allocations due to alternative asset managers previously added to the portfolio. Total investments increased, which reflects the improvements of the financial markets in 2016. The gain in total receivables is due to continued growth in active membership coupled with augmented wages reported by LOPFI-covered employer groups and the receipt of \$9.8 million from the newly consolidated local plan assets. The increase in fixed assets, net of accumulated depreciation, includes a reclassification of certain assets from investments to fixed assets.

# Arkansas Local Police and Fire Retirement System

## Management's Discussion and Analysis

### December 31, 2017 and 2016

#### Summary Statements of Changes in Net Position Restricted for Pensions

|   | 2017                  | 2016                  | 2015                 | 2017<br>Percentage<br>Change | 2016<br>Percentage<br>Change |
|---|-----------------------|-----------------------|----------------------|------------------------------|------------------------------|
| Total contributions   | \$ 161,833,371        | \$ 130,581,208        | \$ 123,004,633       | 23.93%                       | 6.16%                        |
| Net investment income   | 253,402,809           | 98,810,912            | 2,229,569            | 156.45%                      | 4331.84%                     |
| Total additions   | <u>415,236,180</u>    | <u>229,392,120</u>    | <u>125,234,202</u>   | <u>81.02%</u>                | <u>83.17%</u>                |
| Benefit payments, including refunds<br>and DROP distributions | 108,165,851           | 102,125,343           | 85,676,107           | 5.91%                        | 19.20%                       |
| Administrative expenses                                       | 3,290,891             | 3,106,088             | 2,971,482            | 5.95%                        | 4.53%                        |
| Total deductions  | <u>111,456,742</u>    | <u>105,231,431</u>    | <u>88,647,589</u>    | <u>5.92%</u>                 | <u>18.71%</u>                |
| Net increase in fiduciary net position                        | <u>\$ 303,779,438</u> | <u>\$ 124,160,689</u> | <u>\$ 36,586,613</u> | <u>144.67%</u>               | <u>239.36%</u>               |

#### **December 31, 2017**

There was a slight increase to the total contributions, due to the addition of paid member contributions and employers/departments. The net investment income increased as a result of the portfolios generated a return of 14.48%, which resulted in a significant increase in investment income over the previous years. An increase in benefits paid to participants is a combination of the growing number of retired LOPFI members as well as the addition of retirees from the consolidated Local Plans. Refunds of member contributions decreased slightly in 2017 as well as the Deferred Retirement Option Plan (DROP) distributions to both LOPFI and Local Plans administered by LOPFI. There was a slight increase in administrative expenses in 2017 due to the continuing work to enhance computer operations and processes.

#### **December 31, 2016**

Employer and member contributions continued to increase due to rising active paid membership and associated wages reported by LOPFI-covered employer groups. The net investment income increased as a result of portfolio generated a return of 6.25%. Both the domestic and international equity markets have continued to gain momentum as corporate earnings remain strong, unemployment rates remain low, and interest rates remain low for debt issuance. An increase in benefits paid to participants is a combination of the growing number of retired LOPFI members as well as the addition of retirees from the newly consolidated local plans. There was a slight increase in administrative expenses in 2016 as a result of investment-related costs, features added to enhance the workflow processes and an upgrade to the Microsoft Dynamics accounting software. The Deferred Retirement Option Plan (DROP) distributions increased as a natural result of more DROP participants, both LOPFI and local plans administered by LOPFI, retiring in the current year.



# Arkansas Local Police and Fire Retirement System

## Statements of Fiduciary Net Position

### December 31, 2017 and 2016

|  | 2017                                  |                                | Total                   |
|--|---------------------------------------|--------------------------------|-------------------------|
|  | Cost-Sharing<br>Multiple-<br>Employer | Agent<br>Multiple-<br>Employer |                         |
| <b>Assets</b>  |                                       |                                |                         |
| Cash   | \$ 126,458,067                        | \$ 14,637,728                  | \$ 141,095,795          |
| Receivables  |                                       |                                |                         |
| Contributions  | 7,514,680                             | 869,837                        | 8,384,517               |
| Other receivables  | 21,522                                | 2,491                          | 24,013                  |
| Total receivables  | <u>7,536,202</u>                      | <u>872,328</u>                 | <u>8,408,530</u>        |
| Prepaid expenses   | 7,549,246                             | 873,838                        | 8,423,084               |
| Investments, at fair value                                 |                                       |                                |                         |
| Equity securities – U.S. companies                         | 313,180,795                           | 36,251,192                     | 349,431,987             |
| Equity securities – international companies                | 44,321,758                            | 5,130,316                      | 49,452,074              |
| Mutual funds   | 1,085,010,188                         | 125,591,707                    | 1,210,601,895           |
| U.S. Treasury securities                                   | 73,671,289                            | 8,527,572                      | 82,198,861              |
| Corporate bonds  | 26,881,234                            | 3,111,547                      | 29,992,781              |
| Mortgage-backed securities                                 | 11,283,053                            | 1,306,032                      | 12,589,085              |
| Alternative investments                                    | 161,269,428                           | 18,667,200                     | 179,936,628             |
| Real estate investment trusts                              | <u>1,537,301</u>                      | <u>177,945</u>                 | <u>1,715,246</u>        |
| Total investments, at fair value                           | <u>1,717,155,046</u>                  | <u>198,763,511</u>             | <u>1,915,918,557</u>    |
| Property and equipment, net of<br>accumulated depreciation | 2,112,214                             | 244,492                        | 2,356,706               |
| Other assets   | <u>79,032</u>                         | <u>9,148</u>                   | <u>88,180</u>           |
| Total assets   | <u>1,860,889,807</u>                  | <u>215,401,045</u>             | <u>2,076,290,852</u>    |
| <b>Liabilities</b>   |                                       |                                |                         |
| Accounts payable and accrued expenses                      | 917,866                               | 106,245                        | 1,024,111               |
| Refunds payable  | 178,655                               | 20,680                         | 199,335                 |
| Due to Pension Review Board                                | <u>402,390</u>                        | <u>46,577</u>                  | <u>448,967</u>          |
| Total liabilities  | <u>1,498,911</u>                      | <u>173,502</u>                 | <u>1,672,413</u>        |
| <b>Net Position Restricted for Pensions</b>                | <u>\$ 1,859,390,896</u>               | <u>\$ 215,227,543</u>          | <u>\$ 2,074,618,439</u> |

See Notes to Financial Statements

**Arkansas Local Police and Fire Retirement System**  
**Statements of Fiduciary Net Position (Continued)**  
**December 31, 2017 and 2016**

|  | 2016                                  |                                |                         |
|--|---------------------------------------|--------------------------------|-------------------------|
|  | Cost-Sharing<br>Multiple-<br>Employer | Agent<br>Multiple-<br>Employer | Total                   |
| <b>Assets</b>  |                                       |                                |                         |
| Cash   | \$ 125,855,215                        | \$ 13,548,589                  | \$ 139,403,804          |
| Receivables  |                                       |                                |                         |
| Contributions  | 6,967,881                             | 750,109                        | 7,717,990               |
| Other receivables  | 24,565                                | 2,644                          | 27,209                  |
| Total receivables  | <u>6,992,446</u>                      | <u>752,753</u>                 | <u>7,745,199</u>        |
| Prepaid expenses   | 6,410,189                             | 690,071                        | 7,100,260               |
| Investments, at fair value                                 |                                       |                                |                         |
| Equity securities – U.S. companies                         | 239,486,289                           | 25,781,223                     | 265,267,512             |
| Equity securities – international companies                | 56,902,757                            | 6,125,706                      | 63,028,463              |
| Mutual funds   | 920,831,779                           | 99,129,556                     | 1,019,961,335           |
| U.S. Treasury securities                                   | 52,303,237                            | 5,630,558                      | 57,933,795              |
| Corporate bonds  | 21,242,313                            | 2,286,782                      | 23,529,095              |
| Mortgage-backed securities                                 | 15,144,946                            | 1,630,387                      | 16,775,333              |
| Collateralized mortgage obligations                        | 233,405                               | 25,127                         | 258,532                 |
| Alternative investments                                    | <u>152,634,653</u>                    | <u>16,431,453</u>              | <u>169,066,106</u>      |
| Total investments, at fair value                           | <u>1,458,779,379</u>                  | <u>157,040,792</u>             | <u>1,615,820,171</u>    |
| Property and equipment, net of<br>accumulated depreciation | 2,162,369                             | 232,784                        | 2,395,153               |
| Other assets   | <u>5,714</u>                          | <u>615</u>                     | <u>6,329</u>            |
| Total assets   | <u>1,600,205,312</u>                  | <u>172,265,604</u>             | <u>1,772,470,916</u>    |
| <b>Liabilities</b>   |                                       |                                |                         |
| Accounts payable and accrued expenses                      | 1,096,829                             | 118,076                        | 1,214,905               |
| Refunds payable  | 58,458                                | 6,293                          | 64,751                  |
| Due to Pension Review Board                                | <u>318,023</u>                        | <u>34,236</u>                  | <u>352,259</u>          |
| Total liabilities  | <u>1,473,310</u>                      | <u>158,605</u>                 | <u>1,631,915</u>        |
| <b>Net Position Restricted for Pensions</b>                | <u>\$ 1,598,732,002</u>               | <u>\$ 172,106,999</u>          | <u>\$ 1,770,839,001</u> |

See Notes to Financial Statements

# Arkansas Local Police and Fire Retirement System

## Statements of Changes in Fiduciary Net Position

### Years Ended December 31, 2017 and 2016

|  | 2017                              |                            |                         |
|--|-----------------------------------|----------------------------|-------------------------|
|  | Cost-Sharing<br>Multiple-Employer | Agent<br>Multiple-Employer | Total                   |
| <b>Additions</b>   |                                   |                            |                         |
| <b>Contributions</b>   |                                   |                            |                         |
| Member contributions   | \$ 23,429,576                     | \$ 22,376                  | \$ 23,451,952           |
| Employer contributions   | 77,416,248                        | 26,696,204                 | 104,112,452             |
| Local plan administrative mergers and paid military time       | 54,467                            | 34,214,500                 | 34,268,967              |
| Total contributions  | <u>100,900,291</u>                | <u>60,933,080</u>          | <u>161,833,371</u>      |
| <b>Investment Income (Loss)</b>                                |                                   |                            |                         |
| Net appreciation in fair value of investments                  | 208,018,394                       | 23,972,609                 | 231,991,003             |
| Interest, dividends and other income                           | 24,445,072                        | 2,817,117                  | 27,262,189              |
| Less investment expenses                                       | <u>(5,245,838)</u>                | <u>(604,545)</u>           | <u>(5,850,383)</u>      |
| Net investment income  | <u>227,217,628</u>                | <u>26,185,181</u>          | <u>253,402,809</u>      |
| Total additions  | <u>328,117,919</u>                | <u>87,118,261</u>          | <u>415,236,180</u>      |
| <b>Deductions</b>  |                                   |                            |                         |
| Benefit payments, including refunds and DROP distributions     | 64,503,839                        | 43,662,012                 | 108,165,851             |
| Administrative expenses  | <u>2,955,186</u>                  | <u>335,705</u>             | <u>3,290,891</u>        |
| Total deductions   | <u>67,459,025</u>                 | <u>43,997,717</u>          | <u>111,456,742</u>      |
| <b>Net Increase in Net Position Restricted for Pensions</b>    | 260,658,894                       | 43,120,544                 | 303,779,438             |
| <b>Net Position Restricted for Pensions, Beginning of Year</b> | <u>1,598,732,002</u>              | <u>172,106,999</u>         | <u>1,770,839,001</u>    |
| <b>Net Position Restricted for Pensions, End of Year</b>       | <u>\$ 1,859,390,896</u>           | <u>\$ 215,227,543</u>      | <u>\$ 2,074,618,439</u> |

See Notes to Financial Statements

# Arkansas Local Police and Fire Retirement System

## Statements of Changes in Fiduciary Net Position (Continued)

### Years Ended December 31, 2017 and 2016

|  | 2016                              |                            |                         |
|--|-----------------------------------|----------------------------|-------------------------|
|  | Cost-Sharing<br>Multiple-Employer | Agent<br>Multiple-Employer | Total                   |
| <b>Additions</b>   |                                   |                            |                         |
| <b>Contributions</b>   |                                   |                            |                         |
| Member contributions   | \$ 21,816,086                     | \$ 431,697                 | \$ 22,247,783           |
| Employer contributions   | 75,298,216                        | 23,234,239                 | 98,532,455              |
| Local plan administrative mergers and paid military time               | 38,872                            | 9,762,098                  | 9,800,970               |
| Total contributions  | <u>97,153,174</u>                 | <u>33,428,034</u>          | <u>130,581,208</u>      |
| <b>Investment Income</b>   |                                   |                            |                         |
| Net appreciation in fair value of investments                          | 61,160,043                        | 7,054,620                  | 68,214,663              |
| Interest, dividends and other income                                   | 31,815,289                        | 3,669,795                  | 35,485,084              |
| Less investment expenses   | (4,383,242)                       | (505,593)                  | (4,888,835)             |
| Net investment income  | <u>88,592,090</u>                 | <u>10,218,822</u>          | <u>98,810,912</u>       |
| Total additions  | <u>185,745,264</u>                | <u>43,646,856</u>          | <u>229,392,120</u>      |
| <b>Deductions</b>  |                                   |                            |                         |
| Benefit payments, including refunds and DROP distributions             | 58,298,612                        | 43,826,731                 | 102,125,343             |
| Administrative expenses  | 2,665,399                         | 440,689                    | 3,106,088               |
| Total deductions   | <u>60,964,011</u>                 | <u>44,267,420</u>          | <u>105,231,431</u>      |
| <b>Net Increase (Decrease) in Net Position Restricted for Pensions</b> | 124,781,253                       | (620,564)                  | 124,160,689             |
| <b>Net Position Restricted for Pensions, Beginning of Year</b>         | <u>1,473,950,749</u>              | <u>172,727,563</u>         | <u>1,646,678,312</u>    |
| <b>Net Position Restricted for Pensions, End of Year</b>               | <u>\$ 1,598,732,002</u>           | <u>\$ 172,106,999</u>      | <u>\$ 1,770,839,001</u> |

See Notes to Financial Statements

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Note 1: Reporting Entity and Summary of Significant Accounting Policies

The Arkansas Local Police and Fire Retirement System (the System or LOPFI) is a statewide retirement system for police officers and firefighters of political subdivisions of the State of Arkansas. It was established under the authority of Act 364 of 1981 and bears a fiduciary obligation to the participants of the System. LOPFI maintains a cost-sharing multiple-employer defined benefit pension plan (cost-sharing plan) for participants hired by the respective local government unit after January 1, 1983. All accumulated plan assets of the cost-sharing multiple-employer defined pension plan are available to pay any benefit (or to refund any contribution) to any plan member or beneficiary of the Plan.

Political subdivisions that had a local pension and relief fund (local plan) for its police officers and firefighters prior to the establishment of LOPFI may transfer their local plan to LOPFI for administration. Local plans that are now being administered by LOPFI are included in the agent multiple-employers defined benefit pension plan for financial reporting purposes; however, the assets of the individual local plans can only be used to pay the benefit (or to refund any contribution) to plan members or beneficiaries of the individual local plan.

The assets of all plans are pooled for investment purposes.

#### ***Basis of Accounting***

The accounting policies of the System have been established to conform to generally accepted accounting principles for state and local governments as promulgated by authoritative pronouncements issued by the Governmental Accounting Standards Board. The System is accounted for on an economic resources measurement focus using the accrual basis of accounting. Plan member and employer contributions are recognized as additions in the period in which plan member services are performed. Benefits and refunds are recognized when paid in accordance with the terms of the Plan. Deductions are recognized as incurred.

#### ***Valuation of Investments***

Investments are stated at fair value in the accompanying statements of fiduciary net position. The fair value of marketable investments, including U.S. government securities, mutual funds, corporate bonds and stocks, is determined by the latest bid price or by the closing exchange price at statement of fiduciary net position dates. The fair values of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Net increase in fair value of investments reflected in the accompanying statements of changes in fiduciary net position represents gains or losses realized during the year plus or minus the change in the net unrealized gains or losses on investments.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

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The change in net unrealized gains or losses on investments represents the change in the difference between the cost and fair value of investments at the beginning versus the end of the year.

### ***Investment Income***

Net investment income credited to each plan is allocated based on the plan's average balance of fiduciary net position.

### ***Administrative Expenses***

Administrative expenses are allocated to each plan based on the plan's average balance of fiduciary net position.

### ***Use of Estimates***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the System's management to make estimates and assumptions that affect reported amounts of assets and liabilities and disclosure of contingent assets and liabilities and the actuarial valuation of the System's benefits at the date of the financial statements and the reported changes in plan net position during the reporting period. Actual results may differ from those estimates.

### ***Reclassifications***

Certain reclassifications have been made to the 2016 financial statements to conform to the 2017 presentation. The reclassifications had no effect on the changes in fiduciary net position.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Plan Descriptions

As of December 31, 2017 and 2016, the number of participating political subdivisions was 525 and 511, respectively. At December 31, 2017 and 2016, the System's membership consisted of the following:

| Membership Classification   | Number of Employees |               |
|---|---------------------|---------------|
|   | 2017                | 2016          |
| Retired plan members or beneficiaries currently receiving benefits: |                     |               |
| Local plan fire without Social Security                             | 755                 | 717           |
| Local plan police with Social Security                              | 207                 | 182           |
| Local plan police without Social Security                           | 736                 | 677           |
| Local plan volunteer fire   | 1,197               | 976           |
| Subtotal for agent multiple-employer plans                          | <u>2,895</u>        | <u>2,552</u>  |
| LOPFI fire benefit program 2 – with Social Security                 | 16                  | 16            |
| LOPFI fire benefit program 2 – without Social Security              | 102                 | 99            |
| LOPFI fire with Social Security                                     | 48                  | 43            |
| LOPFI fire without Social Security                                  | 850                 | 738           |
| LOPFI police benefit program 2 – with Social Security               | 15                  | 17            |
| LOPFI police benefit program 2 – without Social Security            | 141                 | 117           |
| LOPFI police with Social Security                                   | 1,155               | 1,013         |
| LOPFI police without Social Security                                | 559                 | 502           |
| LOPFI staff   | 3                   | 3             |
| LOPFI volunteer fire  | 2,465               | 2,218         |
| LOPFI volunteer police  | 168                 | 140           |
| Subtotal for cost-sharing multiple-employer plans                   | <u>5,522</u>        | <u>4,906</u>  |
| Subtotal for retirees and beneficiaries                             | <u>8,417</u>        | <u>7,458</u>  |
| Active plan members:  |                     |               |
| Local plan fire without Social Security                             | 2                   | 3             |
| Local plan part paid contributory fire                              | 2                   | 2             |
| Local plan police without Social Security                           | 1                   | 1             |
| Local plan volunteer fire   | 12                  | 14            |
| Subtotal for agent multiple-employer plans                          | <u>17</u>           | <u>20</u>     |
| LOPFI fire benefit program 2 – with Social Security                 | 48                  | 47            |
| LOPFI fire benefit program 2 – without Social Security              | 176                 | 175           |
| LOPFI fire with Social Security                                     | 73                  | 74            |
| LOPFI fire without Social Security                                  | 2,317               | 2,320         |
| LOPFI police benefit program 2 – with Social Security               | 54                  | 51            |
| LOPFI police benefit program 2 – without Social Security            | 226                 | 222           |
| LOPFI police with Social Security                                   | 2,074               | 2,038         |
| LOPFI police without Social Security                                | 1,324               | 1,278         |
| LOPFI staff   | 9                   | 9             |
| LOPFI volunteer fire  | 6,933               | 6,995         |
| LOPFI volunteer police  | 408                 | 396           |
| Subtotal for cost-sharing multiple-employer plans                   | <u>13,642</u>       | <u>13,605</u> |
| Subtotal for active employees                                       | <u>13,659</u>       | <u>13,625</u> |
| Inactive plan members entitled to but not yet receiving benefits    | <u>7,514</u>        | <u>7,132</u>  |
| Total membership  | <u>29,590</u>       | <u>28,215</u> |

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

**Contributions:** The employee contribution rate depends on the type of service being rendered and whether or not the service is also covered by Social Security. The different employee contribution rates are:

- a. Paid service not covered by Social Security: 8.5% of gross pay beginning July 1, 2009; 6% prior to that date
- b. Paid service also covered by Social Security: 2.5% of gross pay beginning July 1, 2009; no employee contributions prior to that date
- c. Paid service-benefit program 2: 8.5% of gross pay beginning July 1, 2009; 6% prior to that date
- d. Volunteer service: no employee contribution

The employer contribution rate is adjusted automatically every year to reflect changes in the composition of the employee group and other factors which affect cost. Contributions are determined on an actuarial basis in order to insure that the individual system employers can honor their benefit commitments to covered employees. The individual entry age actuarial cost method of valuation is used in determining normal cost.

**Benefit Terms:** The benefits terms for the cost-sharing plan are established in accordance with the provisions of the Arkansas Code.

**Benefit Program 1:** Pension benefits to a member with five or more years (10 or more years for members hired on or after July 1, 2013) of credited service in force who has attained his normal retirement age consist of an annuity equal to the following:

- a. For each year of paid service resulting from employment in a position not also covered by Social Security, 2.94% of his final average pay (2.7% for those with retirement date prior to July 1, 2009); plus
- b. For each year of paid service resulting from employment in a position also covered by Social Security, 1.94% of his final average pay (1.7% for those with retirement date prior to July 1, 2009). In addition, if such member is retiring and if such member's age at retirement is younger than Social Security's minimum age for an unreduced retirement benefit, then such member receives a temporary annuity equal to 1% of his final average pay for each such year of paid service. Such temporary annuity terminates at the end of the calendar month in which the earliest of the following events occur: such member's death; or his attainment of such Social Security minimum age for unreduced benefits.
- c. In no event will the total of *a.* plus *b.* exceed, at time of retirement, 100% of such final average pay; plus
- d. Effective July 1, 2017, for each year of volunteer service, \$6.54 per month, to a maximum of \$261.60 monthly.



# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

- e. Before the date that the first payment of his annuity becomes due, but not thereafter, a member may elect in writing to receive his annuity as a life annuity or he may elect to have his life annuity reduced but not any temporary annuity which may be payable, and nominate a beneficiary in accordance with the provisions of one of four options. If a member does not elect an option, his annuity shall be paid to him as a life annuity.

**Benefit Program 2:** For each year of paid service rendered on or after the election date of Benefit Program 2 and resulting from employment in a position not also covered by Social Security, 3.28% of his or her final average pay, plus for each year of paid service rendered on or after the election date of Benefit Program 2 and resulting from employment in a position also covered by Social Security, 2.94% of his or her final average pay.

A member will receive disability benefits computed in the same manner as normal retirement benefits if the member has five or more years of credited service (or 10 years of actual service if hired on or after July 1, 2013) and terminates employment because of becoming totally and permanently disabled from non-duty related causes. If the disability is determined to be duty related, a benefit is 65% of the member's final average pay. Prior to that date, the benefit was computed as if the member had completed 25 years of service.

**Deferred Retirement Option Plan (DROP):** During 1993, the Arkansas General Assembly passed legislation (Acts 757 and 1004) allowing paid policemen and firefighters to elect to continue working for a period of 10 years past normal retirement age if a member of a local plan. In 2003, the Arkansas General Assembly passed legislation (Act 1734) affording paid members of LOPFI the same opportunity to continue working past normal retirement age with the maximum term being seven years. This DROP is only available to participants having at least 20 years of paid service. In addition, Act 829 of 2015 allows up to 36 months of actual LOPFI volunteer service credit to be used towards DROP eligibility. The DROP member continues his payroll withholding, the employee's contribution is credited according to law to the defined benefit pension plan and the DROP, and the monthly benefits that would have been payable had the member elected to cease employment and receive a service retirement shall be paid into a separate DROP account. At December 31, 2017 and 2016, the DROP accounts totaled \$28,872,997 and \$21,876,222, respectively.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Note 2: Net Pension Liability

The components of the net pension liability of all entities participating in the cost-sharing plan at December 31, 2017 and 2016, were as follows:

|   | 2017             | 2016             |
|---|------------------|------------------|
| Total pension liability   | \$ 2,612,647,467 | \$ 2,206,296,314 |
| Plan's fiduciary net position   | 1,859,390,896    | 1,598,732,002    |
| Net pension liability   | \$ 753,256,571   | \$ 607,564,312   |
| Plan's fiduciary net position as a percentage<br>of total pension liability | 71.17%           | 72.46%           |

### Actuarial Assumptions

The total pension liability as of December 31, 2017 and 2016, was determined by actuarial valuations as of December 31, 2017 and 2016, using the following actuarial assumptions:

|                           | 2017  | 2016  |
|---------------------------|-------|-------|
| Wage inflation            | 3.25% | 3.75% |
| Price inflation           | 2.50% | 2.75% |
| Investment rate of return | 7.00% | 7.75% |

The mortality tables used for the December 31, 2017, valuation were the RP-2014 Healthy Annuitant benefit-weighted generational mortality tables for males and females. The disability postretirement mortality tables used were the RP-2014 Disabled Retiree benefit-weighted generational mortality tables for males and females.

The mortality tables used for the December 31, 2016, valuation were the RP-2000 Combined Healthy Mortality Tables Projected to 2017 Table, set forward two years for men. Disability postretirement mortality was assumed to be the same as standard postretirement mortality set forward an additional 10 years.

The actuarial assumptions used in the December 31, 2017, valuation were based on the results of an experience study of the period 2012 to 2016. The actuarial assumptions used in the December 31, 2016, valuation were based on the results of an experience study of the period 2008 to 2011.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

| <b>2017</b>             |                          |   |
|-------------------------|--------------------------|---|
| <b>Asset Class</b>      | <b>Target Allocation</b> | <b>Long-Term Expected<br/>Real Rate of Return</b> |
| Fixed income            | 27.00%                   | 0.78%   |
| Domestic equity         | 42.00%                   | 5.58%   |
| Foreign equity          | 18.00%                   | 7.38%   |
| Alternative investments | 10.00%                   | 6.23%   |
| Cash                    | 3.00%                    | 0.00%   |
| Total                   | <u>100.00%</u>           |   |

| <b>2016</b>                |                          |   |
|----------------------------|--------------------------|---|
| <b>Asset Class</b>         | <b>Target Allocation</b> | <b>Long-Term Expected<br/>Real Rate of Return</b> |
| Domestic fixed income      | 30.00%                   | 2.97%   |
| International fixed income | 6.00%                    | 1.50%   |
| Domestic equity            | 33.00%                   | 5.88%   |
| Foreign equity             | 7.00%                    | 6.25%   |
| Index                      | 11.00%                   | 6.73%   |
| Alternative investments    | 10.00%                   | 6.13%   |
| Cash                       | 3.00%                    | -0.40%  |
| Total                      | <u>100.00%</u>           |   |

### **Single Discount Rate**

The single discount rate used to measure the total pension liability was 7.00% and 7.75% for the years ended December 31, 2017 and 2016, respectively. The single discount rate was based on the expected rate of return on pension plan investments.

The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

Plan assets are expected to be invested using a strategy to achieve the expected rate of return. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the net pension liability as of December 31, 2017, calculated using a single discount rate of 7.00%, as well as what the net pension liability would be if it were calculated using a single discount rate that is 1 percent lower or 1 percent higher:

|                       | 1% Decrease<br>6.00% | Current Single<br>Discount Rate<br>7.00% | 1% Increase<br>8.00% |
|-----------------------|----------------------|--|----------------------|
| Net pension liability | \$ 1,182,982,919     | \$ 753,256,571                           | \$ 407,164,068       |

### Note 3: Deposits and Investments

The System's deposits and investments are managed by various investment managers who have discretionary authority over the assets managed by them, within the investment guidelines established by LOPFI, under contracts with the System.

#### ***Custodial Credit Risk***

Custodial credit risk is the risk that, in the event of the failure of the custodian, the System will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party.

The System's deposits and investments are held by the System's custodian in the System's name. Investments are uninsured and generally consist of short-term securities, U.S. and foreign government securities, domestic and foreign corporate debt and equity securities, real estate and real estate trusts. The state law requires collateralization of all deposits with federal depository insurance and other acceptable collateral in specific amounts. The System's investment policy does not directly address custodial credit risk. At December 31, 2017, all of the System's deposits were either insured or collateralized with securities pledged in the System's name.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### **Credit Risk**

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the System. The System's investment policy does not allow for more than 10% of the current market value of the Fixed Income Portfolio to be invested in securities rated less than Baa by Moody's bond rating service or BBB by Standard & Poor's, or the equivalent by a recognized rating agency. In addition, the minimum security quality shall be B or better.

The following table summarizes the System's fixed income portfolio exposure levels and credit qualities at December 31, 2017 and 2016:

|   | <u>2017</u>          | <u>2016</u>          |
|---|----------------------|----------------------|
| <b>Fixed Income Security Type by S&amp;P Rating</b> |                      |                      |
| Corporate and Foreign Bonds                         |                      |                      |
| AA  | \$ 3,144,623         | \$ -                 |
| A   | 18,912,916           | 17,334,080           |
| BBB   | <u>7,935,242</u>     | <u>6,195,015</u>     |
|   | <u>29,992,781</u>    | <u>23,529,095</u>    |
| <b>Collateralized Mortgage Obligations</b>          |                      |                      |
| BB  | <u>-</u>             | <u>258,532</u>       |
| <b>Mortgage-Backed Securities</b>                   |                      |                      |
| Not rated   | <u>12,589,085</u>    | <u>16,775,333</u>    |
|   | <u>\$ 42,581,866</u> | <u>\$ 40,562,960</u> |

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System's interest rate risk is controlled through duration management. Duration is a measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates, and is expressed as a number of years. In accordance with its investment policy, the fixed income portfolio shall vary from the duration of the relative comparative indices by no more than +/-25%. As of December 31, 2017 and 2016, the System's effective duration by investment type was:

| Fixed Income Security Type                 | Duration |       |
|--|----------|-------|
|  | 2017     | 2016  |
| U.S. Government and Government Related     | 2.25     | 2.37  |
| Non-U.S. Government and Government Related | 0.71     | 0.98  |
| U.S. Credit                                | 0.71     | 0.98  |
| Non-U.S. Credit                            | -0.54    | 0.23  |
| Mortgage-Backed                            | 1.09     | 0.81  |
| Non-Agency Mortgage-Backed                 | 0.00     | 0.04  |
| Asset-Backed                               | 0.01     | 0.03  |
| Other                                      | 0.02     | 0.20  |
| Cash                                       | 0.13     | -0.11 |
| Total Duration                             | 4.38     | 5.53  |

### Rate of Return

For the years ended December 31, 2017 and 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 13.91% and 5.76%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### Investment Policies

The LOPFI Board (the Board) has been appointed by the Governor to oversee the investments of LOPFI. The Board is responsible for establishing overall financial objectives and setting the investment policy. The Board will carry out its responsibilities by acting on recommendations made to it by the Investment Committee (the Committee). The Committee shall consist of at least three trustees of the Board. An amendment to the investment policy first requires a majority approval of the Committee and then review and approval by the Board.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Note 4: Disclosures About Fair Value of Assets and Liabilities

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurements must maximize the use of observable inputs and minimize the use of unobservable inputs. There is a hierarchy of three levels of inputs that may be used to measure fair value:

- Level 1** Quoted prices in active markets for identical assets or liabilities
- Level 2** Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities
- Level 3** Unobservable inputs supported by little or no market activity and are significant to the fair value of the assets or liabilities

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Recurring Measurements

The following tables present the fair value measurements of assets and liabilities recognized in the accompanying financial statements measured at fair value on a recurring basis and the level within the fair value hierarchy in which the fair value measurements fall at December 31, 2017 and 2016:

|   | Fair Value              | Quoted Prices<br>in Active<br>Markets for<br>Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
|---|-------------------------|---|---|--|
| <b>December 31, 2017</b>  |                         |   |   |  |
| <b>Investments by Fair Value Level</b>                                  |                         |   |   |  |
| Equity securities – diversified   | \$ 349,431,987          | \$ 349,431,987  | \$ -  | \$ -   |
| Equity securities – foreign   | 49,452,074              | 49,452,074  | -   | -  |
| Equity mutual funds   | 681,369,109             | 164,031,932   | 517,337,177   | -  |
| International equity mutual funds                                       | 116,523,792             | -   | 116,523,792   | -  |
| Fixed income mutual funds   | 412,708,994             | 189,510,523   | 223,198,471   | -  |
| Real estate investment trusts   | 1,715,246               | 1,715,246   | -   | -  |
| U.S. government obligations   | 82,198,861              | -   | 82,198,861  | -  |
| Corporate bonds   | 29,992,781              | -   | 29,992,781  | -  |
| Mortgage-backed securities  | 12,589,085              | -   | 12,589,085  | -  |
|   | <u>1,735,981,929</u>    | <u>754,141,762</u>  | <u>981,840,167</u>  | <u>-</u>   |
| <b>Investments Measured at the Net Asset Value (NAV) <sup>(A)</sup></b> |                         |   |   |  |
| Private equity funds  | 60,278,372              |   |   |  |
| Private debt funds  | 21,487,788              |   |   |  |
| Equity long/short hedge funds   | 25,509,866              |   |   |  |
| Commercial real estate funds  | 24,972,579              |   |   |  |
| Bank recapitalization and value opportunities funds                     | 13,165,750              |   |   |  |
| Energy funds  | 12,327,379              |   |   |  |
| Opportunistic credit funds  | 22,194,894              |   |   |  |
|   | <u>179,936,628</u>      |   |   |  |
| Total investments measured at fair value                                | <u>\$ 1,915,918,557</u> | <u>\$ 754,141,762</u>   | <u>\$ 981,840,167</u>                                     | <u>\$ -</u>  |



# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

### December 31, 2017 and 2016

|   | Fair Value              | Quoted Prices<br>in Active<br>Markets for<br>Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
|---|-------------------------|---|---|--|
| <b>December 31, 2016</b>  |                         |   |   |  |
| <b>Investments by Fair Value Level</b>                                  |                         |   |   |  |
| Equity securities – diversified   | \$ 265,267,511          | \$ 265,267,511  | \$ -  | \$ -   |
| Equity securities – foreign   | 63,028,463              | 63,028,463  | -   | -  |
| Equity mutual funds   | 574,876,320             | -   | 574,876,320   | -  |
| International equity mutual funds                                       | 30,367,211              | -   | 30,367,211  | -  |
| Fixed income mutual funds   | 414,717,805             | -   | 414,717,805   | -  |
| U.S. government obligations   | 57,933,795              | -   | 57,933,795  | -  |
| Corporate bonds   | 23,529,095              | -   | 23,529,095  | -  |
| Collateralized mortgage obligations                                     | 258,532                 | -   | 258,532   | -  |
| Mortgage-backed securities  | 16,775,333              | -   | 16,775,333  | -  |
| Total investments by fair value level                                   | <u>1,446,754,065</u>    | <u>328,295,974</u>  | <u>1,118,458,091</u>                                      | <u>-</u>   |
| <b>Investments Measured at the Net Asset Value (NAV) <sup>(A)</sup></b> |                         |   |   |  |
| Private equity funds  | 53,872,973              |   |   |  |
| Private debt funds  | 23,049,216              |   |   |  |
| Equity long/short hedge funds   | 18,647,882              |   |   |  |
| Commercial real estate funds  | 23,524,451              |   |   |  |
| Commodity long/short hedge funds  | 14,316,229              |   |   |  |
| Bank recapitalization and value opportunities funds                     | 11,928,304              |   |   |  |
| Energy funds  | 7,571,127               |   |   |  |
| Opportunistic credit funds  | 16,155,924              |   |   |  |
| Total investments measured at the NAV                                   | <u>169,066,106</u>      |   |   |  |
| Total investments measured at fair value                                | <u>\$ 1,615,820,171</u> | <u>\$ 328,295,974</u>   | <u>\$ 1,118,458,091</u>                                   | <u>\$ -</u>  |

- (A) Certain investments that are measured using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts included above are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statements of fiduciary net position.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

### Investments

Where quoted market prices are available in an active market, securities are classified within Level 1 of the valuation hierarchy. If quoted market prices are not available, then fair values are estimated by using quoted prices of securities with similar characteristics or independent asset pricing services and pricing models, the inputs of which are market-based or independently sourced market parameters, including, but not limited to, yield curves, interest rates, volatilities, prepayments, defaults, cumulative loss projections and cash flows. Such securities are classified in Level 2 of the valuation hierarchy. In certain cases where Level 1 or Level 2 inputs are not available, securities are classified within Level 3 of the hierarchy.

