51st Comprehensive Annual Financial Report





FOR FISCAL YEAR: JULY 1, 2018 - JUNE 30, 2019



FIFTY-FIRST COMPREHENSIVE ANNUAL FINANCIAL REPORT FISCAL YEAR ENDED JUNE 30, 2019

Robert Wilson, CEBS Executive Director

Melissa Rackers, CPA, CGFM, CEBS Chief Financial Officer



Missouri Local Government Employees Retirement System 701 W. Main St. P.O. Box 1665 Jefferson City, MO 65102 (573) 636-9455 (800) 447-4334

Cover Photo Credit: Local Government Hero Brent Mullin School Resource Officer City of Sikeston

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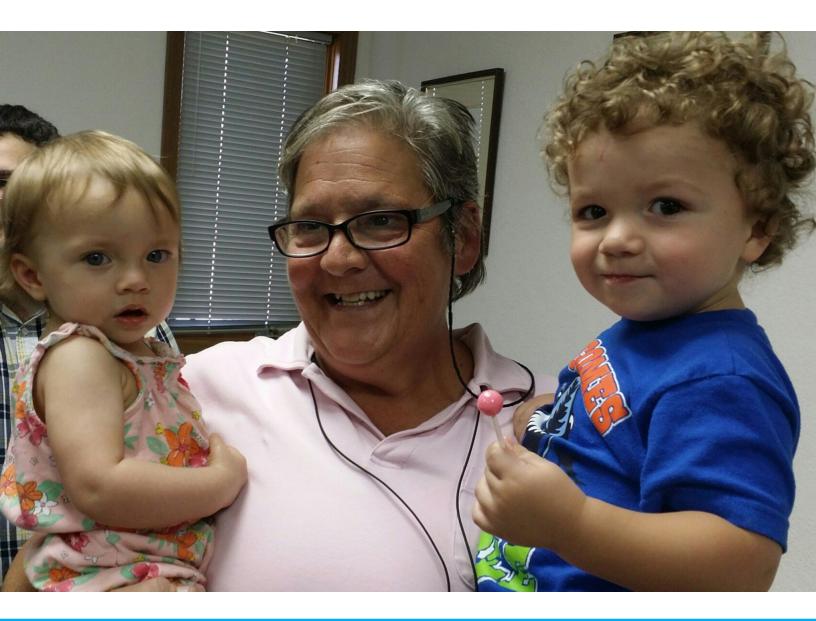


Photo Credit: Local Government Hero Finalist
Myrna Blaine
Director of Services and Supports
Camden County Developmental Disability Resources

SECTION 1: INTRODUCTION

Vision, Mission, Values

At LAGERS, we believe in a secure retirement for all and strive to achieve this vision by pursuing our mission of providing secure retirement, survivor's and disability benefits to local government subdivisions in Missouri. Our mission and vision are supported by the values held in high regard by the Board of Trustees and team. The pyramid below illustrates LAGERS vision, mission and values.



A Secure
Retirement for All

MISSION

To provide secure retirement, survivors', and disability benefits in the most efficient and economical manner possible, while providing superior service and fulfilling our fiduciary obligations.

VALUES

Dedication Respect Teamwork Integrity

Excellence Communication Accountability

Administrative Organization

ADMINISTRATIVE ORGANIZATION — BOARD

The board operates with the assistance of three committees, appointed by the chairperson: audit and finance, legislative and governance.

Audit and Finance Committee

Joan Jadali * J. Robert Ashcroft Arby Todd

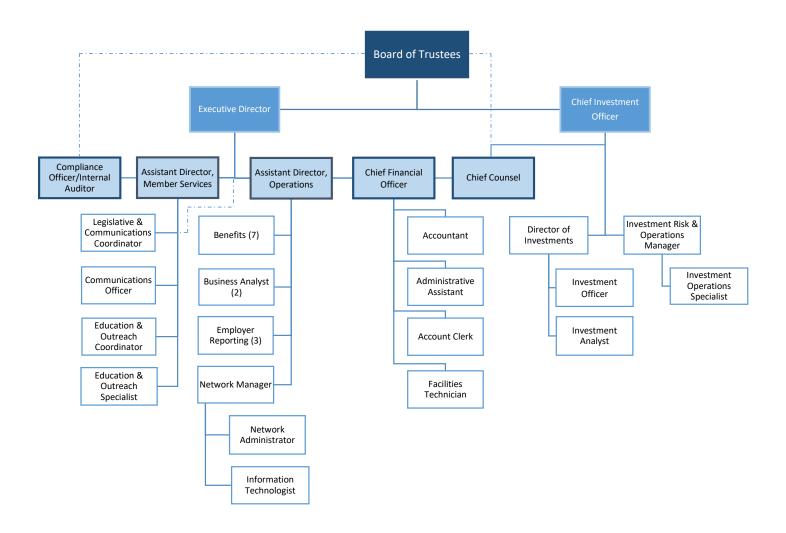
Legislative Committee

Claire Scoville *
Barry McCullough
Sandy Walker

Governance Committee

Frank Buck*
Claire Scoville
Barry McCullough

ADMINISTRATIVE ORGANIZATION - TEAM



^{*}Committee Chairperson

Consulting Services

The following firms were retained at fiscal year-end and by the Board of Trustees to serve in professional capacities or provide consultant services. Please refer to page 61 in the Investment Section for the Schedule of Advisor Fees, page 64 for the Brokerage Commissions and pages 62-63 for the investment professionals.