Information that regarding the nature and risks of the investments and whether the investments are probable of being sold at amounts different from the NAV per share (or its equivalent) is presented below.

|   | December 31, 2017 |                      |                      |                          |
|---|-------------------|----------------------|----------------------|--------------------------|
|   | Fair Value        | Unfunded Commitments | Redemption Frequency | Redemption Notice Period |
| Private equity funds <sup>(A)</sup>                                   | \$ 53,237,721     | \$ 39,371,781        |                      |                          |
| Private equity funds <sup>(A)</sup>                                   | 7,040,651         | -                    | Semi-annually        | 5 Months                 |
| Private debt funds <sup>(B)</sup>                                     | 21,487,788        | 18,771,137           |                      |                          |
| Equity long/short hedge funds <sup>(C)</sup>                          | 25,509,866        | -                    | Quarterly            | 90 Days                  |
| Commercial real estate funds <sup>(D)</sup>                           | 24,972,579        | -                    | Quarterly            | 45 Days                  |
| Bank recapitalization and value<br>opportunistic funds <sup>(F)</sup> | 13,165,750        | 9,750,000            |                      |                          |
| Energy funds <sup>(G)</sup>   | 12,327,379        | 6,793,722            |                      |                          |
| Opportunistic credit funds <sup>(H)</sup>                             | 22,194,894        | -                    | Annually             | 90 Days                  |
|   |                   |                      |                      |                          |
|   | December 31, 2016 |                      |                      |                          |
|   | Fair Value        | Unfunded Commitments | Redemption Frequency | Redemption Notice Period |
| Private equity funds <sup>(A)</sup>                                   | \$ 53,872,974     | \$ 26,346,508        |                      |                          |
| Private debt funds <sup>(B)</sup>                                     | 23,049,216        | 23,950,033           |                      |                          |
| Equity long/short hedge funds <sup>(C)</sup>                          | 18,647,882        | -                    | Quarterly            | 95 Days                  |
| Commercial real estate funds <sup>(D)</sup>                           | 23,524,451        | -                    | Quarterly            | 45 Days                  |
| Commodity long/short hedge funds <sup>(E)</sup>                       | 14,316,229        | -                    | Quarterly            |                          |
| Bank recapitalization and value<br>opportunistic funds <sup>(F)</sup> | 11,928,304        | 10,250,000           |                      |                          |
| Energy funds <sup>(G)</sup>   | 7,571,127         | 10,286,507           |                      |                          |
| Opportunistic credit funds <sup>(H)</sup>                             | 16,155,924        | -                    |                      |                          |

- (A) This category includes investments in private investment companies that are closed ended and which redemptions are not permitted. Instead, the nature of the investments in this category is that distributions are received through the liquidation of underlying assets of the fund. The fair values of the investments in this category have been estimated using recent observable transaction information for similar investments.

# Arkansas Local Police and Fire Retirement System

## Notes to Financial Statements

December 31, 2017 and 2016

- (B) This category includes a diversified portfolio of private debt investments in transactions sponsored by private equity sponsors, including leverage buyouts, refinancings, acquisitions and growth capital. These investments can never be redeemed with the funds.
- (C) This category includes investments in hedge funds that take both long and short positions in equities. Management of the funds has the ability to shift investments among differing investment strategies.
- (D) This category includes several real estate funds that invest primarily in U.S. commercial real estate. Distributions from each fund will be made as the underlying investments of the funds are liquidated.
- (E) This category includes both long and short positions in commodities. Management of the funds has the ability to shift investments among differing investment strategies. These investments can never be redeemed with the funds.
- (F) This category invests primarily in performing, underperforming or nonperforming loans, asset-backed securities, residential and commercial real estate and other debt instruments. These investments can never be redeemed with the funds.
- (G) This fund invests primarily in oil and gas and minerals and royalties. These investments can never be redeemed with the funds.
- (H) This category includes a diversified portfolio of loans and bonds. These investments can never be redeemed with the funds.

### Note 5: Risks and Uncertainties

The System invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statements of fiduciary net position.

System contributions are made and the actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimation and assumption process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

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## Required Supplementary Information

# Arkansas Local Police and Fire Retirement System

## Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios

|   | 2017                           | 2016                           | 2015                           | 2014                           |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Total Pension Liability</b>  |                                |                                |                                |                                |
| Service cost  | \$ 52,999,883                  | \$ 52,411,007                  | \$ 50,466,076                  | \$ 51,147,644                  |
| Interest on the total pension liability   | 170,545,435                    | 157,522,879                    | 146,226,976                    | 134,748,677                    |
| Benefit changes   | -                              | -                              | -                              | 272,375                        |
| Differences between expected and actual experience                                  | 27,286,660                     | 19,163,957                     | 5,172,371                      | (1,779,051)                    |
| Assumption changes  | 219,939,183                    | -                              | 53,731,281                     | -                              |
| Benefit payments, DROP Distributions and Refunds                                    | (64,420,008)                   | (58,298,612)                   | (45,407,579)                   | (35,732,645)                   |
| <b>Net Change in Total Pension Liability</b>  | <u>406,351,153</u>             | <u>170,799,231</u>             | <u>210,189,125</u>             | <u>148,657,000</u>             |
| <b>Total Pension Liability, Beginning of Year</b>                                   | <u>2,206,296,314</u>           | <u>2,035,497,083</u>           | <u>1,825,307,958</u>           | <u>1,676,650,958</u>           |
| <b>Total Pension Liability, End of Year</b>   | <u><u>\$ 2,612,647,467</u></u> | <u><u>\$ 2,206,296,314</u></u> | <u><u>\$ 2,035,497,083</u></u> | <u><u>\$ 1,825,307,958</u></u> |
| <b>Plan Fiduciary Net Position</b>  |                                |                                |                                |                                |
| Employer contributions  | \$ 77,416,248                  | \$ 75,298,216                  | \$ 67,624,600                  | \$ 63,964,129                  |
| Employee contributions  | 23,429,576                     | 21,816,086                     | 21,187,024                     | 21,844,747                     |
| Other contributions   | 54,467                         | 38,872                         | 34,066                         | 56,744                         |
| Pension plan net investment income  | 227,217,628                    | 88,592,090                     | 1,642,306                      | 95,052,926                     |
| Benefit payments, DROP Distributions and Refunds                                    | (64,503,839)                   | (58,298,612)                   | (45,407,579)                   | (35,732,645)                   |
| Pension plan administrative expense   | (2,955,186)                    | (2,665,399)                    | (2,482,123)                    | (2,258,660)                    |
| <b>Net Change in Plan Fiduciary Net Position</b>                                    | <u>260,658,894</u>             | <u>124,781,253</u>             | <u>42,598,294</u>              | <u>142,927,241</u>             |
| <b>Plan Fiduciary Net Position, Beginning of Year</b>                               | <u>1,598,732,002</u>           | <u>1,473,950,749</u>           | <u>1,431,352,455</u>           | <u>1,288,425,214</u>           |
| <b>Plan Fiduciary Net Position, End of Year</b>                                     | <u><u>\$ 1,859,390,896</u></u> | <u><u>\$ 1,598,732,002</u></u> | <u><u>\$ 1,473,950,749</u></u> | <u><u>\$ 1,431,352,455</u></u> |
| <b>Net Pension Liability, End of Year</b>   | <u><u>\$ 753,256,571</u></u>   | <u><u>\$ 607,564,312</u></u>   | <u><u>\$ 561,546,334</u></u>   | <u><u>\$ 393,955,503</u></u>   |
| <b>Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability</b> | 71.17%                         | 72.46%                         | 72.41%                         | 78.42%                         |
| <b>Covered Payroll</b>  | \$ 339,098,676                 | \$ 329,344,355                 | \$ 320,487,331                 | \$ 310,870,608                 |
| <b>Plan's Net Pension Liability as a Percentage of Covered-Employee Payroll</b>     | 222.13%                        | 184.48%                        | 175.22%                        | 126.73%                        |

Note: This schedule is presented to illustrate the requirement to show 10 years of information. However, until a full 10-year trend is compiled, years for which the information is available will be presented.

# Arkansas Local Police and Fire Retirement System

## Required Supplementary Information

### Schedule of Employer Contributions

| Fiscal Year<br>Ending | Actuarially<br>Determined<br>Contribution | Actual<br>Contribution | Contribution<br>Deficiency<br>(Excess) | Covered<br>Payroll | Actual Contribution<br>as a % of<br>Covered Payroll |
|-----------------------|---|------------------------|--|--------------------|---|
| 12/31/2008            | \$ 40,015,631                             | \$ 40,015,631          | \$ -                                   | \$ 244,703,982     | 16.35%  |
| 12/31/2009            | 41,959,589                                | 41,959,589             | -                                      | 261,756,026        | 16.03%  |
| 12/31/2010            | 42,909,816                                | 42,909,816             | -                                      | 265,628,662        | 16.15%  |
| 12/31/2011            | 50,273,110                                | 50,273,110             | -                                      | 274,656,592        | 18.30%  |
| 12/31/2012            | 52,566,774                                | 52,566,774             | -                                      | 282,170,105        | 18.63%  |
| 12/31/2013            | 58,394,334                                | 58,394,334             | -                                      | 296,617,370        | 19.69%  |
| 12/31/2014            | 63,964,129                                | 63,964,129             | -                                      | 310,870,608        | 20.58%  |
| 12/31/2015            | 67,624,600                                | 67,624,600             | -                                      | 320,487,331        | 21.10%  |
| 12/31/2016            | 75,298,216                                | 75,298,216             | -                                      | 329,344,355        | 22.86%  |
| 12/31/2017            | 77,410,021                                | 77,410,021             | -                                      | 339,098,676        | 22.83%  |

**Valuation Date:** Actuarially determined contribution rates are calculated as of December 31, 2015, which is one year prior to the beginning of the fiscal year in which contributions are reported.

**Methods and Assumptions Used to Determine Contribution Rates:**

|                               |  |
|-------------------------------|--|
| Actuarial Cost Method         | Entry Age Normal   |
| Amortization Method           | Level Percentage of Payroll, Closed  |
| Remaining Amortization Period | 17 years beginning January 1, 2019   |
| Asset Valuation Method        | 5-Year smoothed market, 20% corridor   |
| Wage Inflation                | 3.75%  |
| Price Inflation               | 2.75%  |
| Salary Increases              | 4.25% to 18.75%, including inflation   |
| Investment Rate of Return     | 7.75%  |
| Retirement Age                | Experience-based table of rates that are specific to the type of eligibility condition. Last update for the 2012 valuation pursuant to an experience study of the period 2008–2011.                              |
| Mortality                     | RP-2000 Combined Projected to 2017 Table, set forward two years for men. Disability postretirement mortality was assumed to be the same as standard postretirement mortality set forward an additional 10 years. |

**Other Information:**

Notes: There were no changes in benefit provisions or methods in the December 31, 2015, actuarial valuation. Economic assumptions were updated in the December 31, 2015, valuation to a 7.75% investment return assumption, a 3.75% wage inflation assumption and a 2.75% price inflation assumption.

**Arkansas Local Police and Fire Retirement System**  
**Required Supplementary Information**  
**Schedule of Investment Returns**

| <b>Fiscal Year<br/>Ending</b> | <b>Annual Money-Weighted Rate of<br/>Return, Net of Investment Expense</b> |
|-------------------------------|--|
| 12/31/2008                    | -25.24%  |
| 12/31/2009                    | 17.75%   |
| 12/31/2010                    | 9.57%  |
| 12/31/2011                    | 0.20%  |
| 12/31/2012                    | 11.17%   |
| 12/31/2013                    | 17.33%   |
| 12/31/2014                    | 6.80%  |
| 12/31/2015                    | -0.05%   |
| 12/31/2016                    | 5.76%  |
| 12/31/2017                    | 13.91%   |

Note: This schedule provides the returns for the cost-sharing multiple-employer defined benefit pension plan and the agent multiple-employers defined benefit pension plans.

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## Other Supplementary Information



# Arkansas Local Police and Fire Retirement System

## Schedule of Administrative Expenses

### Years Ended December 31, 2017 and 2016

|   | 2017         | 2016         |
|---|--------------|--------------|
| <b>Personal Services</b>                  |              |              |
| Staff expense                             | \$ 710,307   | \$ 673,189   |
| <br>                                      |              |              |
| <b>Professional Services</b>              |              |              |
| Computer operations/process               | 1,728,813    | 1,532,695    |
| Audit services                            | 85,000       | 67,000       |
| Actuarial services                        | 310,450      | 295,298      |
| Legal services                            | 145,000      | 120,436      |
| Medical advisor/related                   | 57,498       | 57,073       |
| Total professional services               | 2,326,761    | 2,072,502    |
| <br>                                      |              |              |
| <b>General Operating Expense</b>          |              |              |
| Insurance expense                         | 54,797       | 50,531       |
| Office equipment                          | 29,410       | 36,517       |
| Office supplies                           | 16,268       | 28,107       |
| Printing                                  | 18,449       | 15,409       |
| Telephone                                 | 17,216       | 16,282       |
| Postage                                   | 17,094       | 16,719       |
| Publications                              | 1,779        | 962          |
| Travel/professional education/conferences | 44,715       | 26,787       |
| Board/kitchen supplies                    | 2,642        | 3,280        |
| Miscellaneous                             | 13,006       | -            |
| Total general operating expense           | 215,376      | 194,594      |
| <br>                                      |              |              |
| Total expenses                            | 3,252,444    | 2,940,285    |
| <br>                                      |              |              |
| Depreciation expense                      | 38,447       | 165,803      |
| <br>                                      |              |              |
| <b>Total Administrative Expenses</b>      | \$ 3,290,891 | \$ 3,106,088 |

**Arkansas Local Police and Fire Retirement System**  
**Schedule of Investment Expenses**  
**Years Ended December 31, 2017 and 2016**

|                             | <b>2017</b>  | <b>2016</b>  |
|-----------------------------|--------------|--------------|
| Investment consulting fees  | \$ 680,000   | \$ 400,000   |
| Money manager fees          | 4,765,383    | 4,122,585    |
| Custodial fees              | 216,000      | 216,000      |
| Investment monitor expenses | 189,000      | 150,250      |
| Total investment expenses   | \$ 5,850,383 | \$ 4,888,835 |



# Stephens Inc.

May 2018

Dear Trustees:

For the benefit of the Arkansas Local Police and Fire Retirement System (LOPFI) Plan, we have prepared a year-end review of the Plan's investment returns and the portfolio's targeted/actual allocations among their respective asset classes (according to information provided by Thistle Asset Consulting). The Plan's investments are consistent with the stated Investment Policy.

LOPFI's targeted asset mix is based on the Fund's Investment Policy and includes but is not limited to the plan's investment time horizon, risk parameters, actuarial assumptions and cash flow needs. The Plan's investment platform is consistent with the long-term investment objectives and risk parameters of the Plan and utilizes both a passive and active strategy with an emphasis on achieving long-term risk adjusted rates of return. The portfolio's current allocations are as follows:

|                                | <b>Allocation<br/>As of 12/31/17</b> | <b>Permissible<br/>Range</b> |
|--------------------------------|--------------------------------------|------------------------------|
| <b>Domestic Equities</b>       |                                      |                              |
| Large Cap                      | 34                                   | 15-30%                       |
| Mid Cap                        | 1                                    | 15-30%                       |
| Small Cap                      | 2                                    | 0-20%                        |
| <b>Foreign Equities</b>        | 7                                    | 0-10%                        |
| <b>Index</b>                   | 12                                   | 5-15%                        |
| <b>US Bonds</b>                | 23                                   | 20-50%                       |
| <b>Foreign Bonds</b>           | 4                                    | 0-10%                        |
| <b>Alternative Investments</b> | 12                                   | 0-15%                        |
| <b>Cash</b>                    | 5                                    | 0-20%                        |

LOPFI's portfolio was up 14.48%\* for the fiscal year ended 2017 versus the comparative index return of 13.94%\* with an ending market value of \$2.038 billion\* (which includes balances held in the liquidation account).

As the Investment Advisor to LOPFI, the above-referenced information was provided to assist the LOPFI Board of Trustees in their effort to provide financial disclosures about the plan.

The primary objective of the plan is to provide retirement plan benefits to the police and fire retirees. This policy oversight and implementation is governed by the Board of Trustees with additional guidance provided by an Investment Committee (comprised of LOPFI trustees) which is

more fully described in the plan's Investment Objectives and Guidelines. The responsibility of the trustees includes, but is not limited to, the allocation of assets, permissible investments, targeted ranges, manager oversight, and the review of performance standards.

Sincerely,



Larry Middleton  
EVP/Managing Director

\* Source: Thistle Asset Consulting. Thistle Asset Consulting reports that it employs monthly time-weighted performance measurement techniques that are consistent with the Charter Financial Analyst Institute performance presentation standards. Periodic discrepancies in returns may occur with subadvisors as a result of trade settlements, and/or lack of secondary markets, and/or pricing.

Please note: as reported by our international managers, the foreign currency exposure is less than 1% of the bond portion of the portfolio.

*The statements contained herein, while not guaranteed, are taken from sources we consider to be reliable. Month-end statements should remain as your documents of record. Past performance is no guarantee of future results.*

Investment Bankers  
[www.stephens.com](http://www.stephens.com)

111 Center Street P.O. Box 3507 Little Rock, Arkansas 72203 501-377-3493 Fax 501-210-4619

## LOPFI INVESTMENT PERFORMANCE Ten Year History

| <b>ANNUAL VALUES</b><br><b>Investment Return % (TW*) For Period</b><br><b>[Asset Market Value (millions) End of Period]</b> |                         |                             |                         |                       |                       |
|---|-------------------------|-----------------------------|-------------------------|-----------------------|-----------------------|
| <b>Period Ended</b>   | <b>Total Fund</b>       | <b>Inflation<br/>+ 3%**</b> | <b>Equities</b>         | <b>Fixed Income</b>   | <b>Cash</b>           |
| 12/31/08  | -25.54%<br>[\$622,321]  | 3.1%                        | -39.85%<br>[\$317,201]  | -0.27%<br>[\$324,485] | -34.40%<br>[\$-19.35] |
| 12/31/09  | 18.07%<br>[\$811,937]   | 5.7%                        | 27.75%<br>[\$411,003]   | 11.10%<br>[\$328,637] | 2.03%<br>[\$72,307]   |
| 12/31/10  | 10.68%<br>[\$935,008]   | 4.6%                        | 14.33%<br>[\$528,115]   | 7.58%<br>[\$354,755]  | -2.00%<br>[\$71,145]  |
| 12/31/11  | -0.42%<br>[\$965,161]   | 6.0%                        | 11.98%<br>[\$532,178]   | 3.92%<br>[\$368,899]  | 0.56%<br>[\$83,299]   |
| 12/31/12  | 12.30%<br>[\$1,126,128] | 4.7%                        | 16.30%<br>[\$683,028]   | 7.48%<br>[\$412,214]  | 5.27%<br>[\$30,886]   |
| 12/31/13  | 17.76%<br>[\$1,445,479] | 4.5%                        | 31.40%<br>[\$938,956]   | -2.14%<br>[\$423,458] | 0.02%<br>[\$83,065]   |
| 12/31/14  | 8.16%<br>[\$1,599,410]  | 3.7%                        | 10.70%<br>[\$1,051,403] | 4.02%<br>[\$461,241]  | 1.85%<br>[\$105,313]  |
| 12/31/15  | 0.10%<br>[\$1,628,538]  | 4.1%                        | 0.16%<br>[\$1,053,718]  | 0.06%<br>[\$461,935]  | 0.02%<br>[\$112,885]  |
| 12/31/16  | 6.25%<br>[\$1,735,363]  | 5.5%                        | 8.88%<br>[\$974,647]    | 3.15%<br>[\$488,906]  | 0.08%<br>[\$107,818]  |
| 12/31/17  | 14.48%<br>[\$2,037,994] | 5.6%                        | 22.92%<br>[\$1,394,069] | 4.80%<br>[\$538,625]  | 0.10%<br>[\$105,300]  |

### **QUARTERLY VALUES (RETURNS)**

| <b>Period Ended</b> | <b>Total Fund</b> | <b>Equities</b> | <b>Fixed Income</b> |
|---------------------|-------------------|-----------------|---------------------|
| 12/31/2017          | 3.56%             | 6.11%           | 0.32%               |

EQUITIES means common stocks and real estate

FIXED INCOME means long-term debt investment and convertibles

CASH means cash and cash equivalents (short term debt)

TOTAL FUND means equities plus fixed income plus cash (Net of investment fees beginning 2008)

**\* Time-weighted based on market rate of return and trade date of transactions**

**\*\*December 31 to December 31**

# Arkansas LOPFI Retirement System

## Executive Summary

### Market Values

December 31, 2017

Asset Allocation By Manager as of  
September 30, 2017 : \$1,934,939,064

Asset Allocation By Manager as of  
December 31, 2017 : \$2,037,993,984

| Allocation                            |  | Market Value | Allocation | Allocation                            |  | Market Value | Allocation |
|---------------------------------------|--|--------------|------------|---------------------------------------|--|--------------|------------|
| Wellington Equity                     |  | 250,644,943  | 13.0       | Wellington Equity                     |  | 271,217,792  | 13.3       |
| State Street Flagship Index Fd        |  | 230,764,306  | 11.9       | State Street Flagship Index Fd        |  | 246,119,384  | 12.1       |
| PIMCO Intern Fixed Inc.               |  | 189,302,342  | 9.8        | PIMCO Intern Fixed Inc.               |  | 189,512,075  | 9.3        |
| Dodge & Cox Stock Fund                |  | 155,112,998  | 8.0        | Dodge & Cox Stock Fund                |  | 164,031,933  | 8.0        |
| Barrow LCV                            |  | 149,039,789  | 7.7        | Barrow LCV                            |  | 157,895,468  | 7.7        |
| WAMCO US CORE                         |  | 117,777,492  | 6.1        | GHA Fixed Income                      |  | 125,914,029  | 6.2        |
| Liquidation (Cash)                    |  | 110,715,364  | 5.7        | WAMCO US CORE                         |  | 118,899,024  | 5.8        |
| Lazard Equity                         |  | 109,891,122  | 5.7        | Lazard Equity                         |  | 114,986,782  | 5.6        |
| GHA Fixed Income                      |  | 100,805,336  | 5.2        | Liquidation (Cash)                    |  | 105,299,578  | 5.2        |
| Aberdeen Intl Fixed Inc.              |  | 72,585,983   | 3.8        | Aberdeen Intl Fixed Inc.              |  | 73,144,691   | 3.6        |
| New South Capital Equity              |  | 44,657,359   | 2.3        | New South Capital Equity              |  | 46,225,485   | 2.3        |
| Fisher Intl Eq                        |  | 40,525,223   | 2.1        | Fisher Intl Eq                        |  | 41,611,289   | 2.0        |
| Global Currents Intl Eq/Clearbridge   |  | 35,573,038   | 1.8        | Global Currents Intl Eq/Clearbridge   |  | 37,695,977   | 1.8        |
| Fisher Emerging Mkts                  |  | 33,254,000   | 1.7        | Fisher Emerging Mkts                  |  | 35,152,000   | 1.7        |
| Congress Equity                       |  | 32,256,652   | 1.7        | Congress Equity                       |  | 33,427,145   | 1.6        |
| WAMCO High Yield                      |  | 31,112,670   | 1.6        | WAMCO High Yield                      |  | 31,154,757   | 1.5        |
| Wellington International Growth       |  | 26,034,386   | 1.3        | Wellington International Growth       |  | 27,294,671   | 1.3        |
| AIM Thirteen Partners Equity          |  | 24,610,671   | 1.3        | AIM Thirteen Partners Equity Offshore |  | 25,505,285   | 1.3        |
| JP Morgan RE                          |  | 24,590,984   | 1.3        | AIM Thirteen Partners Equity          |  | 24,991,263   | 1.2        |
| AIM Thirteen Partners Equity Offshore |  | 20,108,108   | 1.0        | JP Morgan RE                          |  | 24,972,586   | 1.2        |
| Chickasaw Capital                     |  | 18,829,539   | 1.0        | Goldentree Select Offshore            |  | 21,897,993   | 1.1        |
| Goldentree Select Offshore            |  | 16,950,219   | 0.9        | Chickasaw Capital                     |  | 18,800,952   | 0.9        |
| Wellington Commodities                |  | 15,950,973   | 0.8        | Wellington Commodities                |  | 16,381,155   | 0.8        |
| KKR Energy Income & Growth            |  | 13,674,683   | 0.7        | KKR Energy Income & Growth            |  | 12,327,379   | 0.6        |
| PIMCO Bravo II                        |  | 11,371,365   | 0.6        | PIMCO Bravo II                        |  | 11,938,994   | 0.6        |
| NB Private Debt                       |  | 10,826,021   | 0.6        | NB Private Debt                       |  | 11,675,599   | 0.6        |
| Citco                                 |  | 8,946,589    | 0.5        | Macquarie Infrastructure              |  | 8,654,374    | 0.4        |
| Macquarie Infrastructure              |  | 8,466,484    | 0.4        | Citco                                 |  | 7,416,820    | 0.4        |
| JP Morgan Infrastructure              |  | 6,837,077    | 0.4        | JP Morgan Infrastructure              |  | 7,246,583    | 0.4        |
| Owl Rock Direct Lending               |  | 6,542,287    | 0.3        | Owl Rock Direct Lending               |  | 6,594,108    | 0.3        |
| KKR Direct Lending                    |  | 5,249,601    | 0.3        | KKR Direct Lending                    |  | 4,668,391    | 0.2        |
| KKR Mezzanine                         |  | 4,160,242    | 0.2        | KKR Mezzanine                         |  | 4,165,286    | 0.2        |
| Citigroup-StepStone Private Equity    |  | 3,057,454    | 0.2        | Goldman Sachs Vintage VII             |  | 3,580,388    | 0.2        |
| NB Crossroads                         |  | 1,786,346    | 0.1        | Citigroup-StepStone Private Equity    |  | 3,439,821    | 0.2        |
| Goldman Sachs Vintage VII             |  | 1,266,342    | 0.1        | NB Crossroads                         |  | 1,936,346    | 0.1        |
| PIMCO Bravo III                       |  | 1,047,406    | 0.1        | PIMCO Bravo III                       |  | 1,552,238    | 0.1        |
| PIMCO Bravo I                         |  | 613,669      | 0.0        | PIMCO Bravo I                         |  | 666,344      | 0.0        |



# Arkansas LOPFI Retirement System

## Performance Evaluation Summary (Net Returns)

All calculations are time-weighted based on the market values and trade date of each transaction received from the bank.  
December 31, 2017

| Asset Allocation & Performance | Allocation           |              | Performance(%) |              |              |              |              |             |                   | Inception Date |
|--------------------------------|----------------------|--------------|----------------|--------------|--------------|--------------|--------------|-------------|-------------------|----------------|
|                                | Market Value \$      | %            | QTR            | FYTD         | 1 YR         | 3 YR         | 5 YR         | Inception   |                   |                |
| <b>Total Fund Composite</b>    | <b>2,037,993,984</b> | <b>100.0</b> | <b>3.56</b>    | <b>14.48</b> | <b>14.48</b> | <b>6.78</b>  | <b>9.18</b>  | <b>5.29</b> | <b>01/01/2001</b> |                |
| Total Fund Policy Index        |                      |              | 3.25           | 13.94        | 13.94        | 7.10         | 8.69         | 5.55        |                   |                |
| <b>Total Equity Composite</b>  | <b>1,175,657,926</b> | <b>57.7</b>  | <b>6.11</b>    | <b>22.92</b> | <b>22.92</b> | <b>10.26</b> | <b>14.29</b> | <b>7.56</b> | <b>01/01/1998</b> |                |
| Total Equity Policy Index      |                      |              | 5.59           | 19.91        | 19.91        | 10.68        | 14.81        | 7.47        |                   |                |
| <b>Domestic Equity</b>         |                      |              |                |              |              |              |              |             |                   |                |
| Barrow LCV                     | 157,895,468          | 7.7          | 5.94           | 14.89        | 14.89        | 8.78         | 13.79        | 7.54        | 01/01/2006        |                |
| Russell 1000 Value Index       |                      |              | 5.33           | 13.66        | 13.66        | 8.65         | 14.04        | 7.66        |                   |                |
| Lazard Equity                  | 114,986,782          | 5.6          | 4.64           | 18.05        | 18.05        | 9.63         | N/A          | 12.89       | 07/01/2013        |                |
| S&P 500 Index                  |                      |              | 6.64           | 21.83        | 21.83        | 11.41        | 15.79        | 14.35       |                   |                |
| State Street Flagship Index Fd | 246,119,384          | 12.1         | 6.65           | 21.83        | 21.83        | 11.44        | 15.81        | 8.25        | 04/01/2005        |                |
| S&P 500 Index                  |                      |              | 6.64           | 21.83        | 21.83        | 11.41        | 15.79        | 8.88        |                   |                |
| Dodge & Cox Stock Fund         | 164,031,933          | 8.0          | 5.75           | 18.32        | 18.32        | 11.08        | 16.29        | 7.92        | 01/01/2006        |                |
| Russell 1000 Value Index       |                      |              | 5.33           | 13.66        | 13.66        | 8.65         | 14.04        | 7.66        |                   |                |
| Wellington Equity              | 271,217,792          | 13.3         | 8.21           | 35.80        | 35.80        | 14.58        | 18.13        | 7.71        | 01/01/1998        |                |
| Russell 1000 Growth Index      |                      |              | 7.86           | 30.21        | 30.21        | 13.79        | 17.33        | 6.87        |                   |                |
| Congress Equity                | 33,427,145           | 1.6          | 3.63           | 16.88        | 16.88        | 10.27        | N/A          | 14.30       | 07/01/2013        |                |
| Russell Midcap Growth Index    |                      |              | 6.81           | 25.27        | 25.27        | 10.30        | 15.30        | 13.63       |                   |                |
| New South Capital Equity       | 46,225,485           | 2.3          | 3.27           | 10.74        | 10.74        | 5.80         | N/A          | 9.69        | 07/01/2013        |                |
| Russell 2500 Index             |                      |              | 5.24           | 16.81        | 16.81        | 10.07        | 14.33        | 12.41       |                   |                |





## Arkansas LOPFI Retirement System

### Performance Evaluation Summary (Net Returns)

All calculations are time-weighted based on the market values and trade date of each transaction received from the bank.  
December 31, 2017 (Continued)

|   | Allocation         |             | Performance(%) |             |             |             |             |             |                   | Inception Date |
|---|--------------------|-------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------------|----------------|
|   | Market Value \$    | %           | QTR            | FYTD        | 1 YR        | 3 YR        | 5 YR        | Inception   |                   |                |
| <b>International Equity</b>                         |                    |             |                |             |             |             |             |             |                   |                |
| Global Currents Intl Eq/Clearbridge                 | 30,367,211         | 1.7         | 1.80           | 4.27        | 4.27        | -2.70       | 7.45        | 4.07        | 04/01/2005        |                |
| MSCI EAFE Index                                     |                    |             | -0.68          | 1.51        | 1.51        | -1.15       | 7.02        | 4.27        |                   |                |
| Fisher Intl Eq                                      | 32,336,443         | 1.9         | -1.69          | 1.32        | 1.32        | -1.06       | 5.91        | 5.58        | 01/01/2002        |                |
| MSCI EAFE Index                                     |                    |             | -0.68          | 1.51        | 1.51        | -1.15       | 7.02        | 5.75        |                   |                |
| Fisher Emerging Mkts                                | 25,402,000         | 1.5         | -6.86          | 4.60        | 4.60        | -1.75       | N/A         | 1.58        | 07/01/2013        |                |
| MSCI Emerging Markets Index                         |                    |             | -4.08          | 11.60       | 11.60       | -2.19       | 1.65        | 0.27        |                   |                |
| Wellington International Growth                     | 19,764,616         | 1.1         | -8.81          | N/A         | N/A         | N/A         | N/A         | -2.72       | 04/01/2016        |                |
| MSCI AC World Index Growth                          |                    |             | -2.27          | 3.66        | 3.66        | 3.79        | 10.12       | 3.87        |                   |                |
| <b>Total Fixed Income Composite</b>                 | <b>488,906,444</b> | <b>28.2</b> | <b>-2.67</b>   | <b>3.15</b> | <b>3.15</b> | <b>2.40</b> | <b>2.46</b> | <b>4.61</b> | <b>01/01/1998</b> |                |
| Total Fixed Income Policy Index                     |                    |             | -4.29          | 2.47        | 2.47        | 1.68        | 1.32        | 4.76        |                   |                |
| PIMCO Interm Fixed Inc.                             | 180,268,330        | 10.4        | -2.46          | 2.60        | 2.60        | 2.66        | 3.21        | 4.67        | 10/01/2002        |                |
| Bloomberg Barclays Intermed Aggregate Index         |                    |             | -2.05          | 1.97        | 1.97        | 2.43        | 1.95        | 3.91        |                   |                |
| WAMCO Agg Fixed Inc.                                | 112,737,767        | 6.5         | -2.78          | 3.51        | 3.51        | 3.93        | 3.17        | 4.09        | 10/01/2002        |                |
| Bloomberg Barclays U.S. Aggregate Index             |                    |             | -2.98          | 2.65        | 2.65        | 3.03        | 2.23        | 4.23        |                   |                |
| GHA Fixed Income                                    | 98,872,284         | 5.7         | -1.47          | 3.06        | 3.06        | 2.89        | 3.76        | 4.97        | 04/01/2005        |                |
| Bloomberg Barclays U.S. Aggregate Index             |                    |             | -2.98          | 2.65        | 2.65        | 3.03        | 2.23        | 4.32        |                   |                |
| WAMCO High Yield                                    | 29,579,132         | 1.7         | 2.10           | 8.81        | 8.81        | -1.02       | N/A         | -1.02       | 01/01/2014        |                |
| BofA Merrill Lynch 0-5 Year U.S. HY Constrained Inc |                    |             | 2.43           | 16.15       | 16.15       | 3.72        | 6.58        | 3.72        |                   |                |
| Aberdeen Intl Fixed Inc.                            | 67,448,932         | 3.9         | -6.43          | 1.78        | 1.78        | 0.15        | -0.84       | 3.85        | 01/01/1998        |                |
| Citigroup Non-U.S. World Government Bond            |                    |             | -10.84         | 1.81        | 1.81        | -2.18       | -1.94       | 4.04        |                   |                |