Actuary

Gabriel, Roeder, Smith & Co. Mita D. Drazilov Judith A. Kermans Southfield, MI

Legal Counsel

Thompson Coburn, LLP Attorneys at Law Gregory A. Patterson St. Louis, MO

Auditor

Williams Keepers, LLC Certified Public Accountant Nick Mestres, CPA Jefferson City, MO

Legislative Consultant

Flotron & McIntosh Richard McIntosh Jefferson City, MO

Eclipse Consultant

Sagitec Solutions, LLC Paul Eberhart Little Canada, MN

Legal Counsel

Husch Blackwell, LLP Attorneys at Law Lowell Pearson Jefferson City, MO

Medical Advisor

University of Massachusetts Medical School Disability Evaluation Services Jody Simpson, RN Shrewsberry, MA

Acknowledgements

The LAGERS Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2019, was coordinated by the Chief Financial Officer. Special thanks to the individuals who contributed significant amounts of time and energy to help complete this report.

Danielle Plassmeyer, Accountant

Erin Stieferman, Investment Risk and Operations Manager

Ashley Schmitz, Investment Operations Specialist

Penny Thomas, Education & Outreach Specialist

Jeffrey Pabst, CRC, Education & Outreach Coordinator

Awards

CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Missouri Local Government Employees Retirement System

> For its Comprehensive Annual Financial Report for the Fiscal Year Ended

> > June 30, 2018

Christopher P. Morrill

Executive Director/CEO

PPCC ACHIEVEMENT AWARD FOR FUNDING



Public Pension Coordinating Council

Recognition Award for Funding 2018

Presented to

Missouri Local Government Employees Retirement System

In recognition of meeting professional standards for plan funding as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

Alan H. Winkle

Letter of Transmittal



MISSOURI LOCAL GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

701 West Main, P.O. Box 1665, Jefferson City, Missouri 65102 Telephone (573) 636-9455 • 800-447-4334 • FAX (573) 636-9671 www.molagers.org

October 14, 2019

The Board of Trustees Missouri Local Government Employees Retirement System Jefferson City, MO 65102

The Annual Report of the Missouri Local Government Employees Retirement System (LAGERS) for the fiscal year ended June 30, 2019, is submitted herewith. The management of LAGERS is responsible for the compilation and accuracy of the financial, investment, actuarial and statistical information contained in this report. Responsibility for both the accuracy of the data, and completeness and fairness of the presentation, rests with the management of the system. We trust that you and the members of the system will find this annual report helpful in understanding your public employee retirement system – a system which continues to maintain a strong and positive financial future.

The LAGERS system was established in 1967 consisting of 10 employers and has subsequently expanded to include 758 political subdivisions of the state. A listing of the current employers begins on page 87.

STRATEGIC PLANNING

In 2018, the Board of Trustees adopted a formal three-year strategic plan. The core of our strategic planning is our values. Our values are the beliefs that we hold dear and provide guidance for how we conduct ourselves. Our values provide the support for our mission and vision statements (as stated on page 6). With these three components in place we were able to develop a three-year strategic plan. The strategic plan began with a SWOT analysis which was performed by LAGERS management team and Board of Trustees. A SWOT analysis identifies strengths, weakness, opportunities and threats both within and external to the system. This is where the consensus was built about where our focus should be concentrated. The four critical success factors identified during the SWOT analysis are: funding sustainability, stakeholder service and outreach, staffing, and technology and cybersecurity. These four critical success factors then become the action items for the strategic plan. LAGERS management team developed key strategies we must achieve for success, objectives for how we will achieve the key strategies and planned actions for how we will accomplish the objectives. The strategic plan then became the basis for the annual business plan and budgeting process for the fiscal year. The development of the business plan is a coordinated effort of LAGERS management team.

CURRENT AND FUTURE INITIATIVES

The following items provide insight on a few initiatives the LAGERS team is currently focused on:

- Enhancing and expanding our outreach to all stakeholders. We are focused on communicating at the local, state and national level the value of public service and defined benefit plans. LAGERS has focused its communication strategy on the strength and security of our system and addressing the significant challenges some public pension plans are facing. We're sharing our plan design and operation as a role model of success.
- Establishing processes, policies and procedures for effective implementation of legacy plan administration. LAGERS
 has successfully transitioned four closed pension plans previously administered by the political subdivision into
 LAGERS with several more plans expressing interest in transitioning to LAGERS. This valuable work not only
 benefits the state and our communities; it also enhances our credibility as a strong leader providing solutions.
- Ensuring the security of the system's data and business continuity. LAGERS information security team has been focused on updating LAGERS equipment to enhance cybersecurity protection and ensure LAGERS ability to continue serving our members in the event of a disaster. We have also implemented annual training on social engineering for the entire LAGERS team.

 Pursuing a secure retirement for all. During the 2018 legislative session LAGERS worked with the Soil and Water Conservation Districts and Metro Planning Organizations to pursue legislation enabling them to be considered political subdivisions under the LAGERS statutes. Senate Bill 892 was passed into law allowing these two groups to make the election at the local level to join LAGERS.

During the 2019 fiscal year, 28 Soil and Water Conservation Districts joined LAGERS with another 23 having joined by the date of this letter. During the 2019 legislative session, LAGERS' Public Safety Bill, Senate Bill 17, was passed into law which gives LAGERS employers residing in 3rd class counties the option to classify EMS personnel, jailors, and dispatchers as public safety personnel for the purpose of determining a normal retirement age of 55. The passage of this bill assists LAGERS' employers with attracting and retaining quality employees in these roles which are crucial to their communities.

ACCOUNTING SYSTEMS AND REPORTS

The report was prepared to conform with the principles of governmental accounting and reporting as put forth by the Governmental Accounting Standards Board (GASB) and the American Institute of Certified Public Accountants.

The Government Finance Officers Association of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to the LAGERS system for its comprehensive annual financial report for the fiscal year ended June 30, 2018. LAGERS has received this prestigious award for its annual report in each of the last 41 years.

In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report, the contents of which conform to program standards. Such reports must satisfy both generally accepted accounting principles and applicable legal requirements. We believe this report continues to conform to the Certificate of Achievement Program requirements, and we are submitting it to the Government Finance Officers Association to determine its eligibility for another certificate.

The Financial section of the report contains the independent auditors' letter, management's discussion and analysis, the financial statements, notes and other required supplementary information. Management's discussion and analysis provides a narrative introduction and overview of the financial statements and should be read in conjunction with those statements.

Transactions of the LAGERS system are reported on the accrual basis of accounting. The management of the system is charged with maintaining a sound system of internal controls. The objectives of such a system are to provide management with reasonable assurance, rather than absolute assurance, that assets are safeguarded against loss from unauthorized use, and they are recorded properly to permit the preparation of financial statements. Even though there are inherent limitations in any system of internal controls because the cost of a control should not exceed the benefits to be derived, the management of LAGERS makes every effort to ensure that through systematic reporting and internal reviews, errors or fraud would be quickly detected and corrected.

REVENUES

The collection of employer and employee contributions, as well as income from investments, provides the reserves needed to finance retirement benefits. Contributions and investment income for fiscal year 2019 total \$761,280,476. This amount includes realized and unrealized gains/losses. In the upcoming year, while some employer contribution rates are decreasing or remaining unchanged, slightly more than half are increasing due to less than assumed investment returns during the valuation period.

EXPENSES

The principal purpose for which LAGERS was created was to provide retirement annuities, survivor benefits, and total and permanent disability benefits to qualified members and their beneficiaries. The cost of such programs includes recurring benefit payments as designated by the plan, refunds of contributions to terminated employees, and the cost of administering the system. Expenses for fiscal year 2019 totaled \$341,209,782, an increase of 8.3% over fiscal year 2018 expenses. The increase in expenses resulted primarily from monthly payments to the additional number of retirees and partial lump-sum payments to retirees.

Letter of Transmittal (continued)

INVESTMENTS

The investments of LAGERS are governed primarily by an investment authority known as the "prudent person rule". The prudent person rule establishes a standard for all fiduciaries, which includes anyone that has authority with respect to the fund. The prudent person standard states that fiduciaries shall discharge their duties solely in the interest of the fund participants and beneficiaries and with the degree of diligence, care, and skill which prudent men and women would ordinarily exercise under similar circumstances in a like position. By permitting further diversification of investments within a fund, the prudent person standard may enable a fund to reduce overall risk and increase return. A summary of the asset allocation can be found on page 54 of this report.

The prudent person rule permits the fund to establish an investment policy based upon certain investment criteria and allows for the delegation of investment authority to professional investment advisors. The statement of investment policy outlines the responsibility for the investment of the fund and the degree of risk that is seemed appropriate for the fund. Investment advisors are to execute the investment policy in accordance with the statutory authority, the Board policy and their respective guidelines, but are to use full discretion within the policy and guidelines. For fiscal year 2019 investments provided a 7.12% rate of return. The longer time periods of 5, 10 and 20 years provided returns of 6.83%, 10.85% and 7.15%, respectively.

FUNDING

A pension fund is well funded when it has enough money in reserve to meet all expected future obligations to participants. The LAGERS funding objective is to meet long term benefit promises through contributions that remain approximately level as a percent of member payroll. The greater the level of funding, the larger the ratio of assets accumulated to the actuarial accrued liability and the greater the level of investment potential. At June 30, 2019, the system has a funded status of 94.9%. The advantage of a well funded plan is that the participants can look at assets that are committed to the payment of benefits. A detailed discussion of funding is provided in the Actuarial Section of this report.

PROFESSIONAL SERVICES

Professional consultants are appointed by the Board of Trustees to perform professional services that are essential to the effective and efficient operation of LAGERS. An opinion from the certified public accountant and the actuary are included in this report. The consultants appointed by the Board are listed on page 8 of this report.

ACKNOWLEDGMENTS

The compilation of this report reflects the combined effort of the LAGERS staff under the leadership of the Board of Trustees. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship of the funds of the system.

The report is being provided electronically and by mail upon request to all employer members of the system. They form the link between LAGERS and its membership. Their cooperation contributes significantly to the success of LAGERS. We trust the employers and their employees find this report informative. An electronic version of this report is available on the LAGERS website at www.molagers.org.

On behalf of the Board of Trustees, we would like to take this opportunity to express our gratitude to the team, the advisors, and the many people who have worked so diligently to assure the successful operation of the system.