# Arkansas LOPFI Retirement System

## Performance Evaluation Summary (Net Returns)

All calculations are time-weighted based on the market values and trade date of each transaction received from the bank.  
December 31, 2017 (Continued)

| Alternatives  | Allocation      |     | Performance(%) |                |                |                |                |                |            |  | Inception Date |
|---|-----------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|------------|--|----------------|
|   | Market Value \$ | %   | QTR            | FYTD           | 1 YR           | 3 YR           | 5 YR           | Inception      |            |  |                |
| JP Morgan RE<br>NCREIF Property Index                                 | 24,972,586      | 1.2 | 1.55<br>1.80   | 6.16<br>6.96   | 6.16<br>6.96   | 9.14<br>9.38   | 10.43<br>10.19 | 4.77<br>6.26   | 10/01/2007 |  |                |
| Chickasaw Capital<br>Alerian MLP Index                                | 18,800,952      | 0.9 | -0.15<br>-0.95 | -8.54<br>-6.52 | -8.54<br>-6.52 | -9.61<br>-9.33 | 5.43<br>-0.06  | 11.73<br>5.04  | 07/01/2010 |  |                |
| Citico<br>HFRI Event-Driven (Total) Index                             | 7,416,820       | 0.4 | -17.10<br>1.97 | -14.22<br>7.64 | -14.22<br>7.64 | -10.49<br>4.71 | -3.34<br>5.48  | -1.29<br>4.30  | 04/01/2011 |  |                |
| Citigroup-StepStone Private Equity<br>LPX MM Private Equity Index ETF | 3,439,821       | 0.2 | 12.51<br>1.15  | 16.95<br>24.02 | 16.95<br>24.02 | -3.09<br>11.48 | 12.43<br>10.22 | 5.91<br>4.43   | 10/01/2007 |  |                |
| Wellington Commodities<br>Bloomberg Commodity Index Total Return      | 16,381,155      | 0.8 | 2.51<br>4.71   | 4.03<br>1.70   | 4.03<br>1.70   | N/A<br>-5.04   | N/A<br>-8.45   | 9.35<br>7.34   | 04/01/2016 |  |                |
| JP Morgan Infrastructure<br>S&P Global Infrastructure                 | 7,246,583       | 0.4 | 5.99<br>1.86   | 12.87<br>20.13 | 12.87<br>20.13 | 5.56<br>6.14   | 5.39<br>9.21   | 4.24<br>9.67   | 01/01/2009 |  |                |
| Macquarie Infrastructure<br>S&P Global Infrastructure                 | 8,654,374       | 0.4 | 2.22<br>1.86   | 2.68<br>20.13  | 2.68<br>20.13  | 3.87<br>6.14   | 5.76<br>9.21   | 4.60<br>9.67   | 01/01/2009 |  |                |
| NB Crossroads<br>LPX MM Private Equity Index ETF                      | 1,936,346       | 0.1 | 8.40<br>1.15   | 13.43<br>24.02 | 13.43<br>24.02 | N/A<br>11.48   | N/A<br>10.22   | 13.62<br>20.19 | 05/01/2016 |  |                |
| NB Private Debt<br>S&P/LSTA Leveraged Loan Index                      | 11,675,599      | 0.6 | 3.16<br>1.11   | -4.10<br>4.12  | -4.10<br>4.12  | 1.28<br>4.44   | 12.20<br>4.03  | 7.00<br>4.48   | 07/01/2007 |  |                |
| PIMCO Bravo I<br>S&P/LSTA Leveraged Loan Index                        | 666,344         | 0.0 | 8.58<br>1.11   | -35.69<br>4.12 | -35.69<br>4.12 | N/A<br>4.44    | N/A<br>4.03    | -6.87<br>6.32  | 05/01/2016 |  |                |
| PIMCO Bravo II<br>S&P/LSTA Leveraged Loan Index                       | 11,938,994      | 0.6 | 4.99<br>1.11   | 14.16<br>4.12  | 14.16<br>4.12  | 9.80<br>4.44   | 14.14<br>4.03  | 15.03<br>4.25  | 04/01/2011 |  |                |
| PIMCO Bravo III<br>S&P/LSTA Leveraged Loan Index                      | 1,552,238       | 0.1 | 1.93<br>1.11   | 12.10<br>4.12  | 12.10<br>4.12  | N/A<br>4.44    | N/A<br>4.03    | 8.21<br>4.78   | 11/01/2016 |  |                |
| KKR Mezzanine<br>S&P/LSTA Leveraged Loan Index                        | 4,165,286       | 0.2 | 0.12<br>1.11   | 4.01<br>4.12   | 4.01<br>4.12   | -2.07<br>4.44  | 3.79<br>4.03   | -9.21<br>4.75  | 10/01/2010 |  |                |
| KKR Direct Lending<br>S&P/LSTA Leveraged Loan Index                   | 4,668,391       | 0.2 | -11.07<br>1.11 | 1.20<br>4.12   | 1.20<br>4.12   | N/A<br>4.44    | N/A<br>4.03    | 5.22<br>6.32   | 05/01/2016 |  |                |



## Arkansas LOPFI Retirement System

### Performance Evaluation Summary (Net Returns)

All calculations are time-weighted based on the market values and trade date of each transaction received from the bank.  
December 31, 2017 (Concluded)

|   | Allocation      |     | Performance(%) |                |                |              |              |              |                | Inception Date |
|---|-----------------|-----|----------------|----------------|----------------|--------------|--------------|--------------|----------------|----------------|
|   | Market Value \$ | %   | QTR            | FYTD           | 1 YR           | 3 YR         | 5 YR         | Inception    |                |                |
| KKR Energy Income & Growth<br>LPX MM Private Equity Index ETF         | 12,327,379      | 0.6 | -15.71<br>1.15 | 15.90<br>24.02 | 15.90<br>24.02 | N/A<br>11.48 | N/A<br>10.22 | N/A<br>20.19 | -6.32<br>20.19 | 05/01/2016     |
| AIM Thirteen Partners Equity Offshore<br>HFRX Global Hedge Fund Index | 25,505,285      | 1.3 | 2.05<br>1.50   | 10.08<br>5.99  | 10.08<br>5.99  | 3.57<br>1.54 | 5.59<br>2.12 | 5.04<br>1.91 | 5.04<br>1.91   | 04/01/2012     |
| AIM Thirteen Partners Equity<br>LPX MM Private Equity Index ETF       | 24,991,263      | 1.2 | 1.55<br>1.15   | 3.41<br>24.02  | 3.41<br>24.02  | N/A<br>11.48 | N/A<br>10.22 | N/A<br>20.19 | 2.47<br>20.19  | 06/01/2016     |
| Goldtree Select Offshore<br>HFRI RV: Fixed Income-Corporate Index     | 21,897,993      | 1.1 | -0.24<br>1.65  | 4.67<br>6.63   | 4.67<br>6.63   | N/A<br>5.31  | N/A<br>4.56  | 7.46<br>9.10 | 7.46<br>9.10   | 05/01/2016     |
| Owl Rock Direct Lending<br>S&P/LSTA Leveraged Loan Index              | 6,594,108       | 0.3 | 2.88<br>1.11   | 9.75<br>4.12   | 9.75<br>4.12   | N/A<br>4.44  | N/A<br>4.03  | 7.37<br>5.49 | 7.37<br>5.49   | 09/01/2016     |
| Goldman Sachs Vintage VII<br>LPX MM Private Equity Index ETF          | 3,580,388       | 0.2 | 0.01<br>1.15   | N/A<br>24.02   | N/A<br>24.02   | N/A<br>11.48 | N/A<br>10.22 | N/A<br>20.19 | 0.01<br>6.41   | 08/01/2017     |
| Liquidation (Cash)  | 105,299,578     | 5.2 |                |                |                |              |              |              |                |                |



# Arkansas LOPFI Retirement System

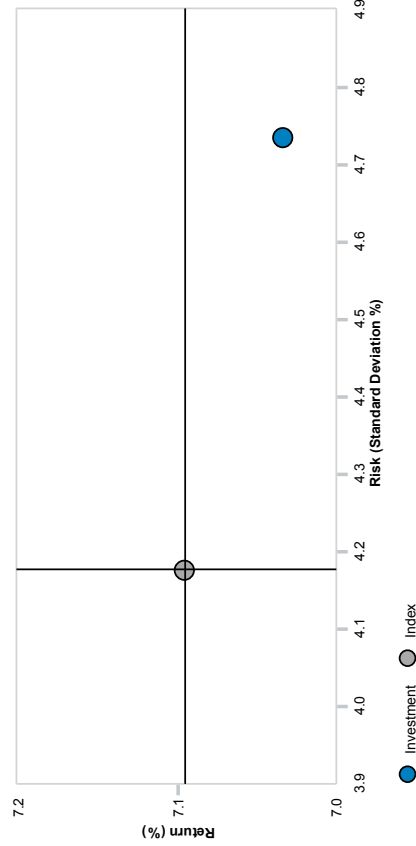
## Total Fund Trailing 5-Years

December 31, 2017

### Historical Statistics 3 Years

|            | Return | Standard Deviation | Sharpe Ratio | Up Market Capture | Up Quarters | Down Market Capture | Down Quarters |
|------------|--------|--------------------|--------------|-------------------|-------------|---------------------|---------------|
| Investment | 7.03   | 4.74               | 1.42         | 102.94            | 10          | 120.37              | 2             |
| Index      | 7.10   | 4.18               | 1.62         | 100.00            | 11          | 100.00              | 1             |

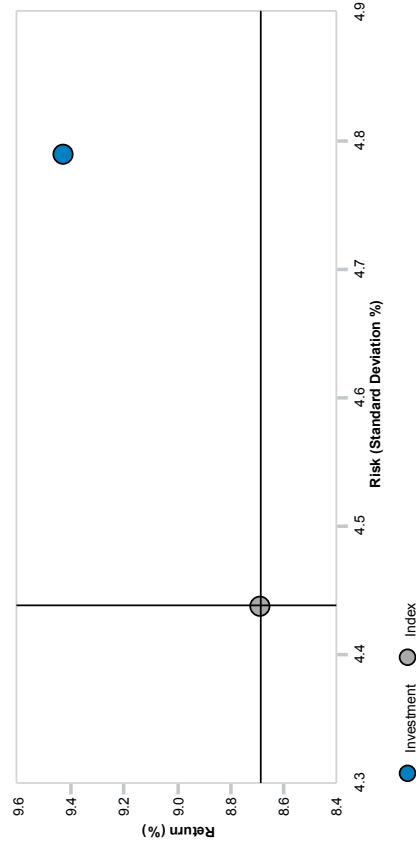
### Risk and Return 3 Years



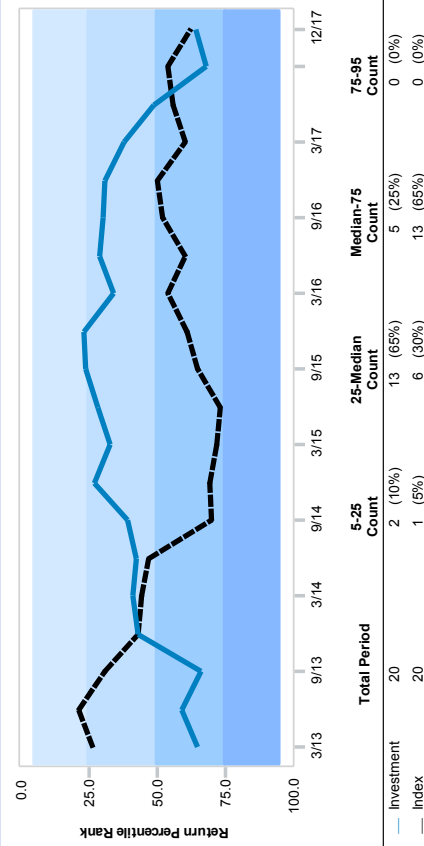
### Historical Statistics 5 Years

|            | Return | Standard Deviation | Sharpe Ratio | Up Market Capture | Up Quarters | Down Market Capture | Down Quarters |
|------------|--------|--------------------|--------------|-------------------|-------------|---------------------|---------------|
| Investment | 9.43   | 4.79               | 1.88         | 105.80            | 18          | 86.49               | 2             |
| Index      | 8.69   | 4.44               | 1.88         | 100.00            | 18          | 100.00              | 2             |

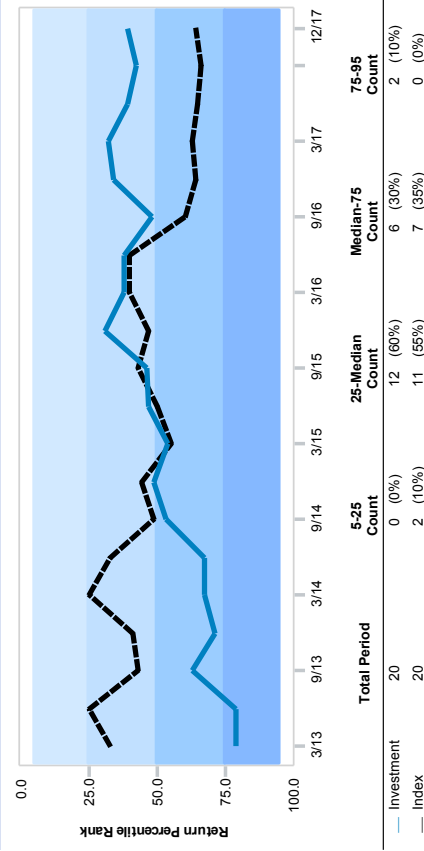
### Risk and Return 5 Years



### 3 Year Rolling Percentile Rank All Public Plans-Total Fund



### 5 Year Rolling Percentile Rank All Public Plans-Total Fund

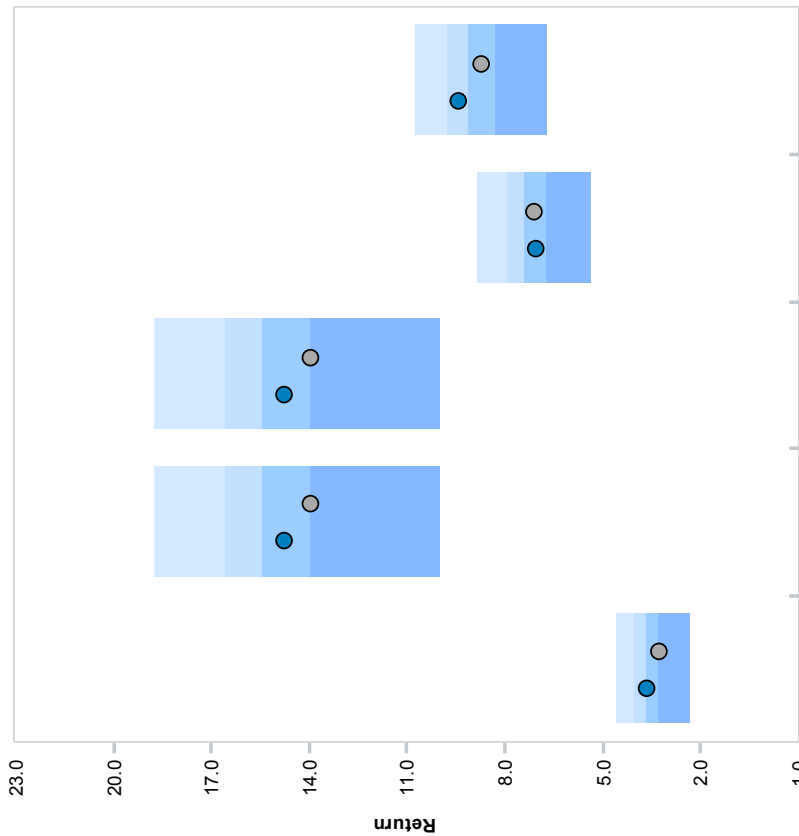


# Arkansas LOPFI Retirement System

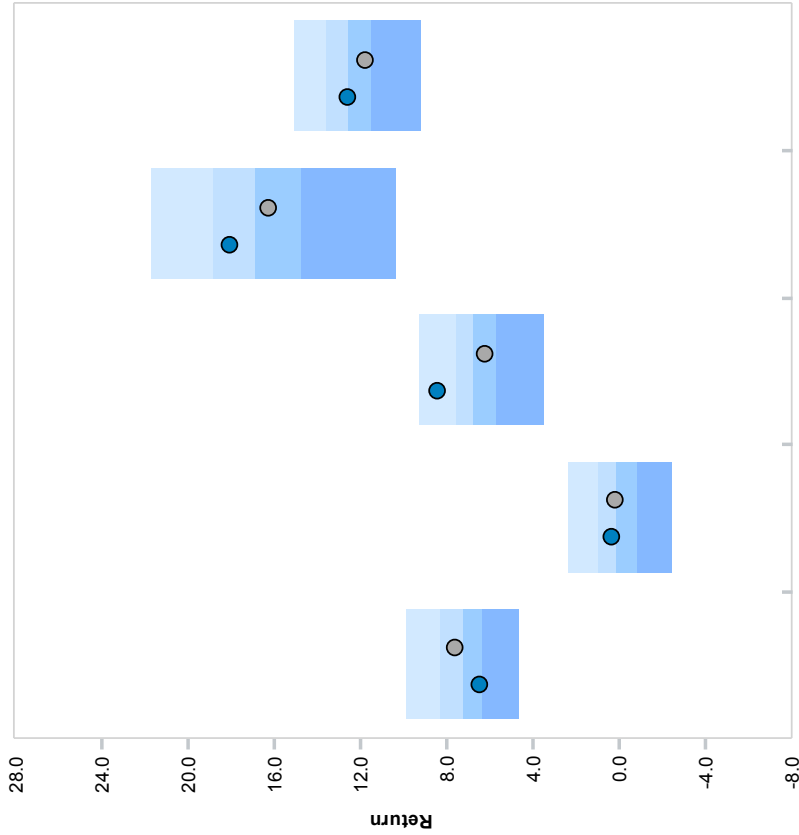
Total Fund Trailing 5-Years

December 31, 2017

Peer Group Analysis - All Public Plans-Total Fund



Peer Group Analysis - All Public Plans-Total Fund



## Comparative Performance

|            | 1 Qtr Ending Sep-2017 | 1 Qtr Ending Jun-2017 | 1 Qtr Ending Mar-2017 | 1 Qtr Ending Dec-2016 | 1 Qtr Ending Sep-2016 | 1 Qtr Ending Jun-2016 |
|------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Investment | 3.39 (58)             | 2.78 (66)             | 4.24 (64)             | 0.89 (47)             | 3.08 (66)             | 2.43 (19)             |
| Index      | 3.18 (73)             | 3.01 (45)             | 3.83 (82)             | 0.52 (62)             | 3.23 (58)             | 1.94 (48)             |
| Median     | 3.46                  | 2.99                  | 4.43                  | 0.80                  | 3.39                  | 1.90                  |



**ARKANSAS LOPFI RETIREMENT SYSTEM**

**TOTAL ANNUAL RETURNS 2013 - 2017 (Net of Investment Management Fees beginning 2008)**  
*(AndCo's calculations are time-weighted and based on the trade date of all transactions)*

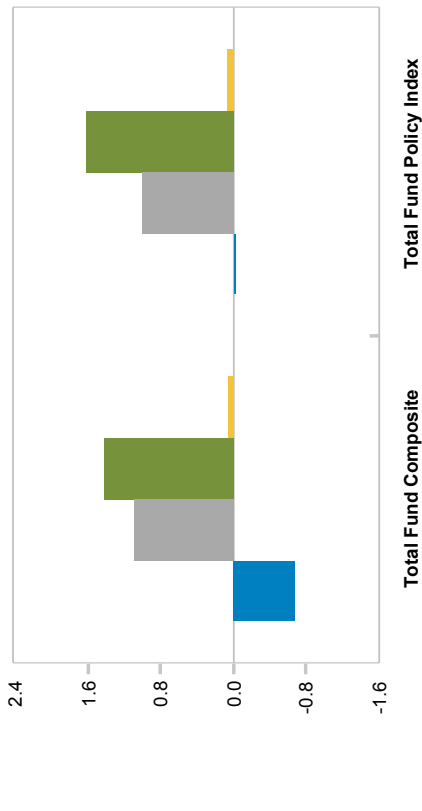
| Manager                         | Annual Return |         |         |         |         | 5 Years Annualized<br>(Shorter periods as<br>indicated) |
|---------------------------------|---------------|---------|---------|---------|---------|---|
|                                 | 2013          | 2014    | 2015    | 2016    | 2017    |   |
| Wellington                      | 36.81%        | 11.91%  | 10.29%  | 0.43%   | 35.80%  | 18.13%  |
| Barrow Hanley                   | 32.12%        | 12.17%  | -1.68%  | 13.95%  | 14.89%  | 13.79%  |
| Fisher International            | 17.14%        | -2.94%  | -1.50%  | 1.32%   | 28.68%  | 7.86%   |
| PIMCO                           | -1.92%        | 2.70%   | 2.68%   | 2.60%   | 5.13%   | 2.21%   |
| WAMCO                           | -2.41%        | 7.73%   | 0.65%   | 3.51%   | 4.78%   | 2.79%   |
| Aberdeen                        | -5.68%        | 3.72%   | -4.85%  | 1.78%   | 8.07%   | 0.48%   |
| SSGA Index Plus                 | 32.39%        | 13.68%  | 1.42%   | 11.96%  | 21.83%  | 15.81%  |
| Clearbridge Intl. Eq.           | 28.50%        | -8.16%  | -3.81%  | 4.27%   | 23.37%  | 7.86%   |
| GHA                             | 1.09%         | 4.40%   | 1.25%   | 3.06%   | 1.98%   | 2.35%   |
| Dodge & Cox                     | 40.55%        | 10.40%  | -4.49%  | 21.28%  | 18.32%  | 16.29%  |
| N.B. Private Debt               | 14.71%        | 49.19%  | 0.60%   | 7.68%   | 13.43%  | 12.20%  |
| Citigroup Private Equity        | 47.24%        | 34.06%  | 22.11%  | -36.28% | 16.95%  | 12.43%  |
| JP Morgan R.E.                  | 14.79%        | 10.06%  | 12.99%  | 8.39%   | 6.16%   | 10.43%  |
| JP Morgan Infrastructure        | 6.47%         | 3.83%   | 0.31%   | 3.90%   | 12.87%  | 5.39%   |
| Macquarie Infrastructure        | 64.25%        | -28.13% | -1.69%  | 11.02%  | 2.68%   | 5.76%   |
| Chickasaw                       | 45.54%        | 21.21%  | -36.86% | 27.88%  | -8.54%  | 5.43%   |
| KKR Mezzanine Partners          | 17.18%        | 9.46%   | -7.39%  | -2.50%  | 4.01%   | 3.79%   |
| CITCO                           | -23.28%       | 20.45%  | -4.21%  | -12.72% | -14.22% | -3.34%  |
| PIMCO Bravo II                  | 26.51%        | 15.67%  | 6.31%   | 9.09%   | 14.16%  | 14.14%  |
| AIM 13 Partners Offshore        | 14.25%        | 3.43%   | -1.72%  | 2.68%   | 10.08%  | 5.59%   |
| Congress                        |               | 12.83%  | 1.23%   | 13.32%  | 16.88%  | 14.30%  |
| Fisher Emerging Markets         |               | 1.07%   | -10.30% | 4.60%   | 38.07%  | 8.75%   |
| Lazard                          |               | 11.61%  | 1.03%   | 10.46%  | 18.05%  | 12.89%  |
| New South Capital               |               | 10.61%  | -1.22%  | 8.26%   | 10.74%  | 9.69%   |
| WAMCO High Yield                |               | -2.01%  | -9.04%  | 8.81%   | 4.91%   | 0.43%   |
| Wellington International Growth |               |         |         |         | 37.15%  | 17.91%  |
| Wellington Commodities          |               |         |         |         | 4.03%   | 9.35%   |
| N.B. Crossroads                 |               |         |         |         | 13.43%  | 13.62%  |
| PIMCO Bravo I                   |               |         |         |         | -35.69% | -6.87%  |
| PIMCO Bravo III                 |               |         |         |         | 12.10%  | 8.21%   |
| KKR Direct Lending              |               |         |         |         | 1.20%   | 5.22%   |
| KKR Energy Income & Growth      |               |         |         |         | 15.90%  | -6.32%  |
| AIM 13 Partners Equity          |               |         |         |         | 3.41%   | 2.47%   |
| Goldentree Select Offshore      |               |         |         |         | 4.67%   | 7.46%   |
| Owl Rock Direct Lending         |               |         |         |         | 9.75%   | 7.37%   |
| Goldman Sachs Vintage VII       |               |         |         |         | N/A     | 5 months  |
| <b>TOTAL FUND</b>               | 17.76%        | 8.16%   | 0.10%   | 6.25%   | 14.48%  | 9.18%   |

# Arkansas LOPFI Retirement System

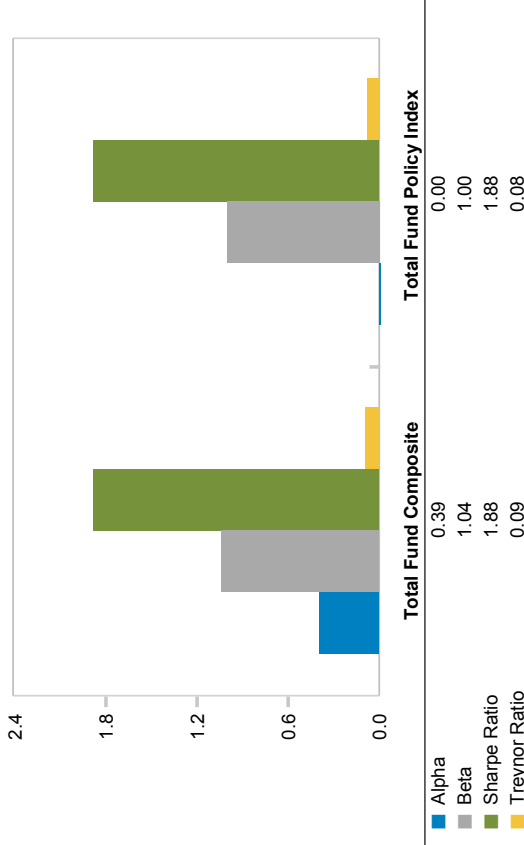
## Index Comparison

December 31, 2017

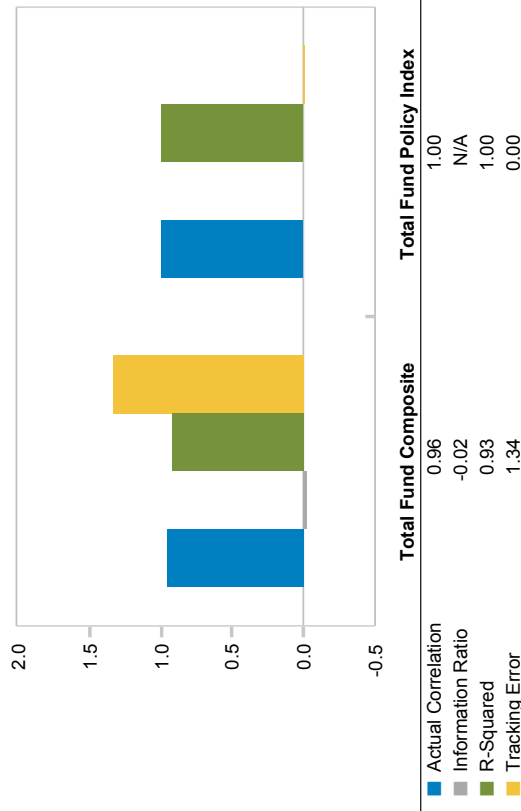
Risk / Reward Historical Statistics 3 Years Ending December 31, 2017



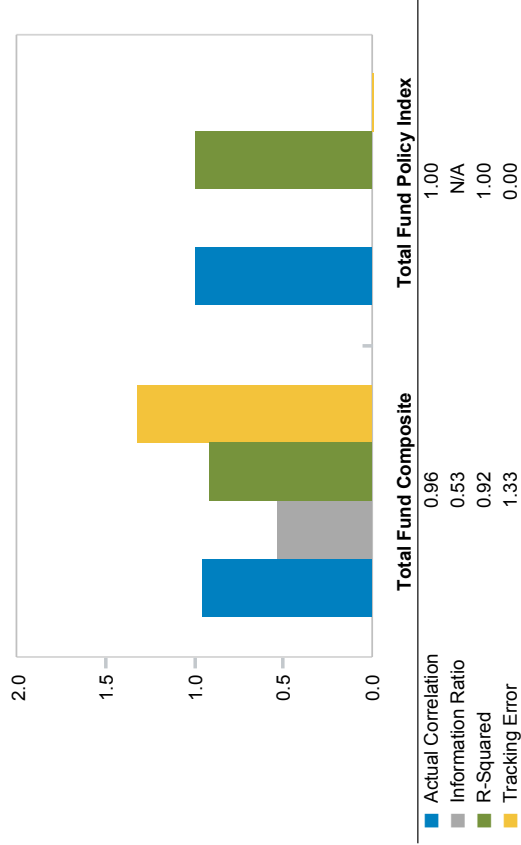
Risk / Reward Historical Statistics 5 Years Ending December 31, 2017



Benchmark Relative Historical Statistics 3 Years Ending December 31, 2017



Benchmark Relative Historical Statistics 5 Years Ending December 31, 2017



Benchmark: Total Fund Policy Index







## Arkansas LOPFI Retirement System

### Schedule of Investment Expenses

As of December 31, 2017

| Professional / Consultant                                     | Nature of Service     | Amount              |
|---|-----------------------|---------------------|
| Aberdeen Asset - International Fixed Income                   | Money Manager         | \$ 249,514          |
| Barrow, Hanley - Large Cap Value - Equity                     | Money Manager         | \$ 447,331          |
| Chickasaw   | Money Manager         | \$ 167,321          |
| ClearBridge (formerly Global Currents) - International Equity | Money Manager         | \$ 208,428          |
| Congress - Mid Cap Growth - Equity                            | Money Manager         | \$ 146,565          |
| Fisher Investments - International Equity*                    | Money Manager         | \$ 262,125          |
| Fisher Investments - Emerging Markets Equity*                 | Money Manager         | \$ 58,812           |
| Garcia Hamilton - Core Fixed Income                           | Money Manager         | \$ 214,608          |
| JP Morgan**   | Money Manager         | \$ 179,975          |
| JP Morgan IIF - Tax Exempt**                                  | Money Manager         | \$ 50,691           |
| KKR EIGF  | Money Manager         | \$ 225,000          |
| KKR MP  | Money Manager         | \$ 45,119           |
| KKR LP  | Money Manager         | \$ 52,207           |
| Lazard - Large Cap Equity                                     | Money Manager         | \$ 542,907          |
| New South - Small/Mid Cap Value - Equity                      | Money Manager         | \$ 415,031          |
| State Street - Large Cap Core Equity*                         | Money Manager         | \$ 67,731           |
| Thirteen Partners Offshore, Ltd.                              | Money Manager         | \$ 193,461          |
| Thirteen Partners Private Equity A, LLC                       | Money Manager         | \$ 265,954          |
| PIMCO Bravo Fund Onshore Feeder I                             | Money Manager         | \$ 13,567           |
| PIMCO Bravo Fund Onshore Feeder II                            | Money Manager         | \$ 153,334          |
| PIMCO Bravo Fund III Onshore Feeder TE                        | Money Manager         | \$ 10,652           |
| WAMCO - Aggregate Fixed Income/ High Yield                    | Money Manager         | \$ 769,570          |
| Western Asset - Short Term/High Yield                         | Money Manager         | \$ 122,748          |
| Wellington - Large Cap Growth - Equity                        | Money Manager         | \$ 965,171          |
| Wellington - International Growth - Equity                    | Money Manager         | \$ 182,844          |
| Wellington - Commodities                                      | Money Manager         | <u>\$ 119,152</u>   |
| <b>Total Investment Fees</b>                                  |                       | <u>\$ 6,129,818</u> |
| Regions Bank  | Custodial Service     | <u>\$ 216,000</u>   |
| Stephens  | Investment Consultant | <u>\$ 680,000</u>   |
| AndCo Consulting  | Investment Monitoring | <u>\$ 189,000</u>   |
| Grand Total   |                       | <b>\$ 7,214,818</b> |
| MV of Fund @ 12/31/2017                                       |                       | \$ 2,037,993,984    |
| Grand Total as a % of the 12/31/2017 MV                       |                       | <b>0.35%</b>        |

\* Fee calculated based on 12 months custodial statement.