Respectfully submitted

Robert L. Wilson

Robert L. Wilson, CEBS Executive Director

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Melina K. Rackers

Melissa K. Rackers, CPA, CEBS, CGFM Chief Financial Officer

Chairperson's Report



MISSOURI LOCAL GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

701 West Main, P.O. Box 1665, Jefferson City, Missouri 65102 Telephone (573) 636-9455 • 800-447-4334 • FAX (573) 636-9671 www.molagers.org

October 14, 2019

To all LAGERS members:

It is with great pride that I share with you the commitment, strengths and successes of LAGERS retirement system. LAGERS is truly 'hitting on all cylinders' as we continue to grow stronger in support of our valued members, families, employers and the important communities they serve.

LAGERS exists to provide secure retirement income to Missouri's local government workers. The system continues to thrive and be a source of security, stability and fiscal responsibility for a growing number of communities. This last fiscal year alone (ending June 30th) 43 new employers joined LAGERS, bringing our total membership to 758 employers – with 23 more already slated to join in the next few months. This is a testament to our excellent plan design, commitment to funding, member service, efficient operations, and oversight. LAGERS continues to be a proven leader among all public pension plans for its vision, superior plan design, diligence, and execution.

Yet LAGERS Board and staff are committed to never becoming complacent. We are constantly striving to improve effort, service, efficiency, and results. We know how important our role is to our members, retirees, citizens, and communities. LAGERS is a vital building block in providing security to local governments throughout Missouri.

LAGERS continues its strong prefunded ratio, coming in at 94.9% in 2019. This strong prefunded ratio ranks LAGERS in the top 10% of public pension plans, not only in Missouri, but across the nation. LAGERS returned 7.12% for the one-year period, reflecting strong performance in a turbulent investment period. Over the longer period of 5, 10, and 20 years, LAGERS has provided returns of 6.83%, 10.85%, and 7.15% respectively. These long term returns continue to exceed LAGERS' Custom Benchmarks by greater than 1% for each respective period. The Board has affirmed the continuation of a risk preference of a 10% standard deviation for LAGERS' investment portfolio, further supporting the current portfolio allocation targeting an assumed rate of return of 7.25%. As we move forward, the investment team will focus on balancing LAGERS' asset allocation with the liquidity allocation as LAGERS' private assets is near full deployment. The underweight in Real Assets will continue to be a focus this coming year as LAGERS continues to manage inflation risk and growth risk.

I would like to take this opportunity to express my gratitude to my fellow trustees for their dedication to LAGERS members. The Board's vision, guidance and support are critical to the success of LAGERS.

I appreciate the opportunity of serving on the LAGERS Board as Chairperson. Please know the LAGERS Board and staff will continue to strive to provide a quality retirement program while ensuring the financial integrity of the system.

I am pleased to present the 2019 Comprehensive Annual Financial Report. This report offers a detailed analysis of the financial, investment and actuarial performance of your retirement system and serves as evidence of our responsibility of transparency to all of our stakeholders.

Respectfully,

Arby Todd, Chairperson LAGERS Board of Trustees

Board of Trustees



From Left: Frank Buck, Sandy Walker, J. Robert Ashcroft, Claire Scoville, Barry McCullough, Joan Jadali, Arby Todd

Arby Todd Member Trustee Chairperson City of Lee's Summit

Joan Jadali **Member Trustee Vice - Chairperson** City of Webster Groves Term Expires 12-31-2021 Term Expires 12-31-2022 **Frank Buck Employer Trustee** Dekalb County Term Expires 12-31-2020 J. Robert Ashcroft **Employer Trustee** Platte County Term Expires 12-31-2021

Sandy Walker Member Trustee City of Poplar Bluff Term Expires 12-31-2020 **Barry McCullough Employer Trustee** City of Gladstone Term Expires 12-31-2022 **Claire Scoville Citizen Trustee** Term Expires 12-31-2019

LAGERS Executive Team



From Left: Robert Wilson, Brian Collett, Jason Paulsmeyer, Melissa Rackers, Jeff Kempker, Tami Jaegers, Pam Hopkins

Robert Wilson, CEBS Executive Director **Brian Collett,** CFA, CAIA Chief Investment Officer

Jason Paulsmeyer Chief Counsel Melissa Rackers, CPA, CGFM, CEBS Chief Financial Officer

Jeff Kempker, CEBS, CRC Asst. Director, Member Services **Tami Jaegers,** RPA Asst. Director, Operations Pam Hopkins, CPA, CIA, CRMA, RPA, CGFM, Compliance Officer / Internal Auditor

LAGERS Team

Benefits Team



From Left: Diane Towne, Amanda Stratman, Dana Eichholz, Stephanie Leonard, Betty Rutledge, Danielle Wilbers, Tami Jaegers, Leslie Loar, Tammy Burlbaw

Employer Reporting Team



From Left: Tami Jaegers, Dennise Schaben, Miranda Fishback, Liz Trabue, Betty Rutledge

Investment Team



From Left: Megan Loehner, Jason Paulsmeyer, Erin Stieferman, Ashley Schmitz, Derek Trinh, Tyler Luebbert, Brian Collett

Administrative Team



From Left: Danielle Plassmeyer, Dale Feeler, Melissa Rackers, Jan Kinard

Information Technology Team



From Left: Meghan Gentges, Mya Bernskoetter, Jamie Houk, Melissa Rackers, Richard Allison, Misty Brazzell