\*\* Fees provided by the money manager as of 9/30/2017

Arkansas Local Police & Fire Retirement System

Schedule of Broker Commissions

Year Ending December 31, 2017

| Brk#  | Broker Name                       | Broker Commissions | Gross Price of Assets |
|-------|-----------------------------------|--------------------|-----------------------|
| 13    | SANFORD C. BERNSTEIN AND CO., LLC | \$13,078           | \$38,198,746          |
| 161   | MERRILL LYNCH, PIERCE, FENNER and | \$2,386            | \$6,744,724           |
| 19    | JEFFERIES and CO, INC             | \$391              | \$784,209             |
| 226   | NATIONAL FINANCIAL SVCS LLC       | \$7,828            | \$9,780,460           |
| 235   | RBC DAIN RAUSCHER INC             | \$6,517            | \$3,361,229           |
| 352   | JP MORGAN CLEARING CORP           | \$56,036           | \$163,125,540         |
| 355   | CREDIT SUISSE FIRST BOSTON LLC    | \$15,745           | \$191,682,735         |
| 418   | CITIGROUP GLOBAL MARKETS INC.     | \$106,604          | \$139,592,650         |
| 45    | HARRIS NESBITT CORP               | \$54,189           | \$62,532,279          |
| 46171 | WELLS FARGO SECURITIES LLC        | \$29,628           | \$12,552,584          |
| 5     | GOLDMAN SACHS and CO              | \$196,716          | \$345,829,984         |
| 50    | MORGAN STANLEY                    | \$43,865           | \$102,573,777         |
| 53312 | VIRTU AMERICAS LLC                | \$188              | \$1,186,650           |
| 547   | ROBERT BAIRD                      | \$23,068           | \$22,373,808          |
| 57079 | J.P. MORGAN SECURITIES INC.       | \$38,917           | \$235,156,384         |
| 571   | OPPENHEIMER AND CO INC            | \$8,672            | \$31,653,443          |
| 573   | DEUTSCHE BANK SECURITIES, INC.    | \$52,701           | \$206,502,392         |
| 58498 | IMPERIAL CAPITAL LLC              | \$30,400           | \$66,131,448          |
| 58851 | BTIG LLC                          | \$31,124           | \$39,499,763          |
| 59055 | CAP INSTITUTIONAL SERVICES INC    | \$1,631            | \$2,745,086           |
| 59964 | BLOOMBERG TRADEBOOK LLC           | \$41               | \$251,630             |
| 61610 | BARCLAYS CAPITAL LE               | \$127,673          | \$361,060,419         |
| 6164  | INVESTMENT TECHNOLOGY GROUP, INC  | \$7,858            | \$47,369,871          |
| 62465 | KNIGHT EQUITY MARKETS LP          | \$3,115            | \$24,887,900          |
| 62513 | COWEN AND COMPANY LLC             | \$540              | \$509,649             |
| 62519 | STRATEGAS SECURITIES LLC          | \$77,672           | \$57,186,673          |
| 63646 | Longbow Securities                | \$9,842            | \$21,030,620          |
| 642   | UBS SECURITIES LLC                | \$294,501          | \$519,915,039         |
| 65544 | B. RILEY & CO.                    | \$6,129            | \$38,597,027          |
| 67    | INSTINET CORPORATION              | \$299              | \$125,647             |
| 67526 | KEYBANC CAPITAL MARKETS INC       | \$381              | \$262,769             |
| 6826  | INSTINET                          | \$33,268           | \$136,639,792         |
| 69400 | LIQUIDNET INC                     | \$66,868           | \$141,554,311         |
| 696   | CANTOR FITZGERALD AND CO.         | \$3,185            | \$2,601,637           |
| 69714 | WUNDERLICH SECURITIES INC         | \$450              | \$626,046             |
| 70069 | CLSA AMERICAS                     | \$18,371           | \$42,891,331          |
| 725   | RAYMOND JAMES and ASSOC. INC.     | \$42,888           | \$48,877,995          |
| 750   | STERNE , AGEE and LEACH, INC      | \$545              | \$350,582             |
| 76099 | MACQUARIE SECURITIES INC          | \$200              | \$770,702             |
| 771   | BLAIR WILLIAM and COMPANY         | \$8,902            | \$30,826,716          |
| 77734 | WINSLOW EVAN AND CROCKER          | \$78               | \$253,717             |
| 793   | STIFEL, NICOLAUS AND CO.,INC.     | \$72,759           | \$109,298,118         |
| 83213 | ISI GROUP, INC                    | \$136,705          | \$268,714,859         |
| 83620 | FIDELITY CAP MARKETS (DIV OF N    | \$4,883            | \$17,386,021          |

Arkansas Local Police & Fire Retirement System  
Schedule of Broker Commissions  
Year Ending December 31, 2017

| Brk#  | Broker Name             | Broker Commissions | Gross Price of Assets |
|-------|-------------------------|--------------------|-----------------------|
| 84341 | CITATION GROUP/BCC CLRG | \$28,330           | \$84,106,056          |
| 9883  | WEEDEN AND CO.          | \$143,404          | \$613,998,937         |
|       | TOTAL                   | \$1,808,570        | \$4,252,101,954       |

# Arkansas LOPFI Retirement System

## Highest Portfolio Holdings by Manager

### Top Three Securities

As of December 31, 2017

|                 | FISHER ADR             | BARROW, HANLEY          | CONGRESS               | GARCIA HAMILTON            | LAZARD                      | NEW SOUTH                    | STATE STREET S&P 500      | DODGE & COX                | WELLINGTON EQUITY        |
|-----------------|------------------------|-------------------------|------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|----------------------------|--------------------------|
|                 | TECENT HOLDINGS LTD    |                         |                        |                            |                             |                              |                           |                            |                          |
| 1               | UNSPONSOR ADR          | BP PLC ADR              | AVERY DENNISON CORP    | UNITED STATES TREASURY     | ALPHABET INC A              | OPEN TEXT CORP               | APPLE INC                 | SCHWAB (CHARLES) CORP      | ALPHABET                 |
|                 | N/A                    | N/A                     | N/A                    | 5/15/2025                  | N/A                         | N/A                          | N/A                       | N/A                        | N/A                      |
| Maturity        | \$1,873,014            | \$5,534,384             | \$1,148,600            | \$18,939,589               | \$5,111,096                 | \$3,138,960                  | \$9,352,537               | \$6,561,277                | \$16,490,042             |
| Market Value    | \$213,031              | \$5,286,418             | \$821,041              | \$19,230,384               | \$2,974,313                 | \$1,575,126                  | N/A                       | N/A                        | N/A                      |
| Book Value      | 4.50%                  | 3.60%                   | 3.30%                  | 15.04%                     | 4.40%                       | 6.80%                        | 3.80%                     | 4.00%                      | 6.08%                    |
| Percent of Fund |                        |                         |                        |                            |                             |                              |                           |                            |                          |
| 2               | ASML HOLDINGS          | WELLS FARGO & CO.       | CARTER'S INC           | UNITED STATES TREASURY DTD | MICROSOFT                   | THERMO FISHER SCIENTIFIC INC | MICROSOFT                 | CAPITAL ONE FINANCIAL CORP | FACEBOOK                 |
|                 | N/A                    | N/A                     | N/A                    | 2/15/2026                  | N/A                         | N/A                          | N/A                       | N/A                        | N/A                      |
| Maturity        | \$1,742,893            | \$5,527,279             | \$1,045,661            | \$9,023,797                | \$4,619,160                 | \$2,772,248                  | \$7,137,462               | \$6,233,213                | \$12,421,775             |
| Market Value    | \$507,769              | \$3,327,958             | \$691,122              | \$873,873                  | \$2,527,982                 | \$1,202,235                  | N/A                       | N/A                        | N/A                      |
| Book Value      | 4.19%                  | 3.60%                   | 3.00%                  | 7.17%                      | 4.00%                       | 6.00%                        | 2.90%                     | 3.80%                      | 4.58%                    |
| Percent of Fund |                        |                         |                        |                            |                             |                              |                           |                            |                          |
| 3               | TAIWAN SEMICONDUCTOR   | JPMORGAN CHASE & CO.    | PVH CORP               | UNITED STATES TREASURY DTD | CITIGROUP                   | AEROJET ROCKETDYNE           | AMAZON                    | WELLS FARGO & CO.          | APPLE INC                |
|                 | N/A                    | N/A                     | N/A                    | 2/15/2025                  | N/A                         | N/A                          | N/A                       | N/A                        | N/A                      |
| Maturity        | \$1,628,147            | \$5,507,410             | \$1,029,075            | \$7,179,316                | \$4,546,078                 | \$2,741,388                  | \$4,922,388               | \$6,315,229                | \$11,662,365             |
| Market Value    | \$502,557              | \$2,237,778             | \$858,641              | \$7,494,185                | \$3,649,876                 | \$1,345,592                  | N/A                       | N/A                        | N/A                      |
| Book Value      | 3.91%                  | 3.60%                   | 2.90%                  | 5.70%                      | 4.00%                       | 5.90%                        | 2.00%                     | 3.85%                      | 4.30%                    |
| Percent of Fund |                        |                         |                        |                            |                             |                              |                           |                            |                          |
| <b>TOTAL:</b>   | <b>\$41,611,289.00</b> | <b>\$157,895,468.00</b> | <b>\$33,427,145.00</b> | <b>\$125,914,029.00</b>    | <b>\$114,986,782.00</b>     | <b>\$46,225,485.00</b>       | <b>\$246,119,384.00</b>   | <b>\$164,031,933.00</b>    | <b>\$271,217,792.00</b>  |
|                 | CLEARBRIDGE            | FISHER EM               | WELLINGTON INTL GROWTH | WAMCO                      | PIMCO TOTAL RETURN FUND     | GARCIA HAMILTON              | WAMCO HIGH YIELD          | ABERDEEN INTL FIXED INCOME | LIQUIDATION              |
| 1               | SANTANDER              | TECENT HOLDINGS         | TENCENT HOLDINGS       | UNITED STATES TREASURY DTD | 3 Month Euribor Future      | UNITED STATES TREASURY DTD   | SPDR BBG BARC ST HIGH YIE | TREASURY BILL              | REGIONS TRUST CASH SWEEP |
|                 | N/A                    | N/A                     | N/A                    | 11/15/2043                 | 3/19/2018                   | 5/15/2025                    | N/A                       | N/A                        | N/A                      |
| Maturity        | \$1,025,331            | \$2,587,187             | \$1,192,777            | \$16,669,643               | \$63,240,179                | \$16,656,657                 | \$981,375                 | \$8,696,904                | \$105,299,578            |
| Market Value    | N/A                    | N/A                     | N/A                    | N/A                        | N/A                         | N/A                          | N/A                       | N/A                        | \$105,299,578            |
| Book Value      | 2.72%                  | 7.36%                   | 4.37%                  | 14.02%                     | 33.37%                      | 13.27%                       | 3.15%                     | 11.89%                     | 100.00%                  |
| Percent of Fund |                        |                         |                        |                            |                             |                              |                           |                            |                          |
| 2               | HITACHI                | SAMSUNG ELECTRONICS     | ALIBABA                | FNCL 30YR FIXED            | US 5 Year Note (CBT) Mar18  | UNITED STATES TREASURY DTD   | CENTENE CORP              | TSY INFLX N/B              | N/A                      |
|                 | N/A                    | N/A                     | N/A                    | 1/15/2040                  | 3/30/2018                   | 2/15/2026                    | 5/15/2022                 | N/A                        | N/A                      |
| Maturity        | \$885,855              | \$1,785,722             | \$938,937              | \$13,530,709               | \$43,398,265                | \$12,843,500                 | \$891,026                 | \$7,431,501                | \$0                      |
| Market Value    | N/A                    | N/A                     | N/A                    | N/A                        | N/A                         | N/A                          | N/A                       | N/A                        | \$0                      |
| Book Value      | 2.35%                  | 5.08%                   | 3.44%                  | 11.38%                     | 22.90%                      | 10.23%                       | 2.86%                     | 10.16%                     | \$0                      |
| Percent of Fund |                        |                         |                        |                            |                             |                              |                           |                            | 0.00%                    |
| 3               | BNP PARIBAS            | HDFC BANK               | SAMSUNG ELECTRONICS    | UNITED STATES TREASURY DTD | US 10 Year Note (CBT) Mar18 | UNITED STATES TREASURY DTD   | DREYFUS QII GOV CASH MGMT | AUSTRALIAN GOVERNMENT      | N/A                      |
|                 | N/A                    | N/A                     | N/A                    | 5/15/2045                  | 3/21/2018                   | 8/15/2026                    | N/A                       | N/A                        | N/A                      |
| Maturity        | \$870,777              | \$1,754,085             | \$772,439              | \$9,666,491                | \$29,601,786                | \$7,815,284                  | \$828,717                 | \$5,873,519                | \$0                      |
| Market Value    | N/A                    | N/A                     | N/A                    | N/A                        | N/A                         | N/A                          | N/A                       | N/A                        | \$0                      |
| Book Value      | 2.31%                  | 4.99%                   | 2.83%                  | 8.13%                      | 15.62%                      | 6.22%                        | 2.66%                     | 8.03%                      | \$0                      |
| Percent of Fund |                        |                         |                        |                            |                             |                              |                           |                            | 0.00%                    |
| <b>TOTAL:</b>   | <b>\$37,695,977.00</b> | <b>\$35,152,000.00</b>  | <b>\$27,294,671.00</b> | <b>\$118,899,024.00</b>    | <b>\$189,512,075.00</b>     | <b>\$125,914,029.00</b>      | <b>\$31,154,757.00</b>    | <b>\$73,144,691.00</b>     | <b>\$105,299,578</b>     |

A complete list of portfolio holdings is available upon written request to LOPFI

## Arkansas Local Police & Fire Retirement System

### Investment Summary Year Ended December 31, 2017

| <u>Type of Investment</u>         | December 31, 2017       |                           |                   |
|-----------------------------------|-------------------------|---------------------------|-------------------|
|                                   | <u>Cost Value</u>       | <u>Fair Value</u>         | <u>% of Total</u> |
| Cash and Short Term Investments   | \$ 141,095,795          | \$ 141,095,795            | 6.9%              |
| Investments:                      |                         |                           |                   |
| Equity Securities - Diversified   | 271,360,495             | 349,431,987               | 17.0%             |
| Equity Securities - Foreign       | 37,420,127              | 49,452,074                | 2.4%              |
| Equity Mutual Funds               | 457,240,821             | 681,369,109               | 33.1%             |
| International Equity Mutual Funds | 80,333,893              | 116,523,792               | 5.7%              |
| Fixed Income Mutual Funds         | 377,943,575             | 412,708,994               | 20.0%             |
| Real Estate Investment Trusts     | 2,025,042               | 1,715,246                 | 0.1%              |
| U.S. Government Obligations       | 82,205,212              | 82,198,861                | 4.0%              |
| Corporate Bonds                   | 29,897,940              | 29,992,781                | 1.5%              |
| Mortgage-Backed Securities        | 12,855,442              | 12,589,085                | 0.6%              |
| Alternative Investments           | 171,482,693             | 179,936,628               | 8.7%              |
|                                   | <u>\$ 1,522,765,239</u> | <u>\$ 1,915,918,557</u> * | <u>93.0%</u>      |
| Land and Building                 | <u>2,356,706</u>        | <u>2,356,706</u>          | <u>0.1%</u>       |
| Total Investments                 | <u>\$ 1,666,217,740</u> | <u>\$ 2,059,371,058</u>   | <u>100.0%</u>     |

| <u>Type of Investment</u>          | December 31, 2016       |                           |                   |
|------------------------------------|-------------------------|---------------------------|-------------------|
|                                    | <u>Cost Value</u>       | <u>Fair Value</u>         | <u>% of Total</u> |
| Cash and Short Term Investments    | \$ 139,403,804          | \$ 139,403,804            | 6.8%              |
| Investments:                       |                         |                           |                   |
| U.S. Government Obligations        | 75,409,357              | 74,709,127                | 3.6%              |
| Corporate Obligations              | 24,854,684              | 23,787,628                | 1.2%              |
| Foreign Bonds                      | -                       | -                         | 0.0%              |
| Fixed Income Collective Trusts     | 227,865,713             | 247,257,602               | 12.0%             |
| Common and Preferred Stocks        | 258,764,846             | 315,743,888               | 15.3%             |
| Special Situation Properties, etc. | 342,400,397             | 349,078,396               | 17.0%             |
| Equity Mutual Collective Trusts    | 350,267,342             | 605,243,531               | 29.4%             |
| Real Estate Investment             | -                       | -                         | 0.0%              |
|                                    | <u>\$ 1,279,562,339</u> | <u>\$ 1,615,820,172</u> * | <u>78.5%</u>      |
| Land and Building                  | <u>2,395,153</u>        | <u>2,395,153</u>          | <u>0.1%</u>       |
| Total Investments                  | <u>\$ 1,421,361,296</u> | <u>\$ 1,757,619,129</u>   | <u>85.4%</u>      |

\* Per Statements of Fiduciary Net Position on Pages 24 & 25.



# Actuarial Section

# ACTUARY'S LETTER

GABRIEL, ROEDER, SMITH & COMPANY  
Consultants & Actuaries

One Towne Square • Suite 800 • Southfield, Michigan 48076 • 248-799-9000 • 800-521-0498 • fax 248-799-9020

May 8, 2018

Board of Trustees

Arkansas Local Police and Fire Retirement System

620 W. 3<sup>rd</sup>, Suite 200

Little Rock, Arkansas 72201-2212

Dear Trustees:

The basic financial objective of the Arkansas Local Police and Fire Retirement System (LOPFI) as provided in the Arkansas Code is to establish and receive contributions which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Arkansas citizens 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.

The actuarial valuation reports were prepared at the request of the Board and are intended for use by the Retirement System and those designated or approved by the Board. The reports may be provided to parties other than the System only in their entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of the reports. The reports should not be relied on for any purpose other than the purpose described.

The financial objective is addressed within the annual actuarial valuations. The valuation process develops contribution rates that are sufficient to fund the plan's normal cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered) as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll over a period of up to thirty years. The most recent valuations were completed based upon population data, asset data, and plan provisions as of December 31, 2017.

LOPFI's administrative staff provides the actuary with data for the actuarial valuations. The actuary relies on the data after reviewing it for internal and year-to-year consistency. The actuary summarizes and tabulates population data in order to analyze longer term trends. The plan's external auditor also audits the actuarial data annually. We are not responsible for the accuracy or completeness of the data provided by LOPFI staff.

As of December 31, 2017, actuarial valuations were made for 874 employer groups. Summary information about the resulting new employer contribution rates is shown in the compiled annual report. Results of the 2017 actuarial valuations indicate that aggregate actuarial accrued liabilities are 71% covered by the actuarial value of assets. This has remained level from last year's result of 71%. The actuarial value of assets is almost 100% of the market value of assets as of December 31, 2017. These results include the 227 local police and fire pension and relief funds which are closed to new hires and for which LOPFI also serves as administrative agent. Valuation results for those groups are summarized in the compiled annual report and are provided to the local fund and to the LOPFI administrative staff.

We prepared the following supporting schedules for the Comprehensive Annual Financial Report for the System's use in the Actuarial Section, the Statistical Section, Notes to the Financial Statements and Required Supplementary Information:

*Actuarial Section*

- Summary of Actuarial Assumptions and Methods
- Summary of Member Data Included in Valuations
- Active Members by Attained Age and Years of Service
- Schedule of Computed Employer Rates
- List of Benefit Program 2 Employer Groups
- Development of Funding Value of Retirement System Assets
- Reported Assets Available for Benefits
- Summary of Assets, Accrued Liabilities and Average Contribution Rates
- Short Condition Test
- Derivation of Actuarial Gain (Loss)
- Summary Plan Provisions for Paid and Volunteer Service
- Retirees and Beneficiaries Added to and Removed from Rolls

*Statistical Section*

- Summary of Membership Data
- Benefits Payable by Type for the Last Ten Years
- Schedules of Retired and Vested Members by Type of Benefit and Department
- Top Ten Participating Employers

*Financial Section*

- Schedule of Changes in the Employers' Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

Assets are valued on a market related basis that recognizes each year's difference between actual and assumed investment return over a closed five-year period.

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. The December 31, 2017 valuations were 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 are established by the Board after consulting with the actuary as outlined in A.C.A. 24-10-205(a)(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.

Further discussion occurred during the December 7, 2017 Board meeting where a 7.25% discount rate was considered and also determined to be reasonable. If a discount rate which was determined to be reasonable were used in this valuation instead of 7.5%, 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 7.0% discount rate would be 34 years for paid and 26 years for volunteer.

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

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

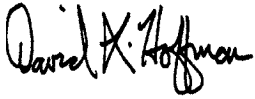
The valuations assumed the continuing ability of the plan sponsor to make contributions necessary to fund this plan. A determination of the ability of the plan sponsor to do so is outside our area of expertise and was not performed.

The report includes risk metrics, 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.

***On the basis of the December 31, 2017 actuarial valuations and the benefits and contribution rates then in effect, it is our opinion that the Arkansas Local Police and Fire Retirement System continues to satisfy the general financial objective of level contribution financing.***

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

Respectfully submitted,



David L. Hoffman



Heidi G. Barry, ASA, FCA, MAAA

DLH/HGB:ah

# 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) with the exception of the economic assumptions. The economic assumptions for purposes of the GASB Accounting reports were selected by the actuary based on the results of an experience study covering the period from January 1, 2012 through December 31, 2016.

### ECONOMIC ASSUMPTIONS

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*The investment return rate* used in the valuation was 7.00% 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 7.00% investment return rate translates to an assumed real rate of return of 3.75%.

*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 continue at the present number for LOPFI plans.

### NON-ECONOMIC ASSUMPTIONS

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*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 \$6.68 effective July 1, 2018 and is assumed to increase at the assumed rate of price inflation in future years. For Benefit Program 4 volunteer service plans, the contribution rates from the December 31, 2012 valuation were developed based on a \$10.00 per month basic benefit factor. This factor is \$10.83 effective July 1, 2018 and is assumed to increase at the assumed rate of price inflation in future years.

## OTHER TECHNICAL ASSUMPTIONS -----

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

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

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

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

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

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

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

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

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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.

## LOPFI Covered Groups and Covered Persons (Excluding Local Plans)

| Paid Police Covered by Social Security | Valuation Groups | Active Members* |                |             |            | Inflation Increase % (CPI) |
|--|------------------|-----------------|----------------|-------------|------------|----------------------------|
|  |                  | Number          | Annual Payroll | Average Pay | % Increase |                            |
| 12/31/1985                             | 39               | 218             | \$ 3,066,418   | \$14,066    | 10.7 %     | 3.8 %                      |
| 12/31/1986                             | 42               | 276             | 4,170,832      | 15,112      | 7.4        | 1.1                        |
| 12/31/1987                             | 48               | 342             | 5,333,703      | 15,596      | 3.2        | 4.4                        |
| 12/31/1988                             | 54               | 413             | 6,759,766      | 16,367      | 4.9        | 4.4                        |
| 12/31/1989                             | 54               | 457             | 7,803,548      | 17,076      | 4.3        | 4.6                        |
| 12/31/1990                             | 62               | 517             | 9,386,818      | 18,156      | 6.3        | 6.1                        |
| 12/31/1991                             | 73               | 614             | 11,618,980     | 18,923      | 4.2        | 3.1                        |
| 12/31/1992                             | 78               | 683             | 13,483,829     | 19,742      | 4.3        | 2.9                        |
| 12/31/1993                             | 89               | 806             | 16,407,154     | 20,356      | 3.1        | 2.7                        |
| 12/31/1994                             | 98               | 916             | 19,373,328     | 21,150      | 3.9        | 2.7                        |
| 12/31/1995                             | 110              | 1,053           | 23,212,618     | 22,044      | 4.2        | 2.5                        |
| 12/31/1996                             | 117              | 1,145           | 26,154,080     | 22,842      | 3.6        | 3.3                        |
| 12/31/1997                             | 128              | 1,211           | 28,971,065     | 23,923      | 4.7        | 1.7                        |
| 12/31/1998                             | 134              | 1,346           | 33,301,863     | 24,741      | 3.4        | 1.6                        |
| 12/31/1999                             | 141              | 1,480           | 38,187,948     | 25,803      | 4.3        | 2.7                        |
| 12/31/2000                             | 150              | 1,493           | 39,080,134     | 26,176      | 1.4        | 3.4                        |
| 12/31/2001                             | 152              | 1,497           | 42,193,903     | 28,186      | 7.7        | 1.6                        |
| 12/31/2002                             | 158              | 1,556           | 46,480,114     | 29,872      | 6.0        | 2.4                        |
| 12/31/2003                             | 154              | 1,583           | 49,757,738     | 31,433      | 5.2        | 1.9                        |
| 12/31/2004                             | 154              | 1,583           | 51,235,812     | 32,366      | 3.0        | 3.3                        |
| 12/31/2005                             | 154              | 1,614           | 53,061,186     | 32,876      | 1.6        | 3.4                        |
| 12/31/2006                             | 161              | 1,680           | 57,466,068     | 34,206      | 4.0        | 2.5                        |
| 12/31/2007                             | 166              | 1,787           | 62,170,244     | 34,790      | 1.7        | 4.1                        |
| 12/31/2008                             | 163              | 1,838           | 66,243,983     | 36,041      | 3.6        | 0.1                        |
| 12/31/2009                             | 172              | 1,905           | 71,687,015     | 37,631      | 4.4        | 2.7                        |
| 12/31/2010                             | 175              | 1,906           | 72,900,413     | 38,248      | 1.6        | 1.5                        |
| 12/31/2011                             | 176              | 1,931           | 74,098,384     | 38,373      | 0.3        | 3.0                        |
| 12/31/2012                             | 175              | 1,948           | 75,476,200     | 38,745      | 1.0        | 1.7                        |
| 12/31/2013                             | 172              | 1,986           | 79,718,641     | 40,140      | 3.6        | 1.5                        |
| 12/31/2014                             | 176              | 2,020           | 83,100,711     | 41,139      | 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                        |

\* Includes DROP participants, if any.

*Continued on next page*

**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
*(Continued)*

| Paid Police<br>Not Covered by Social Security | Valuation<br>Groups | Active Members* |                   |                |               | Inflation<br>Increase %<br>(CPI) |
|---|---------------------|-----------------|-------------------|----------------|---------------|----------------------------------|
|   |                     | Number          | Annual<br>Payroll | Average<br>Pay | %<br>Increase |                                  |
| 12/31/1985                                    | 13                  | 214             | \$ 3,386,482      | \$15,825       | 6.3 %         | 3.8 %                            |
| 12/31/1986                                    | 13                  | 283             | 4,798,324         | 16,955         | 7.1           | 1.1                              |
| 12/31/1987                                    | 13                  | 321             | 5,812,570         | 18,108         | 6.8           | 4.4                              |
| 12/31/1988                                    | 14                  | 410             | 7,849,599         | 19,145         | 5.7           | 4.4                              |
| 12/31/1989                                    | 14                  | 426             | 8,769,222         | 20,585         | 7.5           | 4.6                              |
| 12/31/1990                                    | 14                  | 539             | 11,392,678        | 21,137         | 2.7           | 6.1                              |
| 12/31/1991                                    | 14                  | 629             | 13,997,170        | 22,253         | 5.3           | 3.1                              |
| 12/31/1992                                    | 14                  | 693             | 16,891,924        | 24,375         | 9.5           | 2.9                              |
| 12/31/1993                                    | 14                  | 735             | 18,643,459        | 25,365         | 4.1           | 2.7                              |
| 12/31/1994                                    | 14                  | 866             | 22,959,944        | 26,513         | 4.5           | 2.7                              |
| 12/31/1995                                    | 14                  | 1,002           | 27,042,274        | 26,988         | 1.8           | 2.5                              |
| 12/31/1996                                    | 14                  | 1,087           | 31,394,960        | 28,882         | 7.0           | 3.3                              |
| 12/31/1997                                    | 14                  | 1,154           | 35,468,514        | 30,735         | 6.4           | 1.7                              |
| 12/31/1998                                    | 14                  | 1,220           | 39,052,564        | 32,010         | 4.1           | 1.6                              |
| 12/31/1999                                    | 14                  | 1,257           | 42,319,350        | 33,667         | 5.2           | 2.7                              |
| 12/31/2000                                    | 15                  | 1,300           | 45,395,466        | 34,920         | 3.7           | 3.4                              |
| 12/31/2001                                    | 15                  | 1,310           | 47,997,431        | 36,639         | 4.9           | 1.6                              |
| 12/31/2002                                    | 14                  | 1,309           | 51,013,420        | 38,971         | 6.4           | 2.4                              |
| 12/31/2003                                    | 14                  | 1,344           | 54,363,935        | 40,449         | 3.8           | 1.9                              |
| 12/31/2004                                    | 15                  | 1,369           | 57,397,946        | 41,927         | 3.7           | 3.3                              |
| 12/31/2005                                    | 15                  | 1,410           | 60,652,180        | 43,016         | 2.6           | 3.4                              |
| 12/31/2006                                    | 14                  | 1,455           | 64,982,903        | 44,662         | 3.8           | 2.5                              |
| 12/31/2007                                    | 14                  | 1,479           | 68,484,220        | 46,304         | 3.7           | 4.1                              |
| 12/31/2008                                    | 14                  | 1,507           | 72,880,723        | 48,361         | 4.4           | 0.1                              |
| 12/31/2009                                    | 14                  | 1,544           | 77,374,468        | 50,113         | 3.6           | 2.7                              |
| 12/31/2010                                    | 14                  | 1,562           | 76,993,476        | 49,292         | (1.6)         | 1.5                              |
| 12/31/2011                                    | 14                  | 1,558           | 79,332,711        | 50,920         | 3.3           | 3.0                              |
| 12/31/2012                                    | 14                  | 1,604           | 83,272,934        | 51,916         | 2.0           | 1.7                              |
| 12/31/2013                                    | 14                  | 1,635           | 87,087,216        | 53,264         | 2.6           | 1.5                              |
| 12/31/2014                                    | 14                  | 1,632           | 89,441,845        | 54,805         | 2.9           | 0.8                              |
| 12/31/2015                                    | 14                  | 1,599           | 87,090,401        | 54,466         | (0.6)         | 0.7                              |
| 12/31/2016                                    | 14                  | 1,597           | 88,602,540        | 55,481         | 1.9           | 2.1                              |
| 12/31/2017                                    | 14                  | 1,635           | 93,831,833        | 57,390         | 3.4           | 2.1                              |

\* Includes DROP participants, if any.

*Continued on next page*

**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
*(Continued)*

| Paid Fire<br>Covered by Social Security | Valuation<br>Groups | Active Members* |                   |                |               | Inflation<br>Increase %<br>(CPI) |
|---|---------------------|-----------------|-------------------|----------------|---------------|----------------------------------|
|   |                     | Number          | Annual<br>Payroll | Average<br>Pay | %<br>Increase |                                  |
| 12/31/1985                              | 2                   | 12              | \$ 210,238        | \$17,520       | 7.1 %         | 3.8 %                            |
| 12/31/1986                              | 2                   | 14              | 254,921           | 18,209         | 3.9           | 1.1                              |
| 12/31/1987                              | 2                   | 16              | 321,457           | 20,091         | 10.3          | 4.4                              |
| 12/31/1988                              | 3                   | 19              | 382,949           | 20,155         | 0.3           | 4.4                              |
| 12/31/1989                              | 3                   | 17              | 363,844           | 21,403         | 6.2           | 4.6                              |
| 12/31/1990                              | 3                   | 22              | 475,090           | 21,595         | 0.9           | 6.1                              |
| 12/31/1991                              | 3                   | 23              | 497,074           | 21,612         | 0.1           | 3.1                              |
| 12/31/1992                              | 2                   | 23              | 535,463           | 23,281         | 7.7           | 2.9                              |
| 12/31/1993                              | 2                   | 24              | 601,457           | 25,061         | 7.6           | 2.7                              |
| 12/31/1994                              | 2                   | 22              | 544,619           | 24,755         | (1.2)         | 2.7                              |
| 12/31/1995                              | 2                   | 24              | 642,998           | 26,792         | 8.2           | 2.5                              |
| 12/31/1996                              | 2                   | 24              | 658,401           | 27,433         | 2.4           | 3.3                              |
| 12/31/1997                              | 2                   | 16              | 413,344           | 25,834         | (5.8)         | 1.7                              |
| 12/31/1998                              | 2                   | 15              | 427,149           | 28,477         | 10.2          | 1.6                              |
| 12/31/1999                              | 2                   | 15              | 443,877           | 29,592         | 3.9           | 2.7                              |
| 12/31/2000                              | 3                   | 20              | 550,930           | 27,547         | (6.9)         | 3.4                              |
| 12/31/2001                              | 4                   | 34              | 1,091,894         | 32,115         | 16.6          | 1.6                              |
| 12/31/2002                              | 5                   | 34              | 1,236,009         | 36,353         | 13.2          | 2.4                              |
| 12/31/2003                              | 6                   | 34              | 1,297,597         | 38,165         | 5.0           | 1.9                              |
| 12/31/2004                              | 7                   | 58              | 1,881,084         | 32,432         | (15.0)        | 3.3                              |
| 12/31/2005                              | 10                  | 62              | 2,137,350         | 34,473         | 6.3           | 3.4                              |
| 12/31/2006                              | 13                  | 71              | 2,459,152         | 34,636         | 0.5           | 2.5                              |
| 12/31/2007                              | 19                  | 84              | 3,224,208         | 38,383         | 10.8          | 4.1                              |
| 12/31/2008                              | 20                  | 85              | 3,310,078         | 38,942         | 1.5           | 0.1                              |
| 12/31/2009                              | 21                  | 90              | 3,794,410         | 42,160         | 8.3           | 2.7                              |
| 12/31/2010                              | 23                  | 99              | 4,092,787         | 41,341         | (1.9)         | 1.5                              |
| 12/31/2011                              | 23                  | 104             | 4,155,015         | 39,952         | (3.4)         | 3.0                              |
| 12/31/2012                              | 22                  | 101             | 4,221,364         | 41,796         | 4.6           | 1.7                              |
| 12/31/2013                              | 25                  | 102             | 4,331,413         | 42,465         | 1.6           | 1.5                              |
| 12/31/2014                              | 25                  | 114             | 4,689,955         | 41,140         | (3.1)         | 0.8                              |
| 12/31/2015                              | 27                  | 124             | 5,239,454         | 42,254         | 2.7           | 0.7                              |
| 12/31/2016                              | 28                  | 126             | 5,375,073         | 42,659         | 1.0           | 2.1                              |
| 12/31/2017                              | 27                  | 126             | 5,486,384         | 43,543         | 2.1           | 2.1                              |

\* Includes DROP participants, if any.