Member Services Team



From Left: Jeff Pabst, Elizabeth Althoff, Angela Lechtenberg, Penny Thomas, Jeff Kempker



Photo Credit: Local Government Hero Finalist
Peggy Bowles
Administrator
Henry County Health Center

SECTION 2: FINANCIAL

Independent Auditors' Report



2005 West Broadway, Suite 100, Columbia, MO 65203 OFFICE (573) 442-6171 FAX (573) 777-7800

3220 West Edgewood, Suite E, Jefferson City, MO 65109 OFFICE (573) 635-6196 FAX (573) 644-7240

www.williamskeepers.com

INDEPENDENT AUDITORS' REPORT

The Board of Trustees Missouri Local Government **Employees Retirement System**

Report on the Financial Statements

We have audited the accompanying statement of fiduciary net position of the Missouri Local Government Employees Retirement System (the System), as of June 30, 2019, and the related statement of changes in fiduciary net position for the year then ended, 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 U.S. generally accepted accounting principles; 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audit 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 System'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 System'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.

American Institute of Certified Public Accountants | Missouri Society of Certified Public Accountants | Member, Allinial Global

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System at June 30, 2019, and the changes in fiduciary net position for the year then ended, in conformity with U.S. generally accepted accounting principles.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 20 through 23 and the schedules of investment returns, changes in net pension liability, changes in net OPEB liability and related ratios, and employer contributions on pages 45 through 48 be presented to supplement the basic financial statements. Such information, although not a 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 U.S. generally accepted auditing standards, 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 audit of the basic 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 audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Systems' basic financial statements. The introductory, investment, actuarial and statistical sections as listed in the table of contents and the schedule of operating expenses on page 49 are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedule of operating expenses on page 49 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information on page 49 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 U.S. generally accepted auditing standards. In our opinion, the information on page 49 is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements

October 14, 2019

Williams-Keepers LCC

American Institute of Certified Public Accountants | Missouri Society of Certified Public Accountants | Member, Allinial Global

Management's Discussion & Analysis (MD&A)

Management is pleased to present this overview and analysis of the financial activities of the Missouri Local Government Employees Retirement System (LAGERS) for the year ended June 30, 2019. We encourage readers to consider the information presented in conjunction with the Letter of Transmittal on page 10 of this report, the financial statements, required supplementary information, and supplementary information, which follow the MD&A.

REQUIRED FINANCIAL STATEMENTS

LAGERS, an agent multiple-employer public employee retirement system, prepares its financial statements on an accrual basis in accordance with U.S. generally accepted accounting principles promulgated by the Governmental Accounting Standards Board. The Statement of Fiduciary Net Position indicates the net assets available to pay future benefits and provides a snapshot at a particular point in time. The Statement of Changes in Fiduciary Net Position provides a view of the current year's additions and deductions from net assets. The Notes to the Financial Statements are necessary for a full understanding of the financial statements. The Required Supplementary Information provides the money-weighted rate of return information. In addition, there is current and historical pension liability information for the LAGERS Staff Retirement Plan and current and historical OPEB liability information for the LAGERS Staff Retiree Healthcare Supplement. Other Supplementary Information provides detailed administrative and investment expense information.

FINANCIAL ANALYSIS OF LAGERS

LAGERS receivables consist of investments and employer and employee contributions that settle in July 2019. LAGERS had capital assets, net of accumulated depreciation, of \$5.8 million. Of the total, \$4.3 million is comprised of software needed for pension administration as well as other equipment and furniture, and \$1.5 million is comprised of buildings and land. Deferred outflows and inflows relate to the separate pension and OPEB plans administered by the LAGERS Board of Trustees with the participants being the employees of LAGERS. Liabilities at year end relate to accrued investment and administrative expenses, securities lending collateral and a revolving line of credit. Liabilities as of June 30, 2019 also consist of the pension liability related to the LAGERS Staff Retirement Plan and the OPEB liability related to the LAGERS Staff Retiree Healthcare Supplement.

COMPARATIVE FINANCIAL STATEMENTS

LAGERS provides retirement, death, and disability benefits to employees of participating political subdivisions. The table below is a summary of LAGERS' Fiduciary Net Position (in thousands) as of June 30.

Comparative Statement of Fiduciary Net Position						
	2019	2018	Increase (Decrease) Amount	Increase (Decrease) Percent		
Assets						
Cash	\$ 13,303	\$ 6,000	\$ 7,303	122%		
Receivables and accrued income	35,648	36,824	(1,176)	(3)		
Prepaid expenses	160	61	99	162		
Investments	8,330,011	7,717,549	612,462	8		
Invested securities lending collateral	468,802	453,305	15,497	3		
Capital assets	5,770	6,321	(551)	(9)		
Net OPEB asset		184	(184)			
Total assets	\$ 8,853,694	\$ 8,220,244	\$ 633,450	8		
Deferred outflow of resources						
Outflows related to pensions	\$ 5,770	\$ 2,115	\$ 3,655	173%		
Outflows related to OPEB	690	145	545	376		
Total deferred outflow of resources	\$ 6,460	\$ 2,260	\$ 4,200	186		
Liabilities						
Payables and accrued expenses	\$ 9,308	\$ 10,588	\$ (1,280)	(12)%		
Collateral for securities on loan	468,802	453,305	15,497	3		
Line of Credit	200,000		200,000			
Net pension liability	4,818	1,737	3,081	177		
Net OPEB liability	449		449			
Total liabilities	\$ 683,377	\$ 465,630	\$ 217,747	47		
Deferred inflow of resources						
Inflows related to pensions	\$ 380	\$ 535	\$ (155)	(29)%		
Inflows related to OPEB	80	93	(13)	(14)		
Total deferred inflow of resources	\$ 460	\$ 628	\$ (168)	(27)		
Net position restricted for						
pension benefits	\$8,176,317	\$ 7,756,246	\$ 420,071	5%		