*Continued on next page*



**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
*(Continued)*

| Paid Fire<br>Not Covered by Social Security | Valuation<br>Groups | Active Members* |                   |                |               | Inflation<br>Increase %<br>(CPI) |
|---|---------------------|-----------------|-------------------|----------------|---------------|----------------------------------|
|   |                     | Number          | Annual<br>Payroll | Average<br>Pay | %<br>Increase |                                  |
| 12/31/1985                                  | 39                  | 256             | \$ 3,838,880      | \$14,996       | 9.2 %         | 3.8 %                            |
| 12/31/1986                                  | 40                  | 346             | 5,619,219         | 16,241         | 8.3           | 1.1                              |
| 12/31/1987                                  | 45                  | 439             | 7,335,514         | 16,710         | 2.9           | 4.4                              |
| 12/31/1988                                  | 47                  | 514             | 9,377,770         | 18,245         | 9.2           | 4.4                              |
| 12/31/1989                                  | 47                  | 601             | 11,449,004        | 19,050         | 4.4           | 4.6                              |
| 12/31/1990                                  | 48                  | 661             | 13,207,386        | 19,981         | 4.9           | 6.1                              |
| 12/31/1991                                  | 48                  | 741             | 15,470,155        | 20,877         | 4.5           | 3.1                              |
| 12/31/1992                                  | 48                  | 825             | 18,328,407        | 22,216         | 6.4           | 2.9                              |
| 12/31/1993                                  | 51                  | 912             | 21,238,851        | 23,288         | 4.8           | 2.7                              |
| 12/31/1994                                  | 54                  | 1003            | 24,431,883        | 24,359         | 4.6           | 2.7                              |
| 12/31/1995                                  | 55                  | 1,115           | 28,317,948        | 25,397         | 4.3           | 2.5                              |
| 12/31/1996                                  | 55                  | 1,216           | 32,183,785        | 26,467         | 4.2           | 3.3                              |
| 12/31/1997                                  | 58                  | 1,334           | 37,011,225        | 27,745         | 4.8           | 1.7                              |
| 12/31/1998                                  | 58                  | 1,417           | 41,048,974        | 28,969         | 4.4           | 1.6                              |
| 12/31/1999                                  | 58                  | 1,549           | 47,249,417        | 30,503         | 5.3           | 2.7                              |
| 12/31/2000                                  | 60                  | 1,680           | 52,268,378        | 31,112         | 2.0           | 3.4                              |
| 12/31/2001                                  | 59                  | 1,732           | 57,430,283        | 33,158         | 6.6           | 1.6                              |
| 12/31/2002                                  | 59                  | 1,821           | 64,691,073        | 35,525         | 7.1           | 2.4                              |
| 12/31/2003                                  | 59                  | 1,888           | 70,635,697        | 37,413         | 5.3           | 1.9                              |
| 12/31/2004                                  | 60                  | 1,956           | 76,826,671        | 39,277         | 5.0           | 3.3                              |
| 12/31/2005                                  | 57                  | 2,029           | 81,650,944        | 40,242         | 2.5           | 3.4                              |
| 12/31/2006                                  | 59                  | 2,122           | 88,041,571        | 41,490         | 3.1           | 2.5                              |
| 12/31/2007                                  | 61                  | 2,245           | 95,882,874        | 42,710         | 2.9           | 4.1                              |
| 12/31/2008                                  | 60                  | 2,202           | 98,780,987        | 44,860         | 5.0           | 0.1                              |
| 12/31/2009                                  | 61                  | 2,360           | 108,383,023       | 45,925         | 2.4           | 2.7                              |
| 12/31/2010                                  | 61                  | 2,374           | 110,404,238       | 46,506         | 1.3           | 1.5                              |
| 12/31/2011                                  | 61                  | 2,415           | 114,640,275       | 47,470         | 2.1           | 3.0                              |
| 12/31/2012                                  | 60                  | 2,478           | 118,625,189       | 47,871         | 0.8           | 1.7                              |
| 12/31/2013                                  | 60                  | 2,514           | 124,879,563       | 49,674         | 3.8           | 1.5                              |
| 12/31/2014                                  | 60                  | 2,548           | 129,532,480       | 50,837         | 2.3           | 0.8                              |
| 12/31/2015                                  | 61                  | 2,585           | 134,740,985       | 52,124         | 2.5           | 0.7                              |
| 12/31/2016                                  | 62                  | 2,676           | 140,445,733       | 52,483         | 0.7           | 2.1                              |
| 12/31/2017                                  | 62                  | 2,694           | 144,407,370       | 53,603         | 2.1           | 2.1                              |

\* Includes DROP participants, if any.

*Continued on next page*

**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
**(Continued)**

| Total Paid | Valuation Groups | Active Members* |                |             |            | Inflation Increase % (CPI) |
|------------|------------------|-----------------|----------------|-------------|------------|----------------------------|
|            |                  | Number          | Annual Payroll | Average Pay | % Increase |                            |
| 12/31/1985 | 93               | 700             | \$ 10,502,018  | \$15,003    | 9.3 %      | 3.8 %                      |
| 12/31/1986 | 97               | 919             | 14,843,296     | 16,152      | 7.7        | 1.1                        |
| 12/31/1987 | 108              | 1,118           | 18,803,244     | 16,819      | 4.1        | 4.4                        |
| 12/31/1988 | 118              | 1,356           | 24,370,084     | 17,972      | 6.9        | 4.4                        |
| 12/31/1989 | 118              | 1,501           | 28,385,618     | 18,911      | 5.2        | 4.6                        |
| 12/31/1990 | 127              | 1,739           | 34,461,972     | 19,817      | 4.8        | 6.1                        |
| 12/31/1991 | 138              | 2,007           | 41,583,379     | 20,719      | 4.6        | 3.1                        |
| 12/31/1992 | 142              | 2,224           | 49,239,623     | 22,140      | 6.9        | 2.9                        |
| 12/31/1993 | 156              | 2,477           | 56,890,921     | 22,968      | 3.7        | 2.7                        |
| 12/31/1994 | 168              | 2,807           | 67,309,774     | 23,979      | 4.4        | 2.7                        |
| 12/31/1995 | 181              | 3,194           | 79,215,838     | 24,801      | 3.4        | 2.5                        |
| 12/31/1996 | 188              | 3,472           | 90,391,226     | 26,034      | 5.0        | 3.3                        |
| 12/31/1997 | 202              | 3,715           | 101,864,148    | 27,420      | 5.3        | 1.7                        |
| 12/31/1998 | 208              | 3,998           | 113,830,550    | 28,472      | 3.8        | 1.6                        |
| 12/31/1999 | 215              | 4,301           | 128,200,592    | 29,807      | 4.7        | 2.7                        |
| 12/31/2000 | 228              | 4,493           | 137,294,908    | 30,558      | 2.5        | 3.4                        |
| 12/31/2001 | 230              | 4,573           | 148,713,511    | 32,520      | 6.4        | 1.6                        |
| 12/31/2002 | 236              | 4,720           | 163,420,616    | 34,623      | 6.5        | 2.4                        |
| 12/31/2003 | 233              | 4,849           | 176,054,967    | 36,307      | 4.9        | 1.9                        |
| 12/31/2004 | 236              | 4,966           | 187,341,513    | 37,725      | 3.9        | 3.3                        |
| 12/31/2005 | 236              | 5,115           | 197,501,660    | 38,612      | 2.4        | 3.4                        |
| 12/31/2006 | 247              | 5,328           | 212,949,694    | 39,968      | 3.5        | 2.5                        |
| 12/31/2007 | 261              | 5,603           | 230,177,530    | 41,081      | 2.7        | 4.1                        |
| 12/31/2008 | 258              | 5,640           | 241,675,203    | 42,850      | 4.3        | 0.1                        |
| 12/31/2009 | 269              | 5,907           | 261,726,443    | 44,308      | 3.4        | 2.7                        |
| 12/31/2010 | 274              | 5,949           | 264,905,380    | 44,529      | 0.5        | 1.5                        |
| 12/31/2011 | 275              | 6,016           | 272,769,765    | 45,341      | 1.8        | 3.0                        |
| 12/31/2012 | 272              | 6,139           | 282,170,105    | 45,964      | 1.4        | 1.7                        |
| 12/31/2013 | 272              | 6,245           | 296,617,371    | 47,497      | 3.3        | 1.5                        |
| 12/31/2014 | 276              | 6,323           | 307,405,199    | 48,617      | 2.4        | 0.8                        |
| 12/31/2015 | 285              | 6,430           | 316,897,246    | 49,284      | 1.4        | 0.7                        |
| 12/31/2016 | 283              | 6,551           | 326,005,293    | 49,764      | 1.0        | 2.1                        |
| 12/31/2017 | 285              | 6,651           | 338,620,737    | 50,913      | 2.3        | 2.1                        |

\* Includes DROP participants, if any.

*Continued on next page*

**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
**(Continued)**

| Volunteer Police | Valuation Groups* | Active Members |                |             | Inflation Increase % (CPI) |
|------------------|-------------------|----------------|----------------|-------------|----------------------------|
|                  |                   | Number         | Annual Payroll | Average Pay |                            |
| 12/31/1985       | 2                 | 2              | N/A            | N/A         | N/A                        |
| 12/31/1986       | 2                 | 2              |                |             | N/A                        |
| 12/31/1987       | 3                 | 8              |                |             | N/A                        |
| 12/31/1988       | 3                 | 2              |                |             | N/A                        |
| 12/31/1989       | 4                 | 3              |                |             | N/A                        |
| 12/31/1990       | 1                 | 1              |                |             | N/A                        |
| 12/31/1991       | 2                 | 2              |                |             | 3.1%                       |
| 12/31/1992       | 4                 | 5              |                |             | 2.9                        |
| 12/31/1993       | 4                 | 5              |                |             | 2.7                        |
| 12/31/1994       | 8                 | 10             |                |             | 2.7                        |
| 12/31/1995       | 8                 | 9              |                |             | 2.5                        |
| 12/31/1996       | 9                 | 10             |                |             | 3.3                        |
| 12/31/1997       | 10                | 14             |                |             | 1.7                        |
| 12/31/1998       | 7                 | 8              |                |             | 1.6                        |
| 12/31/1999       | 8                 | 10             |                |             | 2.7                        |
| 12/31/2000       | 8                 | 9              |                |             | 3.4                        |
| 12/31/2001       | 10                | 16             |                |             | 1.6                        |
| 12/31/2002       | 19                | 49             |                |             | 2.4                        |
| 12/31/2003       | 24                | 55             |                |             | 1.9                        |
| 12/31/2004       | 24                | 55             |                |             | 3.3                        |
| 12/31/2005       | 32                | 70             |                |             | 3.4                        |
| 12/31/2006       | 38                | 91             |                |             | 2.5                        |
| 12/31/2007       | 51                | 118            |                |             | 4.1                        |
| 12/31/2008       | 42                | 123            |                |             | 0.1                        |
| 12/31/2009       | 44                | 139            |                |             | 2.7                        |
| 12/31/2010       | 58                | 174            |                |             | 1.5                        |
| 12/31/2011       | 72                | 230            |                |             | 3.0                        |
| 12/31/2012       | 69                | 224            |                |             | 1.7                        |
| 12/31/2013       | 85                | 293            |                |             | 1.5                        |
| 12/31/2014       | 98                | 335            |                |             | 0.8                        |
| 12/31/2015       | 105               | 366            |                |             | 0.7                        |
| 12/31/2016       | 104               | 396            |                |             | 2.1                        |
| 12/31/2017       | 108               | 408            |                |             | 2.1                        |

\* Prior to the 12/31/2007 valuation, valuations were performed for each employer division. Beginning with the 12/31/2007 valuation, the employer divisions are combined into one valuation group.

*Continued on next page*

**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
*(Continued)*

| Volunteer Fire | Valuation Groups* | Active Members |                |             |            | Inflation Increase % (CPI) |
|----------------|-------------------|----------------|----------------|-------------|------------|----------------------------|
|                |                   | Number         | Annual Payroll | Average Pay | % Increase |                            |
| 12/31/1985     | 166               | 756            | N/A            | N/A         | N/A        | N/A                        |
| 12/31/1986     | 185               | 1020           |                |             |            | N/A                        |
| 12/31/1987     | 202               | 1238           |                |             |            | N/A                        |
| 12/31/1988     | 207               | 1422           |                |             |            | N/A                        |
| 12/31/1989     | 215               | 1623           |                |             |            | N/A                        |
| 12/31/1990     | 218               | 1823           |                |             |            | N/A                        |
| 12/31/1991     | 226               | 2005           |                |             |            | 3.1                        |
| 12/31/1992     | 232               | 2167           |                |             |            | 2.9                        |
| 12/31/1993     | 237               | 2370           |                |             |            | 2.7                        |
| 12/31/1994     | 239               | 2452           |                |             |            | 2.7                        |
| 12/31/1995     | 238               | 2,684          |                |             |            | 2.5                        |
| 12/31/1996     | 243               | 2,895          |                |             |            | 3.3                        |
| 12/31/1997     | 248               | 3,063          |                |             |            | 1.7                        |
| 12/31/1998     | 249               | 3,175          |                |             |            | 1.6                        |
| 12/31/1999     | 253               | 3,397          |                |             |            | 2.7                        |
| 12/31/2000     | 254               | 3,481          |                |             |            | 3.4                        |
| 12/31/2001     | 255               | 3,585          |                |             |            | 1.6                        |
| 12/31/2002     | 261               | 3,809          |                |             |            | 2.4                        |
| 12/31/2003     | 266               | 4,033          |                |             |            | 1.9                        |
| 12/31/2004     | 282               | 4,351          |                |             |            | 3.3                        |
| 12/31/2005     | 293               | 4,580          |                |             |            | 3.4                        |
| 12/31/2006     | 303               | 4,814          |                |             |            | 2.5                        |
| 12/31/2007     | 410               | 6,502          |                |             |            | 4.1                        |
| 12/31/2008     | 415               | 6,480          |                |             |            | 0.1                        |
| 12/31/2009     | 424               | 6,412          |                |             |            | 2.7                        |
| 12/31/2010     | 427               | 6,560          |                |             |            | 1.5                        |
| 12/31/2011     | 440               | 6,804          |                |             |            | 3.0                        |
| 12/31/2012     | 442               | 6,805          |                |             |            | 1.7                        |
| 12/31/2013     | 449               | 6,847          |                |             |            | 1.5                        |
| 12/31/2014     | 456               | 7,012          |                |             |            | 0.8                        |
| 12/31/2015     | 461               | 6,938          |                |             |            | 0.7                        |
| 12/31/2016     | 469               | 6,995          |                |             |            | 2.1                        |
| 12/31/2017     | 471               | 6,933          |                |             |            | 2.1                        |

\* Prior to the 12/31/2007 valuation, valuations were performed for each employer division. Beginning with the 12/31/2007 valuation, the employer divisions are combined into one valuation group.

*Continued on next page*

**LOPFI Covered Groups and Covered Persons**  
**(Excluding Local Plans)**  
**(Concluded)**

| Total Volunteer | Valuation Groups* | Active Members |                |             |            | Inflation Increase % (CPI) |
|-----------------|-------------------|----------------|----------------|-------------|------------|----------------------------|
|                 |                   | Number         | Annual Payroll | Average Pay | % Increase |                            |
| 12/31/1985      | 168               | 758            | N/A            | N/A         | N/A        | N/A                        |
| 12/31/1986      | 187               | 1,022          |                |             |            | N/A                        |
| 12/31/1987      | 205               | 1,246          |                |             |            | N/A                        |
| 12/31/1988      | 210               | 1,424          |                |             |            | N/A                        |
| 12/31/1989      | 219               | 1,626          |                |             |            | N/A                        |
| 12/31/1990      | 219               | 1,824          |                |             |            | N/A                        |
| 12/31/1991      | 228               | 2,007          |                |             |            | 3.1                        |
| 12/31/1992      | 236               | 2,172          |                |             |            | 2.9                        |
| 12/31/1993      | 241               | 2,375          |                |             |            | 2.7                        |
| 12/31/1994      | 247               | 2,462          |                |             |            | 2.7                        |
| 12/31/1995      | 246               | 2,693          |                |             |            | 2.5                        |
| 12/31/1996      | 252               | 2,905          |                |             |            | 3.3                        |
| 12/31/1997      | 258               | 3,077          |                |             |            | 1.7                        |
| 12/31/1998      | 256               | 3,183          |                |             |            | 1.6                        |
| 12/31/1999      | 261               | 3,407          |                |             |            | 2.7                        |
| 12/31/2000      | 262               | 3,490          |                |             |            | 3.4                        |
| 12/31/2001      | 265               | 3,601          |                |             |            | 1.6                        |
| 12/31/2002      | 280               | 3,858          |                |             |            | 2.4                        |
| 12/31/2003      | 290               | 4,088          |                |             |            | 1.9                        |
| 12/31/2004      | 306               | 4,406          |                |             |            | 3.3                        |
| 12/31/2005      | 325               | 4,650          |                |             |            | 3.4                        |
| 12/31/2006      | 341               | 4,905          |                |             |            | 2.5                        |
| 12/31/2007      | 461               | 6,620          |                |             |            | 4.1                        |
| 12/31/2008      | 457               | 6,603          |                |             |            | 0.1                        |
| 12/31/2009      | 468               | 6,551          |                |             |            | 2.7                        |
| 12/31/2010      | 485               | 6,734          |                |             |            | 1.5                        |
| 12/31/2011      | 512               | 7,034          |                |             |            | 3.0                        |
| 12/31/2012      | 511               | 7,029          |                |             |            | 1.7                        |
| 12/31/2013      | 534               | 7,140          |                |             |            | 1.5                        |
| 12/31/2014      | 554               | 7,347          |                |             |            | 0.8                        |
| 12/31/2015      | 566               | 7,304          |                |             |            | 0.7                        |
| 12/31/2016      | 573               | 7,391          |                |             |            | 2.1                        |
| 12/31/2017      | 579               | 7,341          |                |             |            | 2.1                        |

\* Prior to the 12/31/2007 valuation, valuations were performed for each employer division. Beginning with the 12/31/2007 valuation, the employer divisions are combined into one valuation group.

**LOPFI (Excluding Local Plans)  
Paid Service Active Members – December 31, 2017  
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      | 6                                  |              |            |            |            |            |            | 6            | \$ 183,120            |
| 20-24         | 333                                | 21           |            |            |            |            |            | 354          | 12,783,793            |
| 25-29         | 751                                | 213          | 43         |            |            |            |            | 1,007        | 40,292,621            |
| 30-34         | 435                                | 367          | 195        | 73         |            |            |            | 1,070        | 48,012,871            |
| 35-39         | 238                                | 250          | 335        | 180        | 99         |            |            | 1,102        | 55,595,609            |
| 40-44         | 95                                 | 120          | 199        | 329        | 166        | 95         |            | 1,004        | 56,772,362            |
| 45-49         | 61                                 | 76           | 94         | 214        | 311        | 158        | 62         | 976          | 58,500,254            |
| 50-54         | 29                                 | 32           | 59         | 76         | 158        | 218        | 75         | 647          | 39,463,091            |
| 55-59         | 29                                 | 22           | 43         | 37         | 69         | 121        | 37         | 358          | 20,441,190            |
| 60-64         | 9                                  | 13           | 15         | 17         | 16         | 22         | 18         | 110          | 5,771,875             |
| 65-69         | 1                                  | 1            | 2          | 5          | 3          | 1          | 2          | 15           | 723,644               |
| 70+           |                                    | 1            |            |            |            |            | 1          | 2            | 80,307                |
| <b>Totals</b> | <b>1,987</b>                       | <b>1,116</b> | <b>985</b> | <b>931</b> | <b>822</b> | <b>615</b> | <b>195</b> | <b>6,651</b> | <b>\$ 338,620,737</b> |

Average Age: 39.2 years

Average Service: 12.5 years

Average Pay: \$50,913

\* Includes DROP participants.

As a comparison, 6,551 paid service members participated in LOPFI on December 31, 2016.

**LOPFI (Excluding Local Plans)**  
**Volunteer Service Active Members – December 31, 2017**  
**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    |              |
| Under 20      | 70                                 |              |              |            |            |            |            | 70           |
| 20-24         | 563                                | 45           |              |            |            |            |            | 608          |
| 25-29         | 448                                | 316          | 61           |            |            |            |            | 825          |
| 30-34         | 399                                | 250          | 218          | 66         |            |            |            | 933          |
| 35-39         | 291                                | 232          | 202          | 170        | 69         |            |            | 964          |
| 40-44         | 248                                | 176          | 142          | 167        | 131        | 66         |            | 930          |
| 45-49         | 201                                | 156          | 166          | 137        | 132        | 125        | 45         | 962          |
| 50-54         | 154                                | 125          | 126          | 104        | 119        | 89         | 76         | 793          |
| 55-59         | 116                                | 88           | 100          | 96         | 86         | 48         | 45         | 579          |
| 60-64         | 76                                 | 61           | 51           | 56         | 50         | 31         | 34         | 359          |
| 65-69         | 44                                 | 36           | 30           | 31         | 15         | 18         | 14         | 188          |
| 70+           | 50                                 | 21           | 23           | 14         | 10         | 4          | 8          | 130          |
| <b>Totals</b> | <b>2,660</b>                       | <b>1,506</b> | <b>1,119</b> | <b>841</b> | <b>612</b> | <b>381</b> | <b>222</b> | <b>7,341</b> |

Average Age: 41.6 years

Average Service: 10.5 years

As a comparison, 7,391 volunteer service members participated in LOPFI on December 31, 2016.

**LOPFI**  
**Computed Employer Contributions**  
**For Paid Service Members by Valuation Groups**  
**December 31, 2017**

| Group               | Number of Active Members | Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll |                |                |                |                |                |                |                |                |                |                |                |                |                | Totals |  |
|---------------------|--------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------|--|
|                     |                          | Under 11.00%   | 11.00% -11.99% | 12.00% -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                | 2,196                    | 1  | -              | -              | 1              | 1              | 1              | 2              | 2              | 9              | 4              | 8              | 11             | 16             | 126            | 182    |  |
| W/O SS              | 1,635                    | -  | -              | -              | -              | -              | 2              | 1              | 2              | 1              | 1              | 2              | 3              | -              | 2              | 14     |  |
| Paid Fire           |                          |  |                |                |                |                |                |                |                |                |                |                |                |                |                |        |  |
| W/SS                | 126                      | -  | -              | -              | -              | -              | -              | -              | -              | -              | -              | -              | 1              | 1              | 25             | 27     |  |
| W/O SS              | <u>2,694</u>             | -  | -              | -              | -              | -              | -              | 2              | 3              | 1              | -              | 5              | 3              | 7              | 41             | 62     |  |
| December 31, 2017 * | 6,651                    | 1  | -              | -              | 1              | 1              | 3              | 5              | 7              | 11             | 5              | 15             | 18             | 24             | 194            | 285    |  |

\* After changes in actuarial valuation assumptions.  
# After legislated benefit changes.

| Group                | Number of Active Members | Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll |              |                |                |                |                |                |                |                | Totals |
|----------------------|--------------------------|--|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------|
|                      |                          | Under 9.00%  | 9.00% -9.99% | 10.00% -10.99% | 11.00% -11.99% | 12.00% -12.99% | 13.00% -13.99% | 14.00% -14.99% | 15.00% -15.99% | 16.00% & Above |        |
| December 31, 2016    | 6,551                    | 0  | 1            | 0              | 0              | 0              | 2              | 3              | 5              | 272            | 283    |
| December 31, 2015 *  | 6,430                    | 1  | 0            | 0              | 1              | 2              | 3              | 5              | 7              | 266            | 285    |
| December 31, 2014    | 6,323                    | 1  | 0            | 1              | 2              | 3              | 5              | 6              | 11             | 247            | 276    |
| December 31, 2013    | 6,245                    | 1  | 0            | 2              | 3              | 5              | 6              | 11             | 6              | 238            | 272    |
| December 31, 2012 *# | 6,139                    | 1  | 2            | 3              | 6              | 6              | 11             | 7              | 16             | 220            | 272    |
| December 31, 2011 @  | 6,016                    | 3  | 3            | 6              | 6              | 12             | 6              | 17             | 19             | 203            | 275    |
| December 31, 2010    | 5,949                    | 7  | 6            | 6              | 13             | 6              | 17             | 18             | 27             | 174            | 274    |
| December 31, 2009    | 5,907                    | 8  | 8            | 8              | 5              | 11             | 20             | 17             | 33             | 159            | 269    |
| December 31, 2008 *# | 5,640                    | 13   | 7            | 4              | 12             | 17             | 17             | 27             | 26             | 135            | 258    |

\* After changes in actuarial valuation assumptions.  
# After legislated benefit changes.

*Continued on next page*



**LOPFI**  
**Computed Employer Contributions**  
**For Volunteer Service Members by Valuation Groups**  
**December 31, 2017**

| <b>Group</b>         | <b>Number of<br/>Active<br/>Members</b> | <b>Totals</b> |
|----------------------|---|---------------|
| Volunteer Police     | 408                                     | 108           |
| Volunteer Fire       | 6,933                                   | 471           |
| December 31, 2017    | 7,341                                   | 579           |
| December 31, 2016    | 7,391                                   | 573           |
| December 31, 2015 *  | 7,304                                   | 566           |
| December 31, 2014    | 7,347                                   | 554           |
| December 31, 2013    | 7,140                                   | 534           |
| December 31, 2012    | 7,029                                   | 511           |
| December 31, 2011    | 7,034                                   | 512           |
| December 31, 2010    | 6,734                                   | 485           |
| December 31, 2009    | 6,551                                   | 468           |
| December 31, 2008 *# | 6,603                                   | 457           |

\* *After changes in actuarial valuation assumptions.*

# *After legislated benefit increases.*

## Benefit Program 2 Employers (Included in Paid Service Schedules)

| Employer                 | Number of<br>Active Members* | Payroll              |
|--------------------------|------------------------------|----------------------|
| Bella Vista Paid Police  | 29                           | \$ 1,519,624         |
| Bella Vista Paid Fire    | 50                           | 2,636,056            |
| Fayetteville Paid Police | 129                          | 7,194,063            |
| Fayetteville Paid Fire   | 118                          | 7,573,248            |
| Hot Springs Paid Police  | 105                          | 5,663,442            |
| Hot Springs Paid Fire    | 88                           | 4,241,821            |
| Marion Paid Police       | 29                           | 1,093,203            |
| <b>Total BP2</b>         | <b>548</b>                   | <b>\$ 29,921,457</b> |

\* Includes DROP participants, if any.

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

|   | 2013            | 2014            | 2015            | 2016            | 2017            |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| A. Funding Value Beginning of Year            | \$1,169,357,127 | \$1,391,830,575 | \$1,554,175,988 | \$1,702,593,072 | \$1,857,485,451 |
| B. Market Value End of Year                   | 1,467,975,980   | 1,610,091,699   | 1,646,678,312   | 1,770,838,998   | 2,074,618,439   |
| C. Market Value Beginning of Year             | 1,158,753,904   | 1,467,975,980   | 1,610,091,699   | 1,646,678,312   | 1,770,838,998   |
| D. Non-Investment Net Cash Flow               | 99,797,352      | 37,152,170      | 37,416,976      | 28,455,864      | 53,667,520      |
| E. Investment Income                          |                 |                 |                 |                 |                 |
| E1. Market Total: B - C - D                   | 209,424,724     | 104,963,549     | (830,363)       | 95,704,822      | 250,111,921     |
| E1(a). Assumed Rate of Return                 | 8.0%            | 8.0%            | 8.0%            | 7.75%           | 7.75%           |
| E2. Amount for Immediate Recognition          | 97,540,464      | 112,832,533     | 125,830,748     | 133,053,628     | 146,034,739     |
| E3. Amount for Phased-In Recognition E1-E2    | 111,884,260     | (7,868,984)     | (126,661,111)   | (37,348,806)    | 104,077,182     |
| F. Phased-In Recognition of Investment Income |                 |                 |                 |                 |                 |
| F1. Current Year: 0.20 x E3                   | 22,376,852      | (1,573,797)     | (25,332,222)    | (7,469,761)     | 20,815,436      |
| F2. First Prior Year                          | 5,381,814       | 22,376,852      | (1,573,797)     | (25,332,222)    | (7,469,761)     |
| F3. Second Prior Year                         | (15,683,289)    | 5,381,814       | 22,376,852      | (1,573,797)     | (25,332,222)    |
| F4. Third Prior Year                          | 1,859,130       | (15,683,289)    | 5,381,814       | 22,376,852      | (1,573,797)     |
| F5. Fourth Prior Year                         | 11,201,125      | 1,859,130       | (15,683,287)    | 5,381,815       | 22,376,852      |
| F6. Total Recognized Investment Gain          | 25,135,632      | 12,360,710      | (14,830,640)    | (6,617,113)     | 8,816,508       |
| G. Funding Value End of Year: A + D + E2 + F6 | 1,391,830,575   | 1,554,175,988   | 1,702,593,072   | 1,857,485,451   | 2,066,004,218   |
| 120% Corridor                                 | 1,761,571,176   | 1,932,110,039   | 1,976,013,974   | 2,125,006,798   | 2,489,542,127   |
| 80% Corridor                                  | 1,174,380,784   | 1,288,073,359   | 1,317,342,650   | 1,416,671,198   | 1,659,694,751   |
| Funding Value End of Year:                    | 1,391,830,575   | 1,554,175,988   | 1,702,593,072   | 1,857,485,451   | 2,066,004,218   |
| H. Difference between Market & Funding Value  | 76,145,405      | 55,915,711      | (55,914,760)    | (86,646,453)    | 8,614,221       |
| I. Recognized Rate of Return                  | 10.06%          | 8.88%           | 7.06%           | 7.36%           | 8.22%           |
| J. Market Rate of Return                      | 17.33%          | 7.06%           | (0.05%)         | 5.76%           | 13.91%          |
| K. Ratio of Funding Value to Market Value     | 94.81%          | 96.53%          | 103.40%         | 104.89%         | 99.58%          |

**LOPFI**  
**Reported Accrued Assets Available for Benefits**  
**December 31, 2017**

| <u>Group Type</u>              | <u>No. #</u> | <u>Employer<br/>Accumulation<br/>Account</u> | <u>Members'<br/>Deposit<br/>Account</u> | <u>Retirement<br/>Reserve<br/>Account &amp;</u> | <u>Total @</u>     |
|--------------------------------|--------------|--|---|---|--------------------|
| Paid Police W/SS               | 182          | 121,219,818                                  | 16,254,570                              | -   | 137,474,388        |
| Paid Police W/O SS             | 14           | 228,531,338                                  | 83,612,289                              | -   | 312,143,627        |
| Paid Fire W/SS                 | 27           | 7,609,311                                    | 1,902,664                               | -   | 9,511,975          |
| Paid Fire W/O SS               | <u>62</u>    | <u>405,445,087</u>                           | <u>127,459,279</u>                      | -   | <u>532,904,366</u> |
| Subtotal                       | 285          | 762,805,554                                  | 229,228,802                             | -   | 992,034,356        |
| Volunteer<br>Police and Fire   | 579          | 41,939,756                                   | -                                       | -   | 41,939,756         |
| Retirants and<br>Beneficiaries | -            | -  | -                                       | <u>825,416,781</u>                              | <u>825,416,781</u> |
| Total                          | 864          | 804,745,310                                  | 229,228,802                             | 825,416,781                                     | 1,859,390,893      |

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

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

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

*# Number of employers with active participants as of December 31, 2017. Totals include accounts for employers with no active participants as of December 31, 2017.*

@ Does not include assets of \$215,227,546 invested by LOPFI on behalf of Relief and Pension Funds under LOPF administration.

& Includes DROP Reserve Account.