This table presents a \$420 million increase in net position. The increase in net position reflects the investment markets this past year which resulted in a 7.1% annualized return. As a pension fund, LAGERS must retain a long-term investment horizon and the table below presents the returns for such time frames.

	3 Years	<u>5 Years</u>	10 Years	20 Years
Annualized Returns	10.9%	6.8%	10.9%	7.2%

Management's Discussion & Analysis

(continued)

The table below is a summary of LAGERS' Changes in Fiduciary Net Position (in thousands) for the year ended June 30.

Comparative Statement of Changes in Fiduciary Net Position							
	2019	2018	Increase (Decrease) Amount	Increase (Decrease) Percent			
Additions							
Member contributions	\$ 25,341	\$ 19,811	\$ 5,530	28%			
Employer contributions	226,206	204,018	22,188	11			
Net investment income (loss)	509,105	858,318	(349,213)	(41)			
Net securities lending income	629	1,932	(1,303)	(67)			
Total additions	\$ 761,281	\$1,084,079	\$ (322,798)	(30)			
Deductions							
Benefit payments	\$ 331,493	\$ 307,740	\$ 23,753	8%			
Annuities awarded		20	(20)				
Refunds	2,321	1,919	402	21			
Expenses	7,396	5,497	1,899	35			
Total deductions	\$ 341,210	\$ 315,176	\$ 26,034	8			
Change in net position							
available for benefits	\$ 420,071	\$ 768,903	\$ (348,832)	(45)%			

Additions to fund benefits are accumulated through contributions and investment income. The increase in member contributions is due to service purchases. The majority of the service purchased was by employees of new political subdivisions which did not elect 100% prior service credit. LAGERS' net investment income reflects the investment markets for fiscal year 2019 which is down from 2018. Benefit payments continue to increase as LAGERS fulfills its mission of providing retirement benefits to the membership. As the system matures, the demographics of the LAGERS population will also mature. Expenses increased due to an additional lump sum contribution made to the LAGERS Staff Retirement Plan to improve the funding level of this plan per the funding policy.

FUNDING STATUS

A pension plan is well funded when it has sufficient assets invested to meet all expected future obligations to participants. The greater the level of funding – the larger the ratio of assets to actuarial accrued liability. One goal of LAGERS' funding policy is for participating political subdivisions to be fully funded. In order to achieve this, annual contributions are made at an actuarially determined rate.

The LAGERS funding policy is designed to achieve the following objectives:

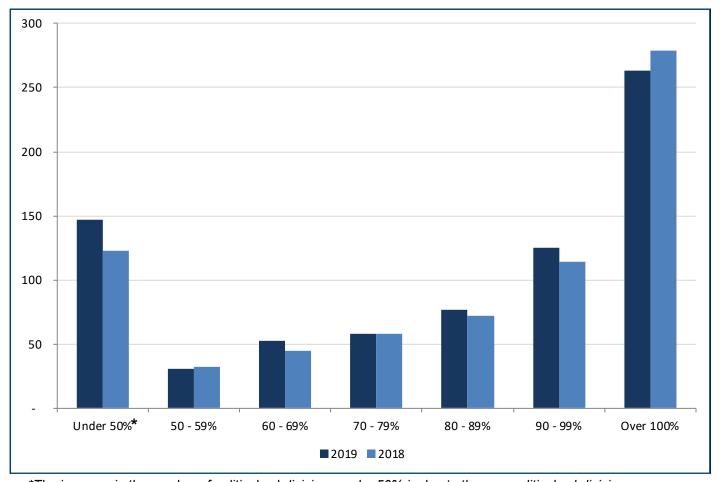
- · Maintain adequate assets to fund future benefits
- Maintain stable employer contribution rates
- Maintain public policy goals of transparency and accountability
- Promote intergenerational equity

As an agent multiple-employer plan, assets are pooled for investment purposes but separate accounts are maintained for each employer. Each participating employer is responsible for its own plan liabilities; an employer cannot borrow from another employer account to pay for pension expenses. A measure of an employer's funding progress is the ratio of its actuarial assets to actuarial accrued liabilities. The funded status is determined for each employer as well as for the plan as a whole.

The most recent actuarial valuations were prepared as of February 28, 2019. At that time, the overall funded ratio of the LAGERS system was 94.9 percent. This ratio gives an indication of how well LAGERS' funding objective is being met. LAGERS' actuary uses a five-year smoothed market-related value to determine the actuarial value of assets. The smoothing prevents extreme volatility in employer contribution rates due to short-term fluctuations, positive or negative, in the investment markets. A ten year schedule of funding progress is provided on the next page.