## LOPFI and Local Plan Schedule of Funding Progress

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Entry Age Actuarial Liability (AAL) (b) | Unfunded AAL (UAAL) (c) = (b) - (a) | Funded Ratio (d) = (a)/(b) | Annual Covered Payroll (e) | UAAL as a Percentage of Covered 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%  |

\* After legislated benefit increases for LOPFI members  
+ After changes in actuarial assumptions

## LOPFI

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

#### Paid Participants

| Valuation Date | Valuation Groups | Active Members | Actuarial Accrued Liabilities | Actuarial Valuation Assets | Assets/Liabilities* | Average Contribution Rate | Amortization Period |
|----------------|------------------|----------------|-------------------------------|----------------------------|---------------------|---------------------------|---------------------|
| 12/31/2005     | 236              | 5,115          | \$ 526,635,441                | \$ 483,789,282             | 92 %                | 15.04 %                   | 30.0                |
| 12/31/2006     | 247              | 5,328          | 603,842,363                   | 555,752,156                | 92                  | 15.11                     | 30.0                |
| 12/31/2007     | 261              | 5,603          | 699,800,039                   | 644,631,782                | 92                  | 15.16                     | 30.0                |
| 12/31/2008 #+  | 258              | 5,640          | 825,417,767                   | 662,380,764                | 80                  | 15.30                     | 30.0                |
| 12/31/2009     | 269              | 5,907          | 946,423,135                   | 622,560,540                | 66                  | 17.25                     | 30.0                |
| 12/31/2010     | 274              | 5,949          | 1,012,194,055                 | 664,246,931                | 66                  | 17.03                     | 30.0                |
| 12/31/2011     | 275              | 6,016          | 1,077,498,958                 | 698,331,958                | 65                  | 18.01                     | 30.0                |
| 12/31/2012 #+  | 272              | 6,139          | 1,144,065,505                 | 741,339,106                | 65                  | 18.97                     | 22.3                |
| 12/31/2013     | 272              | 6,245          | 1,234,260,098                 | 830,390,612                | 67                  | 19.39                     | 19.5                |
| 12/31/2014     | 276              | 6,323          | 1,309,948,715                 | 911,335,468                | 70                  | 20.12                     | 16.3                |
| 12/31/2015 #   | 285              | 6,430          | 1,411,113,518                 | 937,319,676                | 66                  | 21.04                     | 18.8                |
| 12/31/2016     | 283              | 6,551          | 1,469,152,456                 | 974,820,813                | 66                  | 21.90                     | 16.8                |
| 12/31/2017     | 285              | 6,651          | 1,532,548,147                 | 1,025,140,633              | 67                  | 22.44                     | 15.5                |
| 12/31/2017 #   | 285              | 6,651          | 1,557,008,108                 | 1,013,951,503              | 65                  | 22.44                     | 17.0                |

\* 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

Continued on next page

## LOPFI

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

#### Volunteer Participants

| Valuation Date | Valuation Groups | Active Members | Actuarial Accrued Liabilities | Actuarial Valuation Assets | Assets/Liabilities* | Average Contribution Rate | Amortization Period |
|----------------|------------------|----------------|-------------------------------|----------------------------|---------------------|---------------------------|---------------------|
| 12/31/2005     | 325              | 4,650          | \$ 26,240,543                 | \$ 16,517,560              | 63 %                | \$ 32.30                  | 30.0                |
| 12/31/2006     | 341              | 4,905          | 30,139,607                    | 18,430,385                 | 61                  | 33.91                     | 30.0                |
| 12/31/2007     | 461              | 6,620          | 42,720,023                    | 22,236,583                 | 52                  | 39.15                     | 30.0                |
| 12/31/2008 #   | 457              | 6,603          | 47,019,246                    | 17,508,921                 | 37                  | 46.14                     | 30.0                |
| 12/31/2009     | 468              | 6,551          | 48,890,402                    | 17,034,083                 | 35                  | 49.15                     | 29.0                |
| 12/31/2010     | 485              | 6,734          | 52,068,716                    | 19,655,706                 | 38                  | 49.62                     | 28.0                |
| 12/31/2011     | 512              | 7,034          | 56,421,727                    | 21,564,055                 | 38                  | 51.56                     | 27.0                |
| 12/31/2012 #   | 511              | 7,029          | 60,215,143                    | 23,703,257                 | 39                  | 53.75                     | 26.0                |
| 12/31/2013     | 534              | 7,140          | 63,106,093                    | 28,084,402                 | 45                  | 52.68                     | 25.0                |
| 12/31/2014     | 554              | 7,347          | 65,739,819                    | 32,649,827                 | 50                  | 52.68                     | 20.7                |
| 12/31/2015 #   | 566              | 7,304          | 68,670,319                    | 33,878,371                 | 49                  | 54.13                     | 21.2                |
| 12/31/2016     | 573              | 7,391          | 72,092,819                    | 38,164,014                 | 53                  | 55.62                     | 18.5                |
| 12/31/2017     | 579              | 7,341          | 74,935,671                    | 42,348,729                 | 57                  | 57.67                     | 16.0                |
| 12/31/2017 #   | 579              | 7,341          | 75,746,636                    | 41,497,711                 | 55                  | 59.00                     | 16.0                |

\* 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

Continued on next page

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

| Retirants and Beneficiaries |                  |                |                               |                            |                     |                     |
|-----------------------------|------------------|----------------|-------------------------------|----------------------------|---------------------|---------------------|
| Valuation Date              | Valuation Groups | Active Members | Actuarial Accrued Liabilities | Actuarial Valuation Assets | Assets/Liabilities* | Assets/Liabilities* |
| 12/31/2005                  | -                | -              | \$ 65,530,656                 | \$ 65,115,240              | 99 %                | 99 %                |
| 12/31/2006                  | -                | -              | 79,179,485                    | 80,827,514                 | 102                 | 102                 |
| 12/31/2007                  | -                | -              | 95,286,950                    | 100,568,257                | 106                 | 106                 |
| 12/31/2008 #                | -                | -              | 122,445,893                   | 122,445,893                | 100                 | 100                 |
| 12/31/2009                  | -                | -              | 152,859,019                   | 152,859,019                | 100                 | 100                 |
| 12/31/2010                  | -                | -              | 189,166,801                   | 189,166,801                | 100                 | 100                 |
| 12/31/2011                  | -                | -              | 245,094,370                   | 245,094,370                | 100                 | 100                 |
| 12/31/2012 #                | -                | -              | 308,554,826                   | 308,554,826                | 100                 | 100                 |
| 12/31/2013                  | -                | -              | 379,284,767                   | 379,284,767                | 100                 | 100                 |
| 12/31/2014                  | -                | -              | 449,064,235                   | 449,064,235                | 100                 | 100                 |
| 12/31/2015 #                | -                | -              | 554,983,611                   | 554,983,611                | 100                 | 100                 |
| 12/31/2016                  | -                | -              | 664,379,492                   | 664,379,492                | 100                 | 100                 |
| 12/31/2017                  | -                | -              | 784,503,636                   | 784,503,636                | 100                 | 100                 |
| 12/31/2017 #                | -                | -              | 796,543,784                   | 796,543,784                | 100                 | 100                 |

\* If this ratio approximates 100%, it indicates that financial activity is operating within an expected range of reasonableness.  
# After changes in actuarial valuation assumptions.  
+ After legislated benefit changes and board policy changes

Continued on next page



# LOPFI

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

### TOTAL PLAN

| Valuation Date | Valuation Groups | Active Members | Actuarial Accrued Liabilities | Actuarial Valuation Assets | Assets/ Liabilities* |
|----------------|------------------|----------------|-------------------------------|----------------------------|----------------------|
| 12/31/2005     | 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         | 2,391,987,454                 | 1,851,992,998              | 77                   |
| 12/31/2017 #   | 864              | 13,992         | 2,429,298,528                 | 1,851,992,998              | 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 and board policy changes

## Short Condition Test Comparative Statement

### 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)  | Assets                    | (1)   | (2)   | (3)  |
| 2008 +*        | \$ 107,486,154                    | \$ 116,390,986                     | \$ 717,931,676   | \$ 778,148,309            | 100 %                                       | 100 % | 77 % |
| 2009           | 126,212,081                       | 142,789,842                        | 820,211,054  | 765,350,382               | 100   | 100   | 61   |
| 2010           | 142,979,396                       | 176,648,898                        | 869,214,659  | 840,895,829               | 100   | 100   | 60   |
| 2011           | 159,770,407                       | 229,845,487                        | 917,728,551  | 928,182,921               | 100   | 100   | 59   |
| 2012 +*        | 176,658,387                       | 290,143,869                        | 967,407,118  | 1,031,482,975             | 100   | 100   | 58   |
| 2013           | 189,555,199                       | 357,817,076                        | 1,044,704,899  | 1,188,207,688             | 100   | 100   | 61   |
| 2014           | 202,036,742                       | 424,620,753                        | 1,107,911,973  | 1,335,956,221             | 100   | 100   | 64   |
| 2015 +         | 211,502,055                       | 526,188,884                        | 1,199,611,463  | 1,463,508,560             | 100   | 100   | 61   |
| 2016           | 220,115,288                       | 632,757,349                        | 1,249,037,168  | 1,607,578,162             | 100   | 100   | 60   |
| 2017 +         | 229,228,802                       | 760,264,654                        | 1,327,779,306  | 1,774,216,157             | 100   | 100   | 59   |

### Local 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)  | Assets                    | (1)   | (2) | (3) |
| 2008 +         | \$ 4,586,196                      | \$ 189,690,459                     | \$ 725,693   | \$ (14,784,011)           | - %   | - % | - % |
| 2009           | 3,163,233                         | 185,486,259                        | 29,522,904   | 80,902,787                | 100   | 42  | -   |
| 2010           | 2,849,033                         | 215,795,003                        | 34,266,295   | 102,556,180               | 100   | 46  | -   |
| 2011           | 2,450,310                         | 226,494,886                        | 32,836,591   | 99,201,212                | 100   | 43  | -   |
| 2012 +         | 2,123,678                         | 248,990,760                        | 28,111,237   | 88,851,483                | 100   | 35  | -   |
| 2013           | 1,647,055                         | 347,697,141                        | 29,055,445   | 146,413,041               | 100   | 42  | -   |
| 2014           | 1,734,546                         | 357,077,348                        | 36,767,436   | 152,308,676               | 100   | 42  | -   |
| 2015 +         | 1,455,029                         | 371,571,160                        | 32,666,704   | 167,837,218               | 100   | 45  | -   |
| 2016           | 1,595,793                         | 372,340,632                        | 27,740,698   | 171,109,243               | 100   | 46  | -   |
| 2017 +         | 1,274,344                         | 415,623,362                        | 25,783,235   | 199,957,371               | 100   | 48  | -   |

### 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)  | Assets                    | (1)   | (2)   | (3)  |
| 2008 +         | \$ -                              | \$ 6,054,907                       | \$ 47,019,246  | \$ 24,187,269             | - %   | 100 % | 39 % |
| 2009           | -                                 | 10,069,177                         | 48,890,402   | 27,103,260                | -   | 100   | 35   |
| 2010           | -                                 | 12,517,903                         | 52,068,716   | 32,173,609                | -   | 100   | 38   |
| 2011           | -                                 | 15,248,883                         | 56,421,727   | 36,807,462                | -   | 100   | 38   |
| 2012 +         | -                                 | 18,410,957                         | 60,215,143   | 42,114,214                | -   | 100   | 39   |
| 2013           | -                                 | 21,467,691                         | 63,106,093   | 49,552,093                | -   | 100   | 45   |
| 2014           | -                                 | 24,443,482                         | 65,739,819   | 57,093,309                | -   | 100   | 50   |
| 2015 +         | -                                 | 28,794,727                         | 68,670,319   | 62,673,098                | -   | 100   | 49   |
| 2016           | -                                 | 31,622,143                         | 72,092,819   | 69,786,157                | -   | 100   | 53   |
| 2017 +         | -                                 | 36,279,130                         | 75,746,636   | 77,776,841                | -   | 100   | 55   |

### Local 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)  | Assets                    | (1)   | (2)  | (3) |
| 2008 +         | \$ 2,279                          | \$ 10,495,474                      | \$ 132,593   | \$ 1,081,515              | 100 %                                       | 10 % | - % |
| 2009           | 3,065                             | 12,395,214                         | 350,181  | 5,601,935                 | 100   | 45   | -   |
| 2010           | 12,433                            | 12,964,889                         | 210,630  | 6,529,374                 | 100   | 50   | -   |
| 2011           | 16,968                            | 13,046,463                         | 295,814  | 6,494,323                 | 100   | 50   | -   |
| 2012 +         | 17,401                            | 13,196,487                         | 540,604  | 6,908,455                 | 100   | 52   | -   |
| 2013           | 17,759                            | 13,940,442                         | 336,339  | 7,657,753                 | 100   | 55   | -   |
| 2014           | 17,778                            | 14,706,680                         | 385,040  | 8,817,782                 | 100   | 60   | -   |
| 2015 +         | 4,398                             | 14,991,823                         | 308,725  | 8,574,196                 | 100   | 57   | -   |
| 2016           | 6,919                             | 15,514,259                         | 292,784  | 9,011,889                 | 100   | 58   | -   |
| 2017 +         | 6,284                             | 19,761,146                         | 310,641  | 14,053,849                | 100   | 71   | -   |

\* After legislated benefit changes for LOPFI members  
+ After changes in actuarial assumptions

***Derivation of Actuarial Gain (Loss)  
Year Ended December 31, 2017  
(LOPFI and Local Plans Combined)***

|      |  |                        |
|------|--|------------------------|
| (1)  | UAAL* at start of year   | \$ 765,630,401         |
| (2)  | Employer normal cost from last valuation                                 | 34,542,403             |
| (3)  | Actual employer contributions  | 91,549,250             |
| (4)  | Interest accrual: (1) x .0775 + [(2)-(3)] x (.0775/2)                    | 57,127,341             |
| (5)  | Expected UAAL before changes: (1) + (2) - (3) + (4)                      | 765,750,895            |
| (6)  | Change from benefit changes*   | 11,345,230             |
| (7)  | Change from revised actuarial assumptions                                | 41,661,930             |
| (8)  | Expected UAAL after changes  | 818,758,055            |
| (9)  | Actual UAAL at end of year   | 826,053,322            |
| (10) | Gain (loss) (8) - (9)  | (7,295,267)            |
| (11) | Gain (loss) as percent of actuarial accrued liabilities at start of year | \$2,623,115,852 (0.3)% |

| <b>Valuation<br/>Date<br/>December 31</b> | <b>Actuarial Gain (Loss) as a Percentage<br/>of Beginning Accrued Liabilities</b> |
|---|---|
| 2008                                      | (12.8) %  |
| 2009                                      | (2.9)   |
| 2010                                      | (0.7)   |
| 2011                                      | (1.9)   |
| 2012                                      | (1.1)   |
| 2013                                      | 0.7   |
| 2014                                      | (0.1)   |
| 2015                                      | (0.3)   |
| 2016                                      | (0.5)   |
| 2017                                      | (0.3)   |

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

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

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

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

***Paid Service.*** Section 24-10-102(13). Covered employment which is half-time employment or more, and for which a minimum dollar amount is paid. For each calendar month in 1981, the minimum is \$500 for the month. For each later calendar year, the \$500 is indexed for inflation (Consumer Price Index). Accordingly, the monthly minimum during 2017 was \$1,382.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## LOPFI

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

#### *Illustration 1*

#### ***FOR PAID SERVICE WHICH IS NOT COVERED BY SOCIAL SECURITY***

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

| Final<br>Average<br>Pay (FAP) <sup>(1)</sup> | LOPFI BENEFIT <sup>(2)</sup> |          |
|--|------------------------------|----------|
|  | \$                           | % of FAP |
| 32 Years of Service <sup>(3)</sup>           |                              |          |
| \$ 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       |
| 28 Years of Service <sup>(3)</sup>           |                              |          |
| \$ 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       |
| 20 Years of Service <sup>(3)</sup>           |                              |          |
| \$ 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 his last 120 months of paid service.

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

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

## LOPFI

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

#### *Illustration 2* <sup>(5)</sup>

#### ***FOR PAID SERVICE WHICH IS COVERED BY SOCIAL SECURITY***

**(The Applicable Benefit Program is Years of Paid Service times:  
1.94% of FAP <sup>(1)</sup> for life, plus 1.0% of FAP <sup>(1)</sup> Temporary to Full  
Social Security Retirement Age)**

| Final<br>Average<br>Pay (FAP) <sup>(1)</sup> | LOPFI Benefit <sup>(3)</sup> |          | Estimated<br>Social<br>Security <sup>(2)</sup> | Estimated Monthly<br>Total |          | Percent of FAP |         |
|--|------------------------------|----------|--|----------------------------|----------|----------------|---------|
|  | To SSRA                      | At SSRA  |  | To SSRA                    | At SSRA  | To SSRA        | At SSRA |
| <b>32 Years of Service <sup>(4)</sup></b>    |                              |          |  |                            |          |                |         |
| \$2,400                                      | \$ 2,258                     | \$ 1,490 | \$ 962   | \$ 2,258                   | \$ 2,452 | 94 %           | 102 %   |
| 3,000  | 2,822                        | 1,862    | 1,070  | 2,822                      | 2,932    | 94             | 98      |
| 3,600  | 3,387                        | 2,235    | 1,179  | 3,387                      | 3,414    | 94             | 95      |
| 4,200  | 3,951                        | 2,607    | 1,285  | 3,951                      | 3,892    | 94             | 93      |
| 4,800  | 4,516                        | 2,980    | 1,394  | 4,516                      | 4,374    | 94             | 91      |
| <b>28 Years of Service <sup>(4)</sup></b>    |                              |          |  |                            |          |                |         |
| \$2,400                                      | \$ 1,976                     | \$ 1,304 | \$ 962   | \$ 1,976                   | \$ 2,266 | 82 %           | 94 %    |
| 3,000  | 2,470                        | 1,630    | 1,070  | 2,470                      | 2,700    | 82             | 90      |
| 3,600  | 2,964                        | 1,956    | 1,179  | 2,964                      | 3,135    | 82             | 87      |
| 4,200  | 3,457                        | 2,281    | 1,285  | 3,457                      | 3,566    | 82             | 85      |
| 4,800  | 3,951                        | 2,607    | 1,394  | 3,951                      | 4,001    | 82             | 83      |
| <b>20 Years of Service <sup>(4)</sup></b>    |                              |          |  |                            |          |                |         |
| \$2,400                                      | \$ 1,411                     | \$ 931   | \$ 962   | \$ 1,411                   | \$ 1,893 | 59 %           | 79 %    |
| 3,000  | 1,764                        | 1,164    | 1,070  | 1,764                      | 2,234    | 59             | 74      |
| 3,600  | 2,117                        | 1,397    | 1,179  | 2,117                      | 2,576    | 59             | 72      |
| 4,200  | 2,470                        | 1,630    | 1,285  | 2,470                      | 2,915    | 59             | 69      |
| 4,800  | 2,822                        | 1,862    | 1,394  | 2,822                      | 3,256    | 59             | 68      |

- (1) "Final Average Pay" means the monthly average of an employee's pays during the period of 36 consecutive months when they were highest, contained within his last 120 months of paid service.
- (2) "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at normal Social Security Retirement Age (SSRA). It does not include any amounts which might be payable to an eligible spouse or children. Final average pay is assumed to be equal to Average Indexed Monthly Earnings. The results assume no Social Security covered earnings after retirement. Note that a member may draw a reduced Social Security benefit as early as age 62. This is an estimate. Individuals can receive an estimate from the Social Security Administration based on their actual earnings history.
- (3) Amounts shown are rounded to the nearest dollar; actual amounts will be calculated to the nearest cent.
- (4) With 28 or more years of service the employee is eligible for normal retirement. With 20 or more years of service the employee is eligible for normal retirement at age 55. With fewer than 20 years, the eligibility age is 60.
- (5) This illustration shows 2018 Social Security estimates for a participant who retired in 2009 at age 56.



## LOPFI

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

#### *Illustration 3 <sup>(5)</sup>*

#### **FOR PAID SERVICE WHICH IS COVERED BY SOCIAL SECURITY**

**(The Applicable Benefit Program is Years of Paid Service times:  
1.94% of FAP <sup>(1)</sup> for life, plus 1.0% of FAP <sup>(1)</sup> Temporary to Full  
Social Security Retirement Age)**

| Final<br>Average<br>Pay (FAP) <sup>(1)</sup> | LOPFI Benefit <sup>(3)</sup> |          | Estimated               | Estimated Monthly |          | Percent of FAP |         |
|--|------------------------------|----------|-------------------------|-------------------|----------|----------------|---------|
|  | To SSRA                      | At SSRA  | Social                  | Total             |          | To SSRA        | At SSRA |
|  |                              |          | Security <sup>(2)</sup> | To SSRA           | At SSRA  |                |         |
| <b>32 Years of Service <sup>(4)</sup></b>    |                              |          |                         |                   |          |                |         |
| \$2,400                                      | \$ 2,258                     | \$ 2,063 | \$ 1,675                | \$ 2,258          | \$ 3,738 | 94 %           | 119 %   |
| 3,000  | 2,822                        | 2,577    | 1,912                   | 2,822             | 4,489    | 94             | 114     |
| 3,600  | 3,387                        | 3,094    | 2,145                   | 3,387             | 5,239    | 94             | 111     |
| 4,200  | 3,951                        | 3,609    | 2,382                   | 3,951             | 5,991    | 94             | 109     |
| 4,800  | 4,516                        | 4,125    | 2,616                   | 4,516             | 6,741    | 94             | 107     |
| <b>28 Years of Service <sup>(4)</sup></b>    |                              |          |                         |                   |          |                |         |
| \$2,400                                      | \$ 1,976                     | \$ 1,805 | \$ 1,675                | \$ 1,976          | \$ 3,480 | 82 %           | 111 %   |
| 3,000  | 2,470                        | 2,256    | 1,912                   | 2,470             | 4,168    | 82             | 106     |
| 3,600  | 2,964                        | 2,708    | 2,145                   | 2,964             | 4,853    | 82             | 103     |
| 4,200  | 3,457                        | 3,157    | 2,382                   | 3,457             | 5,539    | 82             | 101     |
| 4,800  | 3,951                        | 3,609    | 2,616                   | 3,951             | 6,225    | 82             | 99      |
| <b>20 Years of Service <sup>(4)</sup></b>    |                              |          |                         |                   |          |                |         |
| \$2,400                                      | \$ 1,411                     | \$ 1,289 | \$ 1,675                | \$ 1,411          | \$ 2,964 | 59 %           | 94 %    |
| 3,000  | 1,764                        | 1,611    | 1,912                   | 1,764             | 3,523    | 59             | 90      |
| 3,600  | 2,117                        | 1,934    | 2,145                   | 2,117             | 4,079    | 59             | 86      |
| 4,200  | 2,470                        | 2,256    | 2,382                   | 2,470             | 4,638    | 59             | 84      |
| 4,800  | 2,822                        | 2,577    | 2,616                   | 2,822             | 5,193    | 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 his last 120 months of paid service.
- (2) "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at normal Social Security Retirement Age (SSRA). It does not include any amounts which might be payable to an eligible spouse or children. Final average pay is assumed to be equal to Average Indexed Monthly Earnings. The results assume no Social Security covered earnings after retirement. Note that a member may draw a reduced Social Security benefit as early as age 62. This is an estimate. Individuals can receive an estimate from the Social Security Administration based on their actual earnings history.
- (3) Amounts shown are rounded to the nearest dollar; actual amounts will be calculated to the nearest cent.
- (4) With 28 or more years of service the employee is eligible for normal retirement. With 20 or more years of service the employee is eligible for normal retirement at age 55. With fewer than 20 years, the eligibility age is 60.
- (5) This illustration shows 2029 Social Security estimates for a participant who retires in 2018 at age 56. All future benefits are in future dollars.

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

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

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

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

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

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

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

# Arkansas LOcal Police and Fire Retirement System Brief Summary as of December 31, 2017 of LOPFI Coverage for *VOLUNTEER SERVICE*

## Benefits and Conditions Evaluated and/or Considered (Section References are to Arkansas Code of 1987, Including Amendments from 2017 General Assembly Session)

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

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

***Paid Service.*** Section 24-10-102(13). Covered employment which is half-time employment or more, and for which a minimum dollar amount is paid. For each calendar month in 1981, the minimum is \$500 for the month. For each later calendar year, the \$500 is indexed for inflation (Consumer Price Index). Accordingly, the monthly minimum during 2017 was \$1,382.

***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, 2017 valuations was \$6.68 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, 2017 valuations was \$10.83 monthly.

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

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

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

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

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

- (a) The surviving spouse receives an annuity equal to the Option B50 annuity (joint and 50% survivor benefit) computed based upon the deceased member's service record to time of death.
- (b) Each dependent child under age 18 (age 23 if full time student) receives \$15 monthly. The totals for 3 or more children cannot exceed \$40 monthly.

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

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

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

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

## Illustration of Computed Employer Contributions 17.0-Year Closed Amortization Period

LOPFI Paid Service  
(Based on Projected Future Payroll)

| Year Ended<br>December 31, | Illustrative<br>Payroll | Normal<br>Cost | Payment for<br>Amortization<br>of UAL | Computed<br>Employer<br>Rate | Annual<br>Employer<br>Dollar<br>Contribution |
|----------------------------|-------------------------|----------------|---------------------------------------|------------------------------|--|
| 2017                       | \$ 100,000              | 9.64%          | 12.80%                                | 22.44%                       | \$ 22,440                                    |
| 2018                       | 103,250                 | 9.64%          | 12.80%                                | 22.44%                       | 23,169                                       |
| 2019                       | 106,606                 | 9.64%          | 12.80%                                | 22.44%                       | 23,922                                       |
| 2020                       | 110,070                 | 9.64%          | 12.80%                                | 22.44%                       | 24,700                                       |
| 2021                       | 113,648                 | 9.64%          | 12.80%                                | 22.44%                       | 25,503                                       |
| 2022                       | 117,341                 | 9.64%          | 12.80%                                | 22.44%                       | 26,331                                       |
| 2023                       | 121,155                 | 9.64%          | 12.80%                                | 22.44%                       | 27,187                                       |
| 2024                       | 125,092                 | 9.64%          | 12.80%                                | 22.44%                       | 28,071                                       |
| 2025                       | 129,158                 | 9.64%          | 12.80%                                | 22.44%                       | 28,983                                       |
| 2026                       | 133,355                 | 9.64%          | 12.80%                                | 22.44%                       | 29,925                                       |
| 2027                       | 137,689                 | 9.64%          | 12.80%                                | 22.44%                       | 30,898                                       |
| 2028                       | 142,164                 | 9.64%          | 12.80%                                | 22.44%                       | 31,902                                       |
| 2029                       | 146,785                 | 9.64%          | 12.80%                                | 22.44%                       | 32,938                                       |
| 2030                       | 151,555                 | 9.64%          | 12.80%                                | 22.44%                       | 34,009                                       |
| 2031                       | 156,481                 | 9.64%          | 12.80%                                | 22.44%                       | 35,114                                       |
| 2032                       | 161,566                 | 9.64%          | 12.80%                                | 22.44%                       | 36,255                                       |
| 2033                       | 166,817                 | 9.64%          | 12.80%                                | 22.44%                       | 37,434                                       |
| 2034                       | 172,239                 | 9.64%          | 12.80%                                | 22.44%                       | 38,650                                       |
| 2035                       | 177,837                 | 9.64%          | 12.80%                                | 22.44%                       | 39,907                                       |
| 2036                       | 183,616                 | 9.64%          | 0.00%                                 | 9.64%                        | 17,701                                       |
| 2037                       | 189,584                 | 9.64%          | 0.00%                                 | 9.64%                        | 18,276                                       |
| 2038                       | 195,745                 | 9.64%          | 0.00%                                 | 9.64%                        | 18,870                                       |
| 2039                       | 202,107                 | 9.64%          | 0.00%                                 | 9.64%                        | 19,483                                       |
| 2040                       | 208,675                 | 9.64%          | 0.00%                                 | 9.64%                        | 20,116                                       |
| 2041                       | 215,457                 | 9.64%          | 0.00%                                 | 9.64%                        | 20,770                                       |
| 2042                       | 222,460                 | 9.64%          | 0.00%                                 | 9.64%                        | 21,445                                       |
| 2043                       | 229,690                 | 9.64%          | 0.00%                                 | 9.64%                        | 22,142                                       |
| 2044                       | 237,155                 | 9.64%          | 0.00%                                 | 9.64%                        | 22,862                                       |
| 2045                       | 244,862                 | 9.64%          | 0.00%                                 | 9.64%                        | 23,605                                       |

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 16.0-Year Closed Amortization Period

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

| Year Ended<br>December 31, | Basic<br>Benefit<br>Factor@ | Illustrative<br>Monthly<br>Active<br>Member Count | Normal<br>Cost | Payment for<br>Amortization<br>of UAL | Computed<br>Monthly<br>Employer<br>Rate | Annual<br>Employer<br>Dollar<br>Contribution |
|----------------------------|-----------------------------|---|----------------|---------------------------------------|---|--|
| 2017                       | \$ 6.68                     | 10  | \$ 23.90       | \$ 35.10                              | \$ 59.00                                | \$ 7,080                                     |
| 2018                       | 6.85                        | 10  | 24.50          | 35.10                                 | 59.60                                   | 7,152  |
| 2019                       | 7.02                        | 10  | 25.11          | 35.10                                 | 60.21                                   | 7,225  |
| 2020                       | 7.20                        | 10  | 25.74          | 35.10                                 | 60.84                                   | 7,301  |
| 2021                       | 7.38                        | 10  | 26.38          | 35.10                                 | 61.48                                   | 7,378  |
| 2022                       | 7.56                        | 10  | 27.04          | 35.10                                 | 62.14                                   | 7,457  |
| 2023                       | 7.75                        | 10  | 27.72          | 35.10                                 | 62.82                                   | 7,538  |
| 2024                       | 7.94                        | 10  | 28.41          | 35.10                                 | 63.51                                   | 7,621  |
| 2025                       | 8.14                        | 10  | 29.12          | 35.10                                 | 64.22                                   | 7,706  |
| 2026                       | 8.34                        | 10  | 29.85          | 35.10                                 | 64.95                                   | 7,794  |
| 2027                       | 8.55                        | 10  | 30.60          | 35.10                                 | 65.70                                   | 7,884  |
| 2028                       | 8.76                        | 10  | 31.37          | 35.10                                 | 66.47                                   | 7,976  |
| 2029                       | 8.98                        | 10  | 32.15          | 35.10                                 | 67.25                                   | 8,070  |
| 2030                       | 9.20                        | 10  | 32.95          | 35.10                                 | 68.05                                   | 8,166  |
| 2031                       | 9.43                        | 10  | 33.77          | 35.10                                 | 68.87                                   | 8,264  |
| 2032                       | 9.67                        | 10  | 34.61          | 35.10                                 | 69.71                                   | 8,365  |
| 2033                       | 9.91                        | 10  | 35.48          | 35.10                                 | 70.58                                   | 8,470  |
| 2034                       | 10.16                       | 10  | 36.37          | 35.10                                 | 71.47                                   | 8,576  |
| 2035                       | 10.41                       | 10  | 37.28          | 35.10                                 | 72.38                                   | 8,686  |
| 2036                       | 10.67                       | 10  | 38.21          | 0.00                                  | 38.21                                   | 4,585  |
| 2037                       | 10.94                       | 10  | 39.17          | 0.00                                  | 39.17                                   | 4,700  |
| 2038                       | 11.21                       | 10  | 40.15          | 0.00                                  | 40.15                                   | 4,818  |
| 2039                       | 11.49                       | 10  | 41.15          | 0.00                                  | 41.15                                   | 4,938  |
| 2040                       | 11.78                       | 10  | 42.18          | 0.00                                  | 42.18                                   | 5,062  |
| 2041                       | 12.07                       | 10  | 43.23          | 0.00                                  | 43.23                                   | 5,188  |
| 2042                       | 12.37                       | 10  | 44.31          | 0.00                                  | 44.31                                   | 5,317  |
| 2043                       | 12.68                       | 10  | 45.42          | 0.00                                  | 45.42                                   | 5,450  |

@ 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 \$6.68 effective July 1, 2018. 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 7.00% Interest

| Sample<br>Attained<br>Ages | Probability of Dying<br>Next Year* |        | Value at Retirement<br>\$1.00 Monthly for Life |           | Future Life Expectancy (years)* |       |       |       |       |       |
|----------------------------|------------------------------------|--------|--|-----------|---------------------------------|-------|-------|-------|-------|-------|
|                            |                                    |        |  |           | 2017                            |       | 2022  |       | 2027  |       |
|                            | Men                                | Women  | Men  | Women     | Men                             | Women | Men   | Women | Men   | Women |
| 35                         | 0.174%                             | 0.136% | \$ 163.22                                      | \$ 166.15 | 46.22                           | 49.91 | 46.77 | 50.43 | 47.33 | 50.95 |
| 40                         | 0.255%                             | 0.208% | 158.87   | 162.78    | 41.13                           | 44.81 | 41.66 | 45.30 | 42.20 | 45.81 |
| 45                         | 0.368%                             | 0.265% | 153.40   | 158.53    | 36.18                           | 39.81 | 36.70 | 40.29 | 37.22 | 40.78 |
| 50                         | 0.544%                             | 0.339% | 146.54   | 152.89    | 31.38                           | 34.87 | 31.90 | 35.35 | 32.40 | 35.82 |
| 55                         | 0.779%                             | 0.472% | 138.23   | 145.48    | 26.80                           | 30.03 | 27.29 | 30.49 | 27.77 | 30.94 |
| 60                         | 1.083%                             | 0.701% | 128.18   | 136.26    | 22.45                           | 25.38 | 22.89 | 25.79 | 23.33 | 26.23 |
| 65                         | 1.553%                             | 1.050% | 116.18   | 125.01    | 18.36                           | 20.97 | 18.73 | 21.34 | 19.13 | 21.74 |
| 70                         | 2.326%                             | 1.638% | 102.01   | 111.32    | 14.55                           | 16.80 | 14.87 | 17.15 | 15.21 | 17.51 |
| 75                         | 3.719%                             | 2.680% | 85.70  | 95.26     | 11.05                           | 12.94 | 11.34 | 13.27 | 11.64 | 13.59 |
| 80                         | 6.268%                             | 4.570% | 68.14  | 77.54     | 7.98                            | 9.53  | 8.24  | 9.81  | 8.49  | 10.08 |

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

| Sample<br>Attained<br>Ages | Benefit<br>Increasing<br>3.00% Yearly | Portion of Age 55<br>Lives Still Alive | Sample<br>Attained<br>Ages |
|----------------------------|---------------------------------------|--|----------------------------|
| 55                         | \$100                                 | 100 %                                  | 55                         |
| 60                         | 116                                   | 95                                     | 60                         |
| 65                         | 134                                   | 89                                     | 65                         |
| 70                         | 156                                   | 81                                     | 70                         |
| 75                         | 181                                   | 69                                     | 75                         |
| 80                         | 209                                   | 53                                     | 80                         |

## Schedule A-2 Probabilities of Disability Retirement

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

| Sample<br>Ages | Percent Becoming Disabled<br>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<br>Ages | Percent Becoming Disabled<br>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

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

| Retirement<br>Ages | Percents of<br>Active Members Retiring<br>within Next Year |        | Years of<br>Service | Percents of<br>Active Members Retiring<br>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).

## Schedule A-3

### Probabilities of Retirement for Members Eligible to Retire (Concluded)

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

| Retirement<br>Ages | Percents of<br>Active Members Retiring<br>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

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

| Sample<br>Ages | Years of<br>Service | % of Active Members<br>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 (First Used for December 31, 2017 Valuations)

| Sample<br>Ages | Years of<br>Service | % of Active Members<br>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<br>for an Individual Member |                        |                    |                       |
|--|------------------------|--------------------|-----------------------|
| Service<br>Years                                     | Merit and<br>Seniority | Base<br>(Economic) | Increase<br>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%                 |

## Investment Return and Inflation

### Long-Term Expected Return on Plan Assets

Information about the assumed rate of investment return is included in the 2012-2016 five-year experience study. The assumed rate of investment return of 7.0% falls within a reasonable range of the long-term expected rate of return.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the pension plan's target asset allocation as of December 31, 2017, these best estimates are summarized in the following table:

### Asset Allocation

| Asset Class             | Target Allocation | Long-Term Expected<br>Real Rate of Return | Allocation-Weighted<br>Long-Term Expected<br>Real Rate of Return |
|-------------------------|-------------------|---|--|
| Fixed Income            | 27.00%            | 0.78%                                     | 0.21%  |
| Domestic Equity         | 42.00%            | 5.58%                                     | 2.34%  |
| Foreign Equity          | 18.00%            | 7.38%                                     | 1.33%  |
| Alternative Investments | 10.00%            | 6.23%                                     | 0.62%  |
| Cash                    | 3.00%             | 0.00%                                     | 0.00%  |
| <b>Total</b>            | <b>100.00%</b>    |   | <b>4.50%</b>   |
| Expected Inflation      |                   |   | 2.50%  |
| <b>Total Return</b>     |                   |   | <b>7.00%</b>   |

Gabriel, Roeder, Smith & Company does not provide investment advice.

## Investment Return and Inflation (Concluded)

The Trustees of the Social Security system prepare and publish an annual report. Social Security's economists develop a forecast of future CPI-W (for Urban Wage Earners and Clerical Workers). The following table presents their forecasts in the 2017 annual report.