		LAGERS So	chedule of Fund	ding Progress		
Valuation Date	Actuarial Value of Assets	Entry Age Actuarial Accrued Liability	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll	UAL as a % of Covered Payroll
2-28-19	\$ 7,698,244,648	\$ 8,113,100,648	\$ 414,856,000	94.9%	\$1,682,772,357	24.7%
2-28-18	7,297,699,793	7,631,702,645	334,002,852	95.6	1,616,895,524	20.7
2-28-17	6,764,626,389	7,135,950,253	371,323,864	94.8	1,555,729,666	23.9
2-29-16	6,320,171,438	6,671,352,337	351,180,899	94.7	1,507,588,470	23.3
2-28-15	5,972,471,342	6,324,109,191	351,637,849	94.4	1,462,218,216	24.0
2-28-14	5,388,198,677	5,873,910,959	485,712,282	91.7	1,456,008,487	33.4
2-28-13	4,692,218,862	5,423,684,243	731,465,381	86.5	1,395,261,077	52.4
2-29-12	4,274,440,345	5,120,274,198	845,833,853	83.5	1,359,655,784	62.2
2-28-11	3,945,085,880	4,837,423,311	892,337,431	81.6	1,350,646,560	66.1
2-28-10	3,592,225,739	4,432,331,886	840,106,147	81.0	1,331,226,335	63.1

The chart below represents a distribution of funded percentage of actuarial accrued liability among the participating political subdivisions as of February 28, 2018 and February 28, 2019.



*The increase in the number of political subdivisions under 50% is due to the new political subdivisions during the 2019 valuation period which totalled 26.

Statement of Fiduciary Net Position

June 30, 2019			
Assets			
Cash		\$	13,303,416
Receivables:			
Member	\$ 1,621,981		
Employer	16,762,915		
Accrued investment income	17,263,337		
Total receivables			35,648,233
Prepaid expenses			160,421
Investments at fair value:			
Short-term investments	\$ 252,461,190		
Government bonds	826,075,517		
Corporate bonds	286,403,343		
International bonds	599,758,985		
Mortgage and asset-backed securities	217,440,501		
Domestic stocks	623,222,483		
International stocks	707,967,583		
Real estate	846,133,680		
Partnerships	3,088,563,909		
Absolute return	832,182,133		
Other alternative investments	49,801,105		
Total investments			8,330,010,429
Invested securities lending collateral			468,802,025
Capital assets, net of accumulated depreciation of \$6,166,169			5,769,701
Total assets		\$	8,853,694,225
Deferred outflow of resources			
Outflows related to pension	\$ 5,770,061		
Outflows related to OPEB	690,563		
Total deferred outflow of resources		\$	6,460,624
Liabilities			
Accounts payable and accrued expenses	\$ 1,920,834	П	
Accrued investment expenses	7,387,561		
Collateral for securities on loan	468,802,025		
Line of credit	200,000,000		
Net pension liability	4,817,755		
Net OPEB liability	448,900		
Total liabilities		\$	683,377,075
Deferred inflow of resources			
Inflows related to pension	\$ 380,254		
Inflows related to OPEB	80,464		
Total deferred inflow of resources		\$	460,718
Net position - restricted for pension benefits		\$	8,176,317,056

See accompanying notes to financial statements.

Statement of Changes in Fiduciary Net Position

			Υ	ear Ended J	un	e 30, 2019					
								Reserves			
		Total		Member		Employer		Benefit	Casualty		Income (Expense)
Additions:											
Contributions:										Г	
Member	\$	25,340,904	\$	25,340,904	Г					Г	
Employer		226,206,112			\$	217,420,448			\$ 8,785,664		
Total Contributions	\$	251,547,016	\$	25,340,904	_	217,420,448			\$ 8,785,664		
Investment income:											
Interest income	\$	85,612,264								\$	85,612,264
Dividend income		34,107,122								ľ	34,107,122
Other income		19,791,690									19,791,690
Net appreciation in fair value		480,905,196									480,905,196
Total investment income		620,416,272									620,416,272
Less investment expenses		111,311,596									111,311,596
Net investment income		509,104,676			Г						509,104,676
Securities lending income		11,725,648			Г					П	11,725,648
Less securities lending rebates		11,096,844									11,096,844
Net securities lending income		628,784								L	628,784
Investment income allocated			\$	696,268	\$	257,362,549	\$	250,523,620	\$ 1,247,779	\$	(509,830,216)
Net additions (reductions)	\$	761,280,476	\$	26,037,172	\$	474,782,997	\$	250,523,620	\$ 10,033,443	\$	(96,756)
Deductions											
Benefits Paid:							Г			Г	
Annuity benefits	\$	331,493,296			\$	3,654,992	\$	327,838,304		L	
Refunds	Ť	2,320,610	\$	2,320,610	_	-,	ľ	,,		L	
Net benefits paid		333,813,906	Ť	2,320,610		3,654,992		327,838,304			
Annuities awarded				13,423,351		382,238,315		(402,159,531)	\$ 6,514,711	\$	(16,846)
Administrative expenses		8,129,127		-, -,		5,136,445		2,992,682	.,,	ľ	(-,)
Pension expense (gain)		(572,052)						, ,			(572,052)
OPEB expense (gain)		(161,199)									(161,199)
Net deductions	\$	341,209,782	\$	15,743,961	\$	391,029,752	\$	(71,328,545)	\$ 6,514,711	\$	(750,097)
Net increase (decrease)		, , , , , ,									
in net position	\$	420,070,694	\$	10,293,211	\$	83,753,245	\$	321,852,165	\$ 3,518,732	\$	653,341
Not position rootsisted for someine											
Net position restricted for pension benefits at June 30, 2018	\$	7,756,246,362	\$	154,422,173	\$	3,795,163,757	\$	3,789,795,657	\$ 16,784,865	\$	79,910
Net position restricted for pension benefits at June 30, 2019	\$	8,176,317,056	\$	164,715,384	\$	3,878,917,002	\$	4,111,647,822	\$ 20,303,597	\$	733,251

See accompanying notes to financial statements.

Notes to Financial Statements (Year Ended June 30, 2019)

(1) Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting:

The financial statements were prepared using the accrual basis of accounting. Employee and employer contributions are recognized in the period in which the contributions are due and for which employee services have been rendered. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made.

Use of Estimates:

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires Missouri Local Government Employees Retirement System (LAGERS) to use estimates and assumptions that affect the accompanying financial statements and disclosures. Actual results could differ from those estimates.

Reporting Entity:

The accompanying financial statements include only the accounts of the LAGERS retirement system pursuant to RSMo 70.605.18 which requires an audit to be performed by a certified public accountant. RSMo 70.605.21 provides the LAGERS Board of Trustees with the authority to govern its own proceedings and administer the LAGERS retirement system. The LAGERS Board of Trustees established retirement and postemployment healthcare plans (Notes (5) and (6)), for its employees who administer the LAGERS retirement system. Such plans are not considered to be part of the reporting entity and thus are not included in the accompanying financial statements beyond the employer reporting requirements of GAAP.

Method Used to Value Investments:

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Bonds and stocks traded on a national or international exchange are valued at the reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. Fair values for alternative investments in timberland and real estate represent net asset value estimates provided by the general partner's administrators or portfolio managers and are compared to independent appraisals. Investments that do not have an established market are reported at estimated fair value. The fair value of the absolute return and partnership portfolios are based upon the valuations of the underlying companies as determined by the general partner or portfolio manager.

Capital Assets:

The office building, software, equipment and fixtures, which are presented at cost, are depreciated on the straight-line method over the estimated useful lives of the related assets, which have an original cost of \$500 or greater. The estimated useful lives are as follows: building -25 years, furniture -8 years, equipment -3 years and internally generated computer software -15 years.

New Accounting Pronouncements:

In January 2017, GASB issued Statement No. 84 – Fiduciary Activities. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported by the primary government. This Statement is effective for LAGERS' June 30, 2020 financial statements.

(2) Plan Description

LAGERS was established in 1967 and is administered in accordance with RSMo. 70.600-70.755. LAGERS is an agent multiple-employer, statewide public employee retirement plan for units of local government which is legally separate and fiscally independent of the State of Missouri.

Responsibility for the operation and administration of the plan is vested in the LAGERS Board of Trustees consisting of seven persons. Three trustees are elected by the employees who participate in the system, three trustees are elected by the members of the governing bodies of those political subdivisions which participate in the system, and one trustee is appointed by the governor of the State of Missouri. The regular term of office for members of the LAGERS Board of Trustees is four years. Members of the LAGERS Board of Trustees serve without compensation with respect to their duties, but are reimbursed by LAGERS for their actual and necessary expenses incurred in the performance of their duties.

At June 30, 2019, there were 758 participating political subdivisions in the system. Any political subdivision in Missouri may elect to have its full-time general, police and fire employees covered by LAGERS. At June 30, 2019, LAGERS membership consisted of the following:

	General	Police	Fire	Total
Retirees and beneficiaries currently receiving benefits:	19,127	4,170	1,330	24,627
Terminated employees entitled to benefits but not yet receiving them:	5,742	1,776	320	7,838
Active employees:	26,021	6,550	2,559	35,130
Total	50,890	12,496	4,209	67,595

LAGERS provides retirement, death and disability benefits to employees of participating political subdivisions. All benefits vest after five years of credited service. Employees who retire on or after age 60 (55 for police and fire) with five or more years of service are entitled to an allowance for life based upon the benefit program then in effect for their political subdivision. Employees may retire with an early retirement benefit with a minimum of five years of credited service and after attaining age 55 (50 for police and fire) and receive a reduced allowance. The LAGERS Board of Trustees establishes the benefit plans and provisions that are available for adoption. The political subdivision's governing body adopts all benefits of the plan. Benefit terms provide for annual post retirement adjustments to each member's retirement allowance subsequent to the member's retirement date. The annual adjustment is based on the increase in the Consumer Price Index and is limited to 4 percent per year.

If the political subdivision participates under the contributory plan, each member contributes 4 percent of gross salary. If an employee leaves covered employment or dies before attaining five years of credited service, accumulated employee contributions are refunded to the employee or designated beneficiary. Each participating employer is required by statute to contribute the remaining amounts necessary to finance the coverage of its own employees. Benefit and contribution provisions are fixed by state statute and may be amended only by action of the state legislature.

A summary of plan provisions is discussed in more detail in the Actuarial Section. Additional information as of the February 28, 2019, actuarial valuation follows:

Schedule of Funding Status: (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll	UAL as a % of Covered Payroll
2-28-19	\$7,698,245	\$8,113,101	\$414,856	94.9%	\$1,682,772	24.7%

The actuarial assumptions used for valuation