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

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

Source: 2017 Social Security Trustees' Report (p. 9).

# Retirants and Beneficiaries\* Added to and Removed From Rolls Comparative Statement

## LOPFI Paid Service

|                     | Added |                  |     | Removed          |       |                  | End of Year |                  |                                | Average          |                       |   |
|---------------------|-------|------------------|-----|------------------|-------|------------------|-------------|------------------|--------------------------------|------------------|-----------------------|---|
|                     | No.   | Annual Allowance | No. | Annual Allowance | No.   | Annual Allowance | No.         | Annual Allowance | % Increase in Annual Allowance | Annual Allowance | Increase in Allowance | % |
| December 31, 2008   | 120   | \$ 1,896,855     | 6   | \$ 25,908        | 618   | \$ 9,191,906     |             |                  | 25.56                          | \$ 14,874        | 2.40                  |   |
| Survivor of active  | 7     | 50,387           | -   | -                | 75    | 411,798          |             |                  | 13.94                          | 5,491            | 3.31                  |   |
| Survivor of retired | 1     | 4,408            | 2   | 8,225            | 21    | 133,551          |             |                  | (2.78)                         | 6,360            | 1.86                  |   |
| December 31, 2009   | 106   | 2,288,426        | 13  | 136,647          | 711   | 11,343,685       |             |                  | 23.41                          | 15,955           | 7.27                  |   |
| Survivor of active  | 14    | 106,529          | 3   | 13,914           | 86    | 504,413          |             |                  | 22.49                          | 5,865            | 6.81                  |   |
| Survivor of retired | 3     | 26,940           | 1   | 4,677            | 23    | 155,814          |             |                  | 16.67                          | 6,775            | 6.53                  |   |
| December 31, 2010   | 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   | 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   | 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   | 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   | 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   | 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   | 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   | 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)                |   |

\* Includes DROP members.

Continued on next page

# Retirees and Beneficiaries Added to and Removed From Rolls Comparative Statement (Continued)

**LOPFI Volunteer Service**

|                     | Added |                  | Removed |                  | End of Year |                  | % Increase          |   | Average          |                       |
|---------------------|-------|------------------|---------|------------------|-------------|------------------|---------------------|---|------------------|-----------------------|
|                     | No.   | Annual Allowance | No.     | Annual Allowance | No.         | Annual Allowance | in Annual Allowance | % | Annual Allowance | Increase in Allowance |
| December 31, 2008   |       |                  |         |                  |             |                  |                     |   |                  |                       |
| Retirement          | 106   | \$ 134,401       | 9       | \$ 6,415         | 463         | \$ 478,136       | 36.55               |   | \$ 1,033         | 7.94                  |
| Survivor of active  | 15    | 4,235            | 2       | 452              | 54          | 18,898           | 25.03               |   | 350              | (5.15)                |
| Survivor of retired | 6     | 5,511            | 1       | 375              | 24          | 16,294           | 46.03               |   | 679              | 15.67                 |
| December 31, 2009   |       |                  |         |                  |             |                  |                     |   |                  |                       |
| Retirement          | 272   | 359,520          | 14      | 10,099           | 721         | 827,557          | 73.08               |   | 1,148            | 11.13                 |
| Survivor of active  | 14    | 4,482            | 2       | 873              | 66          | 22,507           | 19.10               |   | 341              | (2.57)                |
| Survivor of retired | 13    | 12,309           | 4       | 1,227            | 33          | 27,376           | 68.01               |   | 830              | 22.24                 |
| 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                  |

Continued on next page



# Retirants and Beneficiaries\* Added to and Removed From Rolls

## Comparative Statement (Continued)

### Local Paid Service

|                     | Added |                     | Removed |                     | End of Year |                     | % Increase<br>in Annual<br>Allowance | Average             |                               |
|---------------------|-------|---------------------|---------|---------------------|-------------|---------------------|--------------------------------------|---------------------|-------------------------------|
|                     | No.   | Annual<br>Allowance | No.     | Annual<br>Allowance | No.         | Annual<br>Allowance |                                      | Annual<br>Allowance | Increase in<br>Allowance<br>% |
| December 31, 2008   |       |                     |         |                     |             |                     |                                      |                     |                               |
| Retirement          | 39    | \$ 1,076,014        | 25      | \$ 384,056          | 810         | \$ 16,412,337       | 4.40                                 | \$ 20,262           | 2.60                          |
| Survivor of active  | 3     | 83,382              | -       | -                   | 7           | 124,763             | 201.50                               | 17,823              | 72.29                         |
| Survivor of retired | 18    | 346,417             | 22      | 173,580             | 216         | 2,887,102           | 6.37                                 | 13,366              | 8.33                          |
| December 31, 2009   |       |                     |         |                     |             |                     |                                      |                     |                               |
| Retirement          | 10    | 438,424             | 22      | 292,992             | 798         | 16,557,769          | 0.89                                 | 20,749              | 2.40                          |
| Survivor of active  | 17    | 227,302             | 1       | 1,500               | 23          | 350,565             | 180.98                               | 15,242              | (14.48)                       |
| Survivor of retired | 20    | 286,266             | 29      | 327,986             | 207         | 2,845,382           | (1.45)                               | 13,746              | 2.84                          |
| 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                          |

Continued on next page

\* Includes DROP members.

# Retirants and Beneficiaries Added to and Removed From Rolls

## Comparative Statement (Concluded)

### Local Volunteer Service

|                     | Added |                     | Removed |                     | End of Year |                     | % Increase<br>in Annual<br>Allowance | Average             |                               |
|---------------------|-------|---------------------|---------|---------------------|-------------|---------------------|--------------------------------------|---------------------|-------------------------------|
|                     | No.   | Annual<br>Allowance | No.     | Annual<br>Allowance | No.         | Annual<br>Allowance |                                      | Annual<br>Allowance | Increase in<br>Allowance<br>% |
| December 31, 2008   | 130   | \$ 240,216          | 5       | \$ 7,007            | 526         | \$ 865,274          | 36.90                                | \$ 1,645            | 4.38                          |
| Survivor of active  | 3     | 5,327               | -       | -                   | 5           | 8,701               | 157.89                               | 1,740               | 3.14                          |
| Survivor of retired | 45    | 63,123              | 10      | 12,266              | 156         | 205,941             | 32.79                                | 1,320               | 2.96                          |
| December 31, 2009   | 128   | 196,439             | 20      | 30,294              | 634         | 1,031,419           | 19.20                                | 1,627               | (1.09)                        |
| Survivor of active  | 9     | 12,556              | -       | -                   | 14          | 21,257              | 144.31                               | 1,518               | (12.76)                       |
| Survivor of retired | 43    | 59,514              | 17      | 23,031              | 182         | 242,424             | 17.72                                | 1,332               | 0.91                          |
| December 31, 2010   | 48    | 87,376              | 23      | 34,348              | 659         | 1,084,447           | 5.14                                 | 1,646               | 1.17                          |
| Survivor of active  | 0     | 211                 | -       | -                   | 14          | 21,468              | 1                                    | 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   | 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   | 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   | 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   | 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   | 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   | 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   | 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                          |

A graphic featuring a grid background with a line chart and a bar chart. The line chart shows an overall upward trend with some fluctuations. The bar chart shows varying heights across several categories. The text "Statistical Section" is overlaid in a large, bold, black font.

# Statistical Section

## Statistical Section Summary

### Retirement

Page 124 reflects Demographic Data for active, inactive vested, retirees and survivors as of December 31, 2017. Annualized benefits payable as of December 31, 2017 by Option Type is shown on page 125.

### Schedule of Deductions by Type

Page 126 reflects the last 10 years of Benefits Paid, Refunds to termed contributory members, Administrative Expenses (net of Investment Expenses) and DROP Distributions. Benefits Paid growth is a combination of the growing number of retired LOPFI members as well as the addition of retirees from newly consolidated local plans. Refunds are directly associated with contributory members terminating and withdrawing their member contributions. Page 127 provides a breakdown of benefits paid by type for the last 10 years.

### Schedule of Additions by Source

Page 126 reflects the last 10 years of Member Contributions, Employer Contributions, Local Plan Mergers, Military and Prior Service Purchase; and Investment Income (Loss). Investment income includes the Net Increase (Decrease) in Fair Value of Investments. Member and Employer Contributions growth has occurred due to rising active membership and associated wages reported by LOPFI-covered employer groups. Investment Income (Loss) has a direct correlation to the economy and each Money Managers' investment performance.

### Schedule of Changes in Net Position

Page 126 reflects the last 10 years of Changes in Net Position, which is the difference between Total Additions and Total Deductions.

### Benefit Deductions by Type

Page 127 provides a 10-year history of the dollar amount paid for the various types of retirement.

### Schedules of Retirement Payments

Pages 128-138 present schedules of retirement payments showing type of retirement, option selected by each type of department.

### Participating Employer Groups

Page 139 shows the Top Ten Participating Employers in the plan.

# LOPFI Demographic Data (Excluding Local Plans) As of December 31, 2017

## Active Paid Members

|                                |            |
|--------------------------------|------------|
| Number.....                    | 6,651      |
| Average Age.....               | 39.2 years |
| Average Length of Service..... | 12.5 years |
| Average Annual Salary.....     | \$50,913   |

## Active Volunteer Members

|                                |            |
|--------------------------------|------------|
| Number.....                    | 7,341      |
| Average Age.....               | 41.6 years |
| Average Length of Service..... | 10.5 years |

## Terminated Vested Members / Other

7,514

## Total Retirees and Survivors

|                              |          |
|------------------------------|----------|
| Number.....                  | 5,522    |
| Average Monthly Benefit..... | \$1,042@ |

### 2017 Retirees and Survivors

| Normal                       | Duty Related Disability     |
|------------------------------|-----------------------------|
| Number                       | Number                      |
| 4,520                        | 357                         |
| Average Age                  | Average Age                 |
| 61.7 years                   | 51.5 years                  |
| Average Length of Service    | Average Length of Service   |
| 14.9 years                   | 10.3 years                  |
| Average Monthly Benefit      | Average Monthly Benefit     |
| \$976                        | \$2,671                     |
| Survivors (Death in Service) | Non-Duty Related Disability |
| Number                       | Number                      |
| 275                          | 370                         |
| Average Age                  | Average Age                 |
| 40.2 years                   | 51.5 years                  |
| Average Length of Service    | Average Length of Service   |
| \$269                        | 9 years                     |
| Average Monthly Benefit      | Average Monthly Benefit     |
|                              | \$854                       |

@ Average monthly benefit is \$1,906 and \$95 for paid service members and volunteer service members, respectively.

**LOPFI**  
**Benefit by Type, Last Ten Years**

|                           | 2008              | 2009              | 2010              | 2011              | 2012              | 2013              | 2014              | 2015              | 2016              | 2017               |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| <b>Type of Benefit</b>    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| Age and service benefits: |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| Retirees                  | 19,805,489        | 21,626,643        | 25,651,097        | 30,238,832        | 34,443,325        | 47,799,528        | 55,199,884        | 63,125,113        | 71,239,156        | 82,529,778         |
| Survivors                 | 2,736,446         | 2,971,839         | 3,465,841         | 3,616,128         | 4,108,817         | 6,200,657         | 6,588,171         | 7,044,115         | 7,542,039         | 8,480,895          |
| Death in service benefits | 564,159           | 898,742           | 936,616           | 980,215           | 1,008,201         | 1,097,643         | 1,138,211         | 1,126,015         | 1,164,223         | 1,297,111          |
| Disability benefits:      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| Retirees - duty           | 5,859,132         | 6,453,030         | 7,293,655         | 8,075,405         | 9,051,595         | 9,924,865         | 10,391,624        | 11,603,555        | 12,463,445        | 13,367,050         |
| Retirees - non-duty       | 1,283,033         | 1,680,756         | 2,001,873         | 2,371,096         | 2,645,607         | 2,911,913         | 3,131,886         | 3,417,245         | 3,808,973         | 4,094,343          |
| Survivors                 | 506,442           | 299,158           | 481,592           | 572,584           | 570,491           | 634,652           | 853,962           | 995,993           | 1,035,582         | 1,174,363          |
| <b>Total benefits</b>     | <b>30,754,701</b> | <b>33,930,168</b> | <b>39,830,674</b> | <b>45,854,260</b> | <b>51,828,036</b> | <b>68,569,258</b> | <b>77,303,738</b> | <b>87,312,036</b> | <b>97,253,418</b> | <b>110,943,540</b> |
| Refunds                   | 995,285           | 1,027,093         | 814,866           | 1,097,813         | 1,504,764         | 1,499,210         | 1,425,245         | 1,628,853         | 1,860,721         | 1,448,044          |

Note: Benefit amounts shown above are the annualized monthly benefits in effect on December 31 of each year. Actual benefits paid by type are reflected on page 127.

**LOPFI**  
**Expenses by Type**  
**Last Ten Calendar Years**

| Year | Benefits Paid | Member               |                         |                    | Total Expenses |
|------|---------------|----------------------|-------------------------|--------------------|----------------|
|      |               | Contribution Refunds | Administrative Expenses | DROP Distributions |                |
| 2008 | \$27,671,177  | \$995,285            | \$1,839,547             | \$2,069,403        | \$32,575,412   |
| 2009 | \$30,669,255  | \$1,027,093          | \$1,948,267             | \$3,251,683        | \$36,896,298   |
| 2010 | \$36,586,520  | \$814,866            | \$1,739,807             | \$1,918,136        | \$41,059,329   |
| 2011 | \$41,402,892  | \$1,097,813          | \$1,696,390             | \$2,093,535        | \$46,290,630   |
| 2012 | \$48,234,606  | \$1,504,764          | \$2,083,484             | \$2,451,148        | \$54,274,002   |
| 2013 | \$55,152,120  | \$1,499,210          | \$2,082,784             | \$5,380,916        | \$64,115,030   |
| 2014 | \$70,660,012  | \$1,425,245          | \$2,554,870             | \$6,999,389        | \$81,639,516   |
| 2015 | \$79,109,426  | \$1,628,853          | \$3,059,933             | \$4,937,829        | \$88,736,041   |
| 2016 | \$88,975,265  | \$1,860,721          | \$3,106,088             | \$11,289,357       | \$105,231,431  |
| 2017 | \$98,658,207  | \$1,448,044          | \$3,290,891             | \$8,059,600        | \$111,456,742  |

**LOPFI**  
**Revenues by Source**  
**Last Ten Calendar Years**

| Year | Member Contributions | Employer Contributions | Local Plan                 |                          | Total Income (Loss) |
|------|----------------------|------------------------|----------------------------|--------------------------|---------------------|
|      |                      |                        | Merger / Military Purchase | Investment Income (Loss) |                     |
| 2008 | \$10,371,754         | \$52,911,629           | \$6,635,472                | (\$212,018,946)          | (\$142,100,091)     |
| 2009 | \$14,354,314         | \$54,473,529           | \$15,619,218               | \$123,024,492            | \$207,471,553       |
| 2010 | \$18,621,969         | \$58,942,600           | \$8,279,405                | \$83,227,717             | \$169,071,691       |
| 2011 | \$19,340,191         | \$63,814,398           | \$5,066,225                | \$3,960,803              | \$92,181,617        |
| 2012 | \$19,338,663         | \$70,576,887           | \$2,329,925                | \$119,129,435            | \$211,374,910       |
| 2013 | \$20,169,412         | \$76,454,536           | \$65,205,449               | \$211,487,865            | \$373,317,262       |
| 2014 | \$22,637,069         | \$85,943,953           | \$7,655,795                | \$107,518,419            | \$223,755,236       |
| 2015 | \$21,229,760         | \$90,860,443           | \$11,002,882               | \$2,229,569              | \$125,322,654       |
| 2016 | \$22,247,783         | \$98,532,455           | \$9,800,970                | \$98,810,912             | \$229,392,120       |
| 2017 | \$23,451,952         | \$104,112,452          | \$34,268,967               | \$253,402,809            | \$415,236,180       |

**LOPFI**  
**Changes in Net Position**  
**Last Ten Calendar Years**

| Year | Change in Plan Net Position |
|------|-----------------------------|
| 2008 | \$ (174,675,503)            |
| 2009 | \$ 170,575,255              |
| 2010 | \$ 128,012,362              |
| 2011 | \$ 45,890,987               |
| 2012 | \$ 157,100,908              |
| 2013 | \$ 309,202,232              |
| 2014 | \$ 142,115,720              |
| 2015 | \$ 36,586,613               |
| 2016 | \$ 124,160,689              |
| 2017 | \$ 303,779,438              |

For years 1997 and forward, Investment Income (Loss) includes Net Increase (Decrease) in Fair Value of Investments, Interest, Dividends, and other investment income.

**LOPFI**  
**Benefit Deductions by Type**  
**Last Ten Calendar Years**

| Year | Normal Age & Service | Age & Service - Survivor | Disability   | Disability - Survivor | Total Benefit Payments |
|------|----------------------|--------------------------|--------------|-----------------------|------------------------|
| 2008 | \$17,105,377         | \$3,243,470              | \$6,823,408  | \$498,922             | \$27,671,177           |
| 2009 | \$18,842,923         | \$3,894,023              | \$7,570,781  | \$361,528             | \$30,669,255           |
| 2010 | \$22,567,958         | \$4,771,760              | \$8,808,114  | \$438,688             | \$36,586,520           |
| 2011 | \$25,675,743         | \$5,111,809              | \$10,067,425 | \$547,915             | \$41,402,892           |
| 2012 | \$31,066,686         | \$5,395,501              | \$11,162,781 | \$609,638             | \$48,234,606           |
| 2013 | \$36,078,524         | \$6,079,754              | \$12,343,933 | \$649,909             | \$55,152,120           |
| 2014 | \$47,841,486         | \$8,676,189              | \$13,366,900 | \$775,437             | \$70,660,012           |
| 2015 | \$54,776,884         | \$9,055,428              | \$14,348,172 | \$928,942             | \$79,109,426           |
| 2016 | \$61,944,083         | \$9,882,470              | \$16,045,680 | \$1,103,033           | \$88,975,265           |
| 2017 | \$70,094,581         | \$10,350,865             | \$17,073,901 | \$1,138,860           | \$98,658,206           |



## Paid Police (Excluding Local Plan)

| Monthly Benefit | No. of Retireants | Type of Retirement* |           |            |            |            |           | Option Selected# |            |            |            |
|-----------------|-------------------|---------------------|-----------|------------|------------|------------|-----------|------------------|------------|------------|------------|
|                 |                   | 1                   | 2         | 3          | 4          | 5          | 6         | Life             | Opt. A     | Opt. B     | Opt. C     |
| \$1-500         | 490               | 404                 | 3         | -          | 50         | 11         | 22        | 210              | 93         | 86         | 101        |
| 501-1,000       | 295               | 211                 | 1         | 2          | 40         | 7          | 34        | 123              | 45         | 77         | 50         |
| 1,001-1,500     | 182               | 143                 | 5         | 8          | 14         | 7          | 5         | 87               | 19         | 38         | 38         |
| 1,501-2,000     | 181               | 109                 | 2         | 28         | 24         | 17         | 1         | 91               | 22         | 38         | 30         |
| 2,001-2,500     | 204               | 106                 | 2         | 68         | 10         | 18         | -         | 102              | 22         | 45         | 35         |
| 2,501-3,000     | 161               | 86                  | -         | 51         | 8          | 16         | -         | 83               | 19         | 38         | 21         |
| 3,001-3,500     | 141               | 70                  | -         | 42         | 6          | 23         | -         | 97               | 12         | 23         | 9          |
| 3,501-4,000     | 85                | 42                  | -         | 20         | 4          | 19         | -         | 48               | 6          | 19         | 12         |
| Over \$4,000    | 134               | 93                  | 1         | 12         | 2          | 26         | -         | 87               | 11         | 25         | 11         |
| <b>Total</b>    | <b>1,873</b>      | <b>1,264</b>        | <b>14</b> | <b>231</b> | <b>158</b> | <b>144</b> | <b>62</b> | <b>928</b>       | <b>249</b> | <b>389</b> | <b>307</b> |

\* *Type of Retirement*  
 1. *Normal retirement for age and service*  
 2. *Early retirement for age and service*  
 3. *Duty disability retirement*  
 4. *Non-Duty disability retirement*  
 5. *DROP retirement*  
 6. *Survivor payment*

# *Option Selected at Retirement*  
 Normal - *normal form of annuity for 5 years certain and life thereafter*  
 Opt. A - *75% survivor annuity*  
 Opt. B - *50% survivor annuity*  
 Opt. C - *annuity for 10 years certain and life thereafter*

Gabriel Roeder Smith & Company

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## Paid Fire (Excluding Local Plan) (Continued)

| Monthly Benefit | No. of Retireants | Type of Retirement* |          |            |           |            |           | Option Selected# |            |            |            |
|-----------------|-------------------|---------------------|----------|------------|-----------|------------|-----------|------------------|------------|------------|------------|
|                 |                   | 1                   | 2        | 3          | 4         | 5          | 6         | Life             | Opt. A     | Opt. B     | Opt. C     |
| \$1-500         | 86                | 56                  | -        | -          | 14        | 4          | 12        | 39               | 10         | 27         | 10         |
| 501-1,000       | 104               | 63                  | 1        | -          | 10        | 10         | 20        | 53               | 13         | 27         | 11         |
| 1,001-1,500     | 121               | 64                  | 1        | 7          | 15        | 30         | 4         | 65               | 15         | 24         | 17         |
| 1,501-2,000     | 158               | 98                  | -        | 13         | 12        | 33         | 2         | 84               | 28         | 34         | 12         |
| 2,001-2,500     | 140               | 60                  | 1        | 29         | 8         | 42         | -         | 95               | 12         | 21         | 12         |
| 2,501-3,000     | 110               | 43                  | -        | 29         | 5         | 32         | 1         | 74               | 12         | 16         | 8          |
| 3,001-3,500     | 107               | 59                  | -        | 26         | 6         | 16         | -         | 64               | 10         | 22         | 11         |
| 3,501-4,000     | 64                | 38                  | -        | 15         | -         | 11         | -         | 28               | 9          | 18         | 9          |
| Over \$4,000    | 126               | 89                  | -        | 5          | 4         | 28         | -         | 76               | 5          | 31         | 14         |
| <b>Total</b>    | <b>1,016</b>      | <b>570</b>          | <b>3</b> | <b>124</b> | <b>74</b> | <b>206</b> | <b>39</b> | <b>578</b>       | <b>114</b> | <b>220</b> | <b>104</b> |

\* Type of Retirement

1. Normal retirement for age and service
2. Early retirement for age and service
3. Duty disability retirement
4. Non-Duty disability retirement
5. DROP retirement
6. Survivor payment

- # Option Selected at Retirement
- Normal - normal form of annuity for 5 years certain and life thereafter
  - Opt. A - 75% survivor annuity
  - Opt. B - 50% survivor annuity
  - Opt. C - annuity for 10 years certain and life thereafter

## Volunteer Police (Excluding Local Plan)

(Continued)

| Monthly Benefit | No. of Retirees | Type of Retirement* |          |           |          |           | Option Selected# |           |           |        |
|-----------------|-----------------|---------------------|----------|-----------|----------|-----------|------------------|-----------|-----------|--------|
|                 |                 | 1                   | 2        | 3         | 4        | 5         | Life             | Opt. A    | Opt. B    | Opt. C |
| \$1-50          | 137             | 118                 | -        | -         | 12       | 7         | 58               | 18        | 29        | 32     |
| 51-75           | 11              | 11                  | -        | -         | -        | -         | 1                | 4         | -         | 6      |
| 76-100          | 5               | 5                   | -        | -         | -        | -         | 1                | 2         | 1         | 1      |
| 101-125         | 5               | 5                   | -        | -         | -        | -         | 2                | 2         | -         | 1      |
| 126-150         | 6               | 6                   | -        | -         | -        | -         | 2                | 1         | 1         | 2      |
| 151-175         | 2               | 2                   | -        | -         | -        | -         | -                | 1         | -         | 1      |
| 176-200         | 1               | 1                   | -        | -         | -        | -         | -                | 1         | -         | -      |
| 201-225         | 1               | 1                   | -        | -         | -        | -         | 1                | -         | -         | -      |
| Over \$225      | -               | -                   | -        | -         | -        | -         | -                | -         | -         | -      |
| <b>Total</b>    | <b>168</b>      | <b>149</b>          | <b>-</b> | <b>12</b> | <b>7</b> | <b>65</b> | <b>29</b>        | <b>31</b> | <b>43</b> |        |

\* *Type of Retirement*

1. *Normal retirement for age and service*
2. *Early retirement for age and service*
3. *Duty disability retirement*
4. *Non-Duty disability retirement*
5. *Survivor payment*

# *Option Selected at Retirement*

*Normal - normal form of annuity for 5 years certain and life thereafter*

*Opt. A - 75% survivor annuity*

*Opt. B - 50% survivor annuity*

*Opt. C - annuity for 10 years certain and life thereafter*

## Volunteer Fire (Excluding Local Plan) (Continued)

| Monthly Benefit | No. of Retirees | Type of Retirement* |           |          |            |            | Option Selected# |            |            |            |     |
|-----------------|-----------------|---------------------|-----------|----------|------------|------------|------------------|------------|------------|------------|-----|
|                 |                 | 1                   | 2         | 3        | 4          | 5          | Life             | Opt. A     | Opt. B     | Opt. C     |     |
| \$1-50          | 677             | 482                 | 1         | 1        | 1          | 70         | 123              | 260        | 94         | 198        | 125 |
| 51-75           | 356             | 305                 | 1         | -        | -          | 19         | 31               | 117        | 62         | 62         | 115 |
| 76-100          | 255             | 226                 | 2         | -        | -          | 15         | 12               | 94         | 52         | 36         | 73  |
| 101-125         | 264             | 243                 | 4         | -        | -          | 16         | 1                | 90         | 70         | 29         | 75  |
| 126-150         | 324             | 311                 | 7         | 1        | 5          | -          | -                | 97         | 78         | 37         | 112 |
| 151-175         | 216             | 214                 | 1         | -        | 1          | -          | -                | 62         | 65         | 13         | 76  |
| 176-200         | 218             | 218                 | -         | -        | -          | -          | -                | 85         | 36         | 21         | 76  |
| 201-225         | 112             | 112                 | -         | -        | -          | -          | -                | 43         | 9          | 11         | 49  |
| Over \$225      | 43              | 43                  | -         | -        | -          | -          | -                | 17         | 4          | 3          | 19  |
| <b>Total</b>    | <b>2,465</b>    | <b>2,154</b>        | <b>16</b> | <b>2</b> | <b>167</b> | <b>126</b> | <b>865</b>       | <b>470</b> | <b>410</b> | <b>720</b> |     |

- \* Type of Retirement
1. Normal retirement for age and service
  2. Early retirement for age and service
  3. Duty disability retirement
  4. Non-Duty disability retirement
  5. Survivor payment
- # Option Selected at Retirement
- Normal - normal form of annuity for 5 years certain and life thereafter
- Opt. A - 75% survivor annuity
- Opt. B - 50% survivor annuity
- Opt. C - annuity for 10 years certain and life thereafter

# Schedule of Retirements by Type of Benefit and Department

## LOPFI Paid Police

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017 |  |           | Service at Retirement |           |           |           |           |           |     |
|--|--|-----------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----|
|  |  |           | 0-4#                  | 5-9       | 10-14     | 15-19     | 20-24     | 25-29     | 30+ |
| 01/01/08 - 12/31/08  | Average Monthly Benefit                                | \$ 474    | \$ 859                | \$ 1,218  | \$ 1,581  | \$ 1,639  | \$ 1,499  | \$ 1,837  |     |
|  | Final Average Pay*                                     | \$ 32,235 | \$ 32,524             | \$ 36,536 | \$ 40,407 | \$ 41,602 | \$ 42,257 | \$ 49,064 |     |
|  | Number of Active Retirees                              | 140       | 137                   | 100       | 59        | 76        | 18        | 8         |     |
|  | * Final Average Pay for 43 members was not provided.   |           |                       |           |           |           |           |           |     |
|  | # Includes 10 members whose service was not provided.  |           |                       |           |           |           |           |           |     |
| 01/01/09 - 12/31/09  | Average Monthly Benefit                                | \$ 488    | \$ 941                | \$ 1,375  | \$ 1,847  | \$ 1,882  | \$ 2,070  | \$ 2,206  |     |
|  | Final Average Pay*                                     | \$ 32,283 | \$ 33,848             | \$ 36,828 | \$ 42,390 | \$ 43,187 | \$ 47,249 | \$ 47,248 |     |
|  | Number of Active Retirees                              | 212       | 136                   | 98        | 64        | 82        | 17        | 8         |     |
|  | * Final Average Pay for 57 members was not provided.   |           |                       |           |           |           |           |           |     |
|  | # Includes 20 members whose service was not provided.  |           |                       |           |           |           |           |           |     |
| 01/01/10 - 12/31/10  | Average Monthly Benefit                                | \$ 478    | \$ 950                | \$ 1,413  | \$ 1,847  | \$ 2,114  | \$ 2,223  | \$ 2,430  |     |
|  | Final Average Pay*                                     | \$ 32,438 | \$ 35,396             | \$ 38,251 | \$ 42,582 | \$ 44,648 | \$ 47,145 | \$ 47,128 |     |
|  | Number of Active Retirees                              | 240       | 160                   | 109       | 78        | 92        | 23        | 8         |     |
|  | * Final Average Pay for 95 members was not provided.   |           |                       |           |           |           |           |           |     |
|  | # Includes 91 members whose service was not provided.  |           |                       |           |           |           |           |           |     |
| 01/01/11 - 12/31/11  | Average Monthly Benefit                                | \$ 482    | \$ 1,015              | \$ 1,486  | \$ 1,928  | \$ 2,212  | \$ 2,762  | \$ 2,436  |     |
|  | Final Average Pay*                                     | \$ 33,210 | \$ 36,913             | \$ 39,038 | \$ 44,496 | \$ 46,338 | \$ 54,634 | \$ 46,761 |     |
|  | Number of Active Retirees                              | 263       | 182                   | 119       | 89        | 107       | 41        | 8         |     |
|  | * Final Average Pay for 103 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 100 members whose service was not provided. |           |                       |           |           |           |           |           |     |
| 01/01/12 - 12/31/12  | Average Monthly Benefit                                | \$ 482    | \$ 1,015              | \$ 1,449  | \$ 1,981  | \$ 2,350  | \$ 2,933  | \$ 2,393  |     |
|  | Final Average Pay*                                     | \$ 32,902 | \$ 37,103             | \$ 39,452 | \$ 45,223 | \$ 47,880 | \$ 56,643 | \$ 47,194 |     |
|  | Number of Active Retirees                              | 304       | 207                   | 146       | 108       | 123       | 50        | 7         |     |
|  | * Final Average Pay for 125 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 106 members whose service was not provided. |           |                       |           |           |           |           |           |     |
| 01/01/13 - 12/31/13  | Average Monthly Benefit                                | \$ 494    | \$ 1,023              | \$ 1,483  | \$ 2,027  | \$ 2,397  | \$ 3,210  | \$ 2,648  |     |
|  | Final Average Pay*                                     | \$ 34,064 | \$ 38,056             | \$ 41,080 | \$ 46,684 | \$ 48,336 | \$ 60,635 | \$ 52,014 |     |
|  | Number of Active Retirees                              | 346       | 237                   | 167       | 124       | 133       | 82        | 9         |     |
|  | * Final Average Pay for 142 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 117 members whose service was not provided. |           |                       |           |           |           |           |           |     |
| 01/01/14 - 12/31/14  | Average Monthly Benefit                                | \$ 518    | \$ 1,034              | \$ 1,516  | \$ 2,102  | \$ 2,512  | \$ 3,422  | \$ 2,706  |     |
|  | Final Average Pay*                                     | \$ 35,213 | \$ 38,821             | \$ 42,243 | \$ 48,478 | \$ 50,713 | \$ 65,343 | \$ 52,488 |     |
|  | Number of Active Retirees                              | 368       | 255                   | 188       | 149       | 154       | 110       | 9         |     |
|  | * Final Average Pay for 161 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 127 members whose service was not provided. |           |                       |           |           |           |           |           |     |
| 01/01/15 - 12/31/15  | Average Monthly Benefit                                | \$ 541    | \$ 1,042              | \$ 1,609  | \$ 2,122  | \$ 2,605  | \$ 3,597  | \$ 2,929  |     |
|  | Final Average Pay*                                     | \$ 36,115 | \$ 39,441             | \$ 45,483 | \$ 49,372 | \$ 52,736 | \$ 65,597 | \$ 57,992 |     |
|  | Number of Active Retirees                              | 426       | 283                   | 224       | 164       | 185       | 146       | 12        |     |
|  | * Final Average Pay for 179 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 137 members whose service was not provided. |           |                       |           |           |           |           |           |     |
| 01/01/16 - 12/31/16  | Average Monthly Benefit                                | \$ 540    | \$ 1,073              | \$ 1,667  | \$ 2,168  | \$ 2,708  | \$ 3,676  | \$ 3,088  |     |
|  | Final Average Pay*                                     | \$ 37,515 | \$ 39,959             | \$ 47,726 | \$ 50,490 | \$ 54,517 | \$ 67,410 | \$ 59,390 |     |
|  | Number of Active Retirees                              | 479       | 308                   | 275       | 178       | 220       | 178       | 14        |     |
|  | * Final Average Pay for 215 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 147 members whose service was not provided. |           |                       |           |           |           |           |           |     |
| 01/01/17 - 12/31/17  | Average Monthly Benefit                                | \$ 537    | \$ 1,084              | \$ 1,699  | \$ 2,192  | \$ 2,800  | \$ 3,779  | \$ 3,340  |     |
|  | Final Average Pay*                                     | \$ 38,860 | \$ 40,588             | \$ 48,874 | \$ 50,955 | \$ 55,378 | \$ 68,000 | \$ 63,588 |     |
|  | Number of Active Retirees                              | 542       | 329                   | 333       | 199       | 245       | 209       | 16        |     |
|  | * Final Average Pay for 237 members was not provided.  |           |                       |           |           |           |           |           |     |
|  | # Includes 166 members whose service was not provided. |           |                       |           |           |           |           |           |     |

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Continued on next page

# Schedule of Retirements by Type of Benefit and Department

(Continued)

## LOPFI Paid Fire

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017   |                           | Service at Retirement |           |           |           |           |           |           |
|--|---------------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|  |                           | 0-4#                  | 5-9       | 10-14     | 15-19     | 20-24     | 25-29     | 30+       |
| 01/01/08 - 12/31/08  | Average Monthly Benefit   | \$ 871                | \$ 1,464  | \$ 1,447  | \$ 1,742  | \$ 1,477  | \$ 2,522  | \$ 1,469  |
|  | Final Average Pay*        | \$ 38,088             | \$ 36,763 | \$ 38,317 | \$ 40,619 | \$ 45,494 | \$ 56,500 | \$ 31,572 |
|  | Number of Active Retirees | 36                    | 33        | 44        | 24        | 25        | 4         | 5         |
| * Final Average Pay for 12 members was not provided.<br># Includes 7 members whose service was not provided.   |                           |                       |           |           |           |           |           |           |
| 01/01/09 - 12/31/09  | Average Monthly Benefit   | \$ 782                | \$ 1,513  | \$ 1,695  | \$ 2,089  | \$ 1,920  | \$ 3,127  | \$ 1,670  |
|  | Final Average Pay*        | \$ 38,776             | \$ 40,569 | \$ 38,456 | \$ 41,916 | \$ 46,016 | \$ 57,664 | \$ 37,129 |
|  | Number of Active Retirees | 59                    | 38        | 39        | 27        | 27        | 7         | 5         |
| * Final Average Pay for 23 members was not provided.<br># Includes 12 members whose service was not provided.  |                           |                       |           |           |           |           |           |           |
| 01/01/10 - 12/31/10  | Average Monthly Benefit   | \$ 833                | \$ 1,529  | \$ 1,654  | \$ 2,249  | \$ 1,983  | \$ 2,927  | \$ 1,790  |
|  | Final Average Pay*        | \$ 40,455             | \$ 41,349 | \$ 38,642 | \$ 44,531 | \$ 47,090 | \$ 56,912 | \$ 34,567 |
|  | Number of Active Retirees | 65                    | 41        | 46        | 28        | 42        | 17        | 5         |
| * Final Average Pay for 40 members was not provided.<br># Includes 41 members whose service was not provided.  |                           |                       |           |           |           |           |           |           |
| 01/01/11 - 12/31/11  | Average Monthly Benefit   | \$ 800                | \$ 1,509  | \$ 1,651  | \$ 2,287  | \$ 2,166  | \$ 3,269  | \$ 1,832  |
|  | Final Average Pay*        | \$ 40,532             | \$ 43,674 | \$ 42,089 | \$ 45,855 | \$ 47,735 | \$ 59,494 | \$ 34,235 |
|  | Number of Active Retirees | 81                    | 52        | 61        | 37        | 56        | 47        | 5         |
| * Final Average Pay for 47 members was not provided.<br># Includes 49 members whose service was not provided.  |                           |                       |           |           |           |           |           |           |
| 01/01/12 - 12/31/12  | Average Monthly Benefit   | \$ 807                | \$ 1,339  | \$ 1,696  | \$ 2,261  | \$ 2,266  | \$ 3,287  | \$ 2,118  |
|  | Final Average Pay*        | \$ 42,036             | \$ 47,251 | \$ 43,525 | \$ 49,422 | \$ 48,163 | \$ 58,761 | \$ 41,705 |
|  | Number of Active Retirees | 92                    | 85        | 71        | 54        | 66        | 62        | 6         |
| * Final Average Pay for 72 members was not provided.<br># Includes 52 members whose service was not provided.  |                           |                       |           |           |           |           |           |           |
| 01/01/13 - 12/31/13  | Average Monthly Benefit   | \$ 769                | \$ 1,376  | \$ 1,692  | \$ 2,300  | \$ 2,349  | \$ 3,326  | \$ 3,193  |
|  | Final Average Pay*        | \$ 41,955             | \$ 49,217 | \$ 46,334 | \$ 50,471 | \$ 49,392 | \$ 59,981 | \$ 58,426 |
|  | Number of Active Retirees | 102                   | 100       | 89        | 71        | 80        | 96        | 10        |
| * Final Average Pay for 88 members was not provided.<br># Includes 59 members whose service was not provided.  |                           |                       |           |           |           |           |           |           |
| 01/01/14 - 12/31/14  | Average Monthly Benefit   | \$ 823                | \$ 1,392  | \$ 1,658  | \$ 2,298  | \$ 2,433  | \$ 3,388  | \$ 3,891  |
|  | Final Average Pay*        | \$ 42,470             | \$ 49,034 | \$ 49,455 | \$ 51,139 | \$ 50,982 | \$ 60,997 | \$ 73,019 |
|  | Number of Active Retirees | 116                   | 108       | 114       | 87        | 107       | 132       | 14        |
| * Final Average Pay for 111 members was not provided.<br># Includes 68 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/15 - 12/31/15  | Average Monthly Benefit   | \$ 868                | \$ 1,448  | \$ 1,691  | \$ 2,264  | \$ 2,475  | \$ 3,541  | \$ 4,041  |
|  | Final Average Pay*        | \$ 42,852             | \$ 49,598 | \$ 51,452 | \$ 54,020 | \$ 52,292 | \$ 62,555 | \$ 74,880 |
|  | Number of Active Retirees | 126                   | 116       | 136       | 103       | 113       | 162       | 17        |
| * Final Average Pay for 109 members was not provided.<br># Includes 73 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/16 - 12/31/16  | Average Monthly Benefit   | \$ 909                | \$ 1,466  | \$ 1,693  | \$ 2,293  | \$ 2,600  | \$ 3,618  | \$ 4,041  |
|  | Final Average Pay*        | \$ 43,242             | \$ 48,514 | \$ 53,078 | \$ 53,664 | \$ 53,194 | \$ 63,655 | \$ 75,792 |
|  | Number of Active Retirees | 138                   | 128       | 165       | 115       | 127       | 202       | 21        |
| * Final Average Pay for 138 members was not provided.<br># Includes 79 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/17 - 12/31/17  | Average Monthly Benefit   | \$ 883                | \$ 1,482  | \$ 1,755  | \$ 2,388  | \$ 2,676  | \$ 3,673  | \$ 4,096  |
|  | Final Average Pay*        | \$ 44,010             | \$ 48,778 | \$ 54,274 | \$ 54,487 | \$ 54,654 | \$ 64,229 | \$ 77,794 |
|  | Number of Active Retirees | 158                   | 131       | 197       | 126       | 147       | 235       | 22        |
| * Final Average Pay for 146 members was not provided.<br># Includes 85 members whose service was not provided. |                           |                       |           |           |           |           |           |           |

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# Schedule of Retirements by Type of Benefit and Department

(Continued)

## LOPFI Volunteer Police

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017 |   |          | Service at Retirement                                 |       |       |       |        |        |        |        |
|--|---|----------|---|-------|-------|-------|--------|--------|--------|--------|
|  |   |          | 0-4   | 5-9   | 10-14 | 15-19 | 20-24  | 25-29  | 30+    |        |
| 01/01/08   | - | 12/31/08 | Average Monthly Benefit                               | \$ 10 | \$ 35 | \$ -  | \$ 84  | \$ -   | \$ 148 | \$ -   |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 5     | 5     | -     | 2      | -      | 2      | -      |
| 01/01/09   | - | 12/31/09 | Average Monthly Benefit                               | \$ 12 | \$ 36 | \$ -  | \$ 89  | \$ -   | \$ 153 | \$ -   |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 8     | 5     | -     | 3      | -      | 2      | -      |
| 01/01/10   | - | 12/31/10 | Average Monthly Benefit                               | \$ 12 | \$ 38 | \$ 71 | \$ 103 | \$ -   | \$ 157 | \$ 201 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 13    | 5     | 2     | 2      | -      | 2      | 1      |
| 01/01/11   | - | 12/31/11 | Average Monthly Benefit                               | \$ 11 | \$ 38 | \$ 71 | \$ 106 | \$ -   | \$ 162 | \$ 207 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 20    | 9     | 2     | 2      | -      | 2      | 1      |
|  |   |          | # Includes 1 member whose service was not provided.   |       |       |       |        |        |        |        |
| 01/01/12   | - | 12/31/12 | Average Monthly Benefit                               | \$ 10 | \$ 36 | \$ 74 | \$ 109 | \$ 122 | \$ 167 | \$ 213 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 34    | 15    | 2     | 2      | 1      | 2      | 1      |
|  |   |          | # Includes 2 members whose service was not provided.  |       |       |       |        |        |        |        |
| 01/01/13   | - | 12/31/13 | Average Monthly Benefit                               | \$ 10 | \$ 39 | \$ 76 | \$ 109 | \$ 123 | \$ 172 | \$ 220 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 50    | 18    | 2     | 4      | 2      | 2      | 1      |
|  |   |          | # Includes 3 members whose service was not provided.  |       |       |       |        |        |        |        |
| 01/01/14   | - | 12/31/14 | Average Monthly Benefit                               | \$ 10 | \$ 40 | \$ 76 | \$ 111 | \$ 135 | \$ 177 | \$ 173 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 67    | 21    | 3     | 4      | 3      | 2      | 2      |
|  |   |          | # Includes 9 members whose service was not provided.  |       |       |       |        |        |        |        |
| 01/01/15   | - | 12/31/15 | Average Monthly Benefit                               | \$ 11 | \$ 42 | \$ 74 | \$ 113 | \$ 139 | \$ 182 | \$ 119 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 79    | 24    | 5     | 7      | 4      | 2      | 1      |
|  |   |          | # Includes 13 members whose service was not provided. |       |       |       |        |        |        |        |
| 01/01/16   | - | 12/31/16 | Average Monthly Benefit                               | \$ 12 | \$ 44 | \$ 71 | \$ 116 | \$ 142 | \$ 188 | \$ 123 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 89    | 31    | 6     | 7      | 4      | 2      | 1      |
|  |   |          | # Includes 14 members whose service was not provided. |       |       |       |        |        |        |        |
| 01/01/17   | - | 12/31/17 | Average Monthly Benefit                               | \$ 12 | \$ 45 | \$ 74 | \$ 120 | \$ 146 | \$ 193 | \$ 127 |
|  |   |          | Final Average Pay                                     | N/A   | N/A   | N/A   | N/A    | N/A    | N/A    | N/A    |
|  |   |          | Number of Active Retirees                             | 113   | 34    | 7     | 7      | 4      | 2      | 1      |
|  |   |          | # Includes 16 members whose service was not provided. |       |       |       |        |        |        |        |

Gabriel Roeder Smith & Company

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# Schedule of Retirements by Type of Benefit and Department

(Continued)

## LOPFI Volunteer Fire

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017 |                           |       | Service at Retirement |       |        |        |        |        |     |
|--|---------------------------|-------|-----------------------|-------|--------|--------|--------|--------|-----|
|  |                           |       | 0-4#                  | 5-9   | 10-14  | 15-19  | 20-24  | 25-29  | 30+ |
| 01/01/08 - 12/31/08  | Average Monthly Benefit   | \$ 21 | \$ 37                 | \$ 60 | \$ 82  | \$ 106 | \$ 139 | \$ 166 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 49    | 92                    | 95    | 83     | 135    | 49     | 24     |     |
| # Includes 20 members whose service was not provided.              |                           |       |                       |       |        |        |        |        |     |
| 01/01/09 - 12/31/09  | Average Monthly Benefit   | \$ 34 | \$ 42                 | \$ 65 | \$ 93  | \$ 114 | \$ 147 | \$ 173 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 139   | 93                    | 112   | 109    | 191    | 106    | 52     |     |
| # Includes 46 members whose service was not provided.              |                           |       |                       |       |        |        |        |        |     |
| 01/01/10 - 12/31/10  | Average Monthly Benefit   | \$ 36 | \$ 42                 | \$ 66 | \$ 95  | \$ 116 | \$ 151 | \$ 177 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 172   | 128                   | 140   | 118    | 227    | 127    | 67     |     |
| # Includes 121 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/11 - 12/31/11  | Average Monthly Benefit   | \$ 38 | \$ 43                 | \$ 68 | \$ 98  | \$ 119 | \$ 155 | \$ 182 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 223   | 166                   | 162   | 145    | 252    | 153    | 81     |     |
| # Includes 155 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/12 - 12/31/12  | Average Monthly Benefit   | \$ 36 | \$ 44                 | \$ 70 | \$ 100 | \$ 122 | \$ 159 | \$ 187 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 285   | 198                   | 187   | 154    | 284    | 177    | 89     |     |
| # Includes 177 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/13 - 12/31/13  | Average Monthly Benefit   | \$ 38 | \$ 45                 | \$ 72 | \$ 103 | \$ 126 | \$ 162 | \$ 192 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 355   | 232                   | 221   | 169    | 311    | 208    | 100    |     |
| # Includes 213 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/14 - 12/31/14  | Average Monthly Benefit   | \$ 36 | \$ 46                 | \$ 74 | \$ 106 | \$ 129 | \$ 166 | \$ 197 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 417   | 264                   | 251   | 188    | 349    | 235    | 106    |     |
| # Includes 230 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/15 - 12/31/15  | Average Monthly Benefit   | \$ 36 | \$ 47                 | \$ 76 | \$ 109 | \$ 132 | \$ 170 | \$ 202 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 466   | 301                   | 275   | 202    | 392    | 265    | 128    |     |
| # Includes 248 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/16 - 12/31/16  | Average Monthly Benefit   | \$ 37 | \$ 48                 | \$ 77 | \$ 111 | \$ 136 | \$ 174 | \$ 207 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 533   | 337                   | 288   | 215    | 417    | 288    | 140    |     |
| # Includes 279 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |
| 01/01/17 - 12/31/17  | Average Monthly Benefit   | \$ 37 | \$ 49                 | \$ 79 | \$ 114 | \$ 139 | \$ 179 | \$ 210 |     |
|  | Final Average Pay         | N/A   | N/A                   | N/A   | N/A    | N/A    | N/A    | N/A    |     |
|  | Number of Active Retirees | 602   | 389                   | 312   | 244    | 441    | 312    | 165    |     |
| # Includes 308 members whose service was not provided.             |                           |       |                       |       |        |        |        |        |     |



# Schedule of Retirements by Type of Benefit and Department

(Continued)

## Local Plan Paid Police

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017  |                           |           | Service at Retirement |           |           |           |           |           |     |
|---|---------------------------|-----------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----|
|   |                           |           | 0-4#                  | 5-9       | 10-14     | 15-19     | 20-24     | 25-29     | 30+ |
| 01/01/08 - 12/31/08   | Average Monthly Benefit   | \$ 927    | \$ 1,427              | \$ 1,293  | \$ 1,589  | \$ 1,767  | \$ 1,715  | \$ 1,373  |     |
|   | Final Average Pay         | \$ 34,880 | \$ 17,949             | \$ 25,647 | \$ 34,232 | \$ 40,382 | \$ 41,303 | \$ 47,486 |     |
|   | Number of Active Retirees | 73        | 3                     | 11        | 18        | 103       | 111       | 135       |     |
| * Final Average Pay for 293 members was not provided.<br># Includes 70 members whose service was not provided.  |                           |           |                       |           |           |           |           |           |     |
| 01/01/09 - 12/31/09   | Average Monthly Benefit   | \$ 1,065  | \$ 1,470              | \$ 1,357  | \$ 1,705  | \$ 1,806  | \$ 1,824  | \$ 1,558  |     |
|   | Final Average Pay         | \$ 31,815 | \$ 17,949             | \$ 25,216 | \$ 35,739 | \$ 41,361 | \$ 47,748 | \$ 45,432 |     |
|   | Number of Active Retirees | 154       | 3                     | 8         | 12        | 95        | 95        | 95        |     |
| * Final Average Pay for 303 members was not provided.<br># Includes 80 members whose service was not provided.  |                           |           |                       |           |           |           |           |           |     |
| 01/01/10 - 12/31/10   | Average Monthly Benefit   | \$ 1,099  | \$ 1,434              | \$ 1,573  | \$ 1,899  | \$ 1,775  | \$ 1,900  | \$ 1,655  |     |
|   | Final Average Pay         | \$ 53,479 | \$ 17,949             | \$ 25,216 | \$ 35,739 | \$ 41,371 | \$ 47,606 | \$ 43,606 |     |
|   | Number of Active Retirees | 175       | 7                     | 11        | 26        | 127       | 97        | 89        |     |
| * Final Average Pay for 388 members was not provided.<br># Includes 175 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/11 - 12/31/11   | Average Monthly Benefit   | \$ 1,131  | \$ 1,469              | \$ 1,527  | \$ 1,918  | \$ 1,798  | \$ 1,942  | \$ 1,740  |     |
|   | Final Average Pay         | \$ 57,053 | \$ 17,949             | \$ 25,216 | \$ 35,739 | \$ 41,396 | \$ 57,958 | \$ 43,738 |     |
|   | Number of Active Retirees | 179       | 7                     | 10        | 26        | 127       | 98        | 84        |     |
| * Final Average Pay for 386 members was not provided.<br># Includes 179 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/12 - 12/31/12   | Average Monthly Benefit   | \$ 1,345  | \$ 1,504              | \$ 1,534  | \$ 1,940  | \$ 1,825  | \$ 1,989  | \$ 1,804  |     |
|   | Final Average Pay         | \$ 83,946 | \$ 17,949             | \$ 25,216 | \$ 35,739 | \$ 40,886 | \$ 58,349 | \$ 45,533 |     |
|   | Number of Active Retirees | 214       | 7                     | 10        | 26        | 125       | 96        | 84        |     |
| * Final Average Pay for 417 members was not provided.<br># Includes 214 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/13 - 12/31/13   | Average Monthly Benefit   | \$ 1,754  | \$ 1,541              | \$ 1,582  | \$ 1,910  | \$ 1,850  | \$ 2,030  | \$ 1,837  |     |
|   | Final Average Pay         | \$ 83,946 | \$ 17,949             | \$ 26,323 | \$ 35,739 | \$ 40,846 | \$ 57,784 | \$ 45,431 |     |
|   | Number of Active Retirees | 516       | 7                     | 8         | 25        | 122       | 97        | 82        |     |
| * Final Average Pay for 715 members was not provided.<br># Includes 516 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/14 - 12/31/14   | Average Monthly Benefit   | \$ 1,783  | \$ 1,579              | \$ 1,595  | \$ 1,902  | \$ 1,873  | \$ 2,063  | \$ 1,908  |     |
|   | Final Average Pay         | \$ 78,444 | \$ 17,949             | \$ 26,323 | \$ 35,739 | \$ 41,538 | \$ 57,784 | \$ 42,165 |     |
|   | Number of Active Retirees | 539       | 7                     | 7         | 23        | 119       | 96        | 78        |     |
| * Final Average Pay for 712 members was not provided.<br># Includes 539 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/15 - 12/31/15   | Average Monthly Benefit   | \$ 1,841  | \$ 1,617              | \$ 1,600  | \$ 1,926  | \$ 1,946  | \$ 2,160  | \$ 2,019  |     |
|   | Final Average Pay         | \$ 66,259 | \$ 17,949             | \$ 26,323 | \$ 35,739 | \$ 40,817 | \$ 57,726 | \$ 43,380 |     |
|   | Number of Active Retirees | 564       | 7                     | 7         | 23        | 117       | 94        | 70        |     |
| * Final Average Pay for 727 members was not provided.<br># Includes 564 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/16 - 12/31/16   | Average Monthly Benefit   | \$ 1,874  | \$ 1,679              | \$ 1,606  | \$ 1,951  | \$ 1,964  | \$ 2,222  | \$ 2,121  |     |
|   | Final Average Pay         | \$ 65,055 | \$ 17,949             | \$ 26,323 | \$ 35,739 | \$ 40,822 | \$ 41,005 | \$ 45,416 |     |
|   | Number of Active Retirees | 552       | 6                     | 7         | 23        | 118       | 90        | 63        |     |
| * Final Average Pay for 703 members was not provided.<br># Includes 552 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |
| 01/01/17 - 12/31/17   | Average Monthly Benefit   | \$ 1,921  | \$ 1,707              | \$ 1,757  | \$ 1,977  | \$ 1,989  | \$ 2,276  | \$ 2,134  |     |
|   | Final Average Pay         | \$ 57,960 | \$ 17,949             | \$ 27,104 | \$ 35,739 | \$ 40,864 | \$ 41,038 | \$ 45,719 |     |
|   | Number of Active Retirees | 642       | 5                     | 6         | 23        | 117       | 88        | 62        |     |
| * Final Average Pay for 792 members was not provided.<br># Includes 642 members whose service was not provided. |                           |           |                       |           |           |           |           |           |     |

Gabriel Roeder Smith & Company

Continued on next page

# Schedule of Retirements by Type of Benefit and Department

(Continued)

## Local Plan Paid Fire

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017  |                           | Service at Retirement |           |           |           |           |           |           |
|---|---------------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|   |                           | 0-4#                  | 5-9       | 10-14     | 15-19     | 20-24     | 25-29     | 30+       |
| 01/01/08 - 12/31/08   | Average Monthly Benefit   | \$ 1,423              | \$ 3,056  | \$ 1,796  | \$ 1,535  | \$ 1,666  | \$ 1,713  | \$ 1,685  |
|   | Final Average Pay         | \$ 25,727             | \$ 39,805 | \$ 40,394 | \$ 28,122 | \$ 34,252 | \$ 38,941 | \$ 43,016 |
|   | Number of Active Retirees | 118                   | 1         | 2         | 13        | 92        | 130       | 223       |
| * Final Average Pay for 266 members was not provided.<br># Includes 114 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/09 - 12/31/09   | Average Monthly Benefit   | \$ 1,442              | \$ 3,056  | \$ 2,285  | \$ 1,616  | \$ 1,695  | \$ 1,770  | \$ 1,899  |
|   | Final Average Pay         | \$ 29,800             | \$ 43,364 | \$ 53,299 | \$ 28,122 | \$ 34,356 | \$ 39,717 | \$ 43,633 |
|   | Number of Active Retirees | 192                   | 1         | 1         | 12        | 80        | 119       | 161       |
| * Final Average Pay for 259 members was not provided.<br># Includes 118 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/10 - 12/31/10   | Average Monthly Benefit   | \$ 1,511              | \$ 3,056  | \$ 1,174  | \$ 1,614  | \$ 1,603  | \$ 1,808  | \$ 1,962  |
|   | Final Average Pay         | \$ 31,565             | \$ 38,605 | \$ 56,362 | \$ 28,122 | \$ 34,536 | \$ 39,453 | \$ 43,792 |
|   | Number of Active Retirees | 216                   | 1         | 3         | 14        | 97        | 123       | 165       |
| * Final Average Pay for 340 members was not provided.<br># Includes 211 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/11 - 12/31/11   | Average Monthly Benefit   | \$ 1,528              | \$ 3,056  | \$ 1,278  | \$ 1,637  | \$ 1,611  | \$ 1,869  | \$ 2,047  |
|   | Final Average Pay         | \$ 31,833             | \$ 38,605 | \$ 53,846 | \$ 28,122 | \$ 34,630 | \$ 39,120 | \$ 44,768 |
|   | Number of Active Retirees | 240                   | 1         | 3         | 14        | 97        | 120       | 162       |
| * Final Average Pay for 356 members was not provided.<br># Includes 235 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/12 - 12/31/12   | Average Monthly Benefit   | \$ 1,555              | \$ 3,056  | \$ 1,316  | \$ 1,662  | \$ 1,645  | \$ 1,906  | \$ 2,106  |
|   | Final Average Pay         | \$ 32,949             | \$ 38,605 | \$ 51,831 | \$ 28,122 | \$ 35,205 | \$ 39,430 | \$ 45,236 |
|   | Number of Active Retirees | 235                   | 1         | 3         | 14        | 95        | 121       | 155       |
| * Final Average Pay for 348 members was not provided.<br># Includes 230 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/13 - 12/31/13   | Average Monthly Benefit   | \$ 1,730              | \$ 3,056  | \$ 1,356  | \$ 1,687  | \$ 1,672  | \$ 1,940  | \$ 2,187  |
|   | Final Average Pay         | \$ 34,420             | \$ 38,605 | \$ 60,732 | \$ 28,122 | \$ 35,075 | \$ 39,114 | \$ 44,957 |
|   | Number of Active Retirees | 317                   | 1         | 3         | 14        | 93        | 119       | 154       |
| * Final Average Pay for 426 members was not provided.<br># Includes 312 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/14 - 12/31/14   | Average Monthly Benefit   | \$ 1,741              | \$ 3,056  | \$ 1,397  | \$ 1,712  | \$ 1,692  | \$ 1,964  | \$ 2,278  |
|   | Final Average Pay         | \$ 35,636             | \$ 38,605 | \$ -      | \$ 28,122 | \$ 34,999 | \$ 38,021 | \$ 44,586 |
|   | Number of Active Retirees | 317                   | 1         | 3         | 14        | 92        | 117       | 147       |
| * Final Average Pay for 420 members was not provided.<br># Includes 312 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/15 - 12/31/15   | Average Monthly Benefit   | \$ 1,718              | \$ 3,056  | \$ 1,439  | \$ 1,739  | \$ 1,742  | \$ 2,043  | \$ 2,287  |
|   | Final Average Pay         | \$ 36,012             | \$ 38,605 | \$ 28,248 | \$ 28,122 | \$ 35,052 | \$ 38,973 | \$ 44,586 |
|   | Number of Active Retirees | 337                   | 1         | 3         | 14        | 88        | 119       | 140       |
| * Final Average Pay for 441 members was not provided.<br># Includes 333 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/16 - 12/31/16   | Average Monthly Benefit   | \$ 1,704              | \$ 3,056  | \$ 1,482  | \$ 1,766  | \$ 1,780  | \$ 2,035  | \$ 2,309  |
|   | Final Average Pay         | \$ 35,607             | \$ 38,605 | \$ 28,248 | \$ 28,122 | \$ 35,213 | \$ 39,109 | \$ 44,929 |
|   | Number of Active Retirees | 368                   | 1         | 3         | 14        | 85        | 113       | 133       |
| * Final Average Pay for 460 members was not provided.<br># Includes 364 members whose service was not provided. |                           |                       |           |           |           |           |           |           |
| 01/01/17 - 12/31/17   | Average Monthly Benefit   | \$ 1,755              | \$ 3,056  | \$ 1,526  | \$ 1,772  | \$ 1,808  | \$ 2,095  | \$ 2,392  |
|   | Final Average Pay         | \$ 36,053             | \$ 38,605 | \$ 28,248 | \$ 28,915 | \$ 35,213 | \$ 39,575 | \$ 45,515 |
|   | Number of Active Retirees | 416                   | 1         | 3         | 13        | 84        | 107       | 131       |
| * Final Average Pay for 503 members was not provided.<br># Includes 412 members whose service was not provided. |                           |                       |           |           |           |           |           |           |

Gabriel Roeder Smith & Company

Continued on next page

# Schedule of Retirements by Type of Benefit and Department

(Concluded)

## Local Plan Volunteer Fire

| Retirement Effective Dates<br>January 1, 2008 to December 31, 2017 |  |  | Service at Retirement |        |        |        |        |        |        |
|--|--|--|-----------------------|--------|--------|--------|--------|--------|--------|
|  |  |  | 0-4#                  | 5-9    | 10-14  | 15-19  | 20-24  | 25-29  | 30+    |
| 01/01/08 - 12/31/08  | Average Monthly Benefit                                |  | \$ 131                | \$ 117 | \$ 150 | \$ 111 | \$ 128 | \$ 133 | \$ 132 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 277                   | 3      | 1      | 11     | 50     | 118    | 227    |
|  | # Includes 273 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/09 - 12/31/09  | Average Monthly Benefit                                |  | \$ 126                | \$ 117 | \$ 150 | \$ 111 | \$ 130 | \$ 136 | \$ 140 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 500                   | 3      | 1      | 11     | 46     | 105    | 164    |
|  | # Includes 427 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/10 - 12/31/10  | Average Monthly Benefit                                |  | \$ 125                | \$ 113 | \$ 113 | \$ 114 | \$ 129 | \$ 144 | \$ 141 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 436                   | 4      | 4      | 18     | 109    | 141    | 161    |
|  | # Includes 432 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/11 - 12/31/11  | Average Monthly Benefit                                |  | \$ 126                | \$ 113 | \$ 113 | \$ 115 | \$ 131 | \$ 146 | \$ 142 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 456                   | 4      | 4      | 17     | 105    | 139    | 154    |
|  | # Includes 452 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/12 - 12/31/12  | Average Monthly Benefit                                |  | \$ 129                | \$ 113 | \$ 113 | \$ 116 | \$ 133 | \$ 146 | \$ 144 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 443                   | 4      | 4      | 16     | 101    | 136    | 150    |
|  | # Includes 439 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/13 - 12/31/13  | Average Monthly Benefit                                |  | \$ 132                | \$ 113 | \$ 117 | \$ 116 | \$ 134 | \$ 147 | \$ 146 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 498                   | 4      | 3      | 16     | 99     | 136    | 144    |
|  | # Includes 494 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/14 - 12/31/14  | Average Monthly Benefit                                |  | \$ 135                | \$ 113 | \$ 117 | \$ 116 | \$ 135 | \$ 148 | \$ 148 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 554                   | 4      | 3      | 16     | 97     | 135    | 137    |
|  | # Includes 550 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/15 - 12/31/15  | Average Monthly Benefit                                |  | \$ 135                | \$ 113 | \$ 117 | \$ 117 | \$ 139 | \$ 150 | \$ 151 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 575                   | 4      | 3      | 15     | 96     | 132    | 126    |
|  | # Includes 571 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/16 - 12/31/16  | Average Monthly Benefit                                |  | \$ 138                | \$ 113 | \$ 117 | \$ 114 | \$ 141 | \$ 153 | \$ 154 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 606                   | 4      | 3      | 14     | 91     | 131    | 127    |
|  | # Includes 602 members whose service was not provided. |  |                       |        |        |        |        |        |        |
| 01/01/17 - 12/31/17  | Average Monthly Benefit                                |  | \$ 147                | \$ 113 | \$ 117 | \$ 114 | \$ 140 | \$ 154 | \$ 156 |
|  | Final Average Pay                                      |  | N/A                   | N/A    | N/A    | N/A    | N/A    | N/A    | N/A    |
|  | Number of Active Retirees                              |  | 838                   | 4      | 3      | 14     | 89     | 127    | 122    |
|  | # Includes 836 members whose service was not provided. |  |                       |        |        |        |        |        |        |

Gabriel Roeder Smith & Company

**LOPFI**  
**Top Ten Participating Employers**

|                               | 2017          |                        | 2016          |                        | 2015          |                        | 2014          |                        | 2013          |                        | 2012          |                        | 2011          |                        | 2010          |                        | 2009          |                        | 2008          |                        |
|-------------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|------------------------|
|                               | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees | No. Employees | % of Covered Employees |
| Fayetteville Paid Fire        | 118           | 1.8%                   | 121           | 1.8%                   | 107           | 1.7%                   | 108           | 1.7%                   | 107           | 1.7%                   | 108           | 1.8%                   | 105           | 1.7%                   | 105           | 1.8%                   | 104           | 1.8%                   | 108           | 1.9%                   |
| Fort Smith Paid Fire          | 164           | 2.5%                   | 165           | 2.5%                   | 156           | 2.4%                   | 161           | 2.5%                   | 156           | 2.5%                   | 139           | 2.3%                   | 124           | 2.1%                   | 119           | 2.0%                   | 120           | 2.0%                   | 119           | 2.1%                   |
| Fayetteville Paid Police      | 129           | 1.9%                   | 124           | 1.9%                   | 122           | 1.9%                   | 120           | 1.9%                   | 120           | 1.9%                   | 112           | 1.8%                   | 114           | 1.9%                   | 114           | 1.9%                   | 118           | 2.0%                   | 120           | 2.1%                   |
| Jonesboro Paid Police         | 156           | 2.3%                   | 161           | 2.5%                   | 154           | 2.4%                   | 155           | 2.5%                   | 154           | 2.5%                   | 145           | 2.4%                   | 145           | 2.4%                   | 147           | 2.5%                   | 143           | 2.4%                   | 131           | 2.3%                   |
| Little Rock Paid Fire         | 406           | 6.1%                   | 412           | 6.3%                   | 403           | 6.3%                   | 391           | 6.2%                   | 395           | 6.3%                   | 393           | 6.4%                   | 373           | 6.2%                   | 360           | 6.1%                   | 354           | 6.0%                   | 316           | 5.6%                   |
| Little Rock Paid Police       | 565           | 8.5%                   | 516           | 7.9%                   | 517           | 8.0%                   | 541           | 8.6%                   | 539           | 8.6%                   | 522           | 8.5%                   | 485           | 8.1%                   | 495           | 8.3%                   | 492           | 8.3%                   | 480           | 8.5%                   |
| North Little Rock Paid Fire   | 157           | 2.4%                   | 161           | 2.5%                   | 141           | 2.2%                   | 140           | 2.2%                   | 139           | 2.2%                   | 139           | 2.3%                   | 138           | 2.3%                   | 134           | 2.3%                   | 134           | 2.3%                   | 130           | 2.3%                   |
| North Little Rock Paid Police | 184           | 2.8%                   | 174           | 2.7%                   | 175           | 2.7%                   | 185           | 2.9%                   | 188           | 3.0%                   | 184           | 3.0%                   | 181           | 3.0%                   | 181           | 3.0%                   | 176           | 3.0%                   | 177           | 3.1%                   |
| Springdale Paid Fire          | 119           | 1.8%                   | 115           | 1.8%                   | 115           | 1.8%                   | 113           | 1.8%                   | 109           | 1.7%                   | 109           | 1.8%                   | 109           | 1.8%                   | 109           | 1.8%                   | 109           | 1.8%                   | 100           | 1.8%                   |
| Springdale Paid Police        | 145           | 2.2%                   | 139           | 2.1%                   | 140           | 2.2%                   | 130           | 2.1%                   | 123           | 2.0%                   | 122           | 2.0%                   | 119           | 2.0%                   | 116           | 1.9%                   | 117           | 2.0%                   | 115           | 2.0%                   |

Gabriel Roeder Smith & Company



## **CONTACT US**

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### **LOPFI Staff**

David B. Clark – Executive Director

Tracy Warfe – Assistant Director

Denise Collins – Chief Financial Officer

Jen Sines – Accountant II

Laura Nixon – Membership Coordinator

Jennifer Graves – Membership Services

Haley Garrett – Membership Services

Lesley Weaver – Membership Services

Tracie Owings – Membership Services

Please visit our website at [www.lopfi-prb.com](http://www.lopfi-prb.com) for meeting dates, agendas, minutes of previous meetings, seminar dates and locations, PensioNews, access to the **Member Portal**, and many other topics.

### **COMMENTS THAT YOU MAY HAVE**

We would love to hear from you. With valuable feedback from our Members and employer groups, we can make your membership more rewarding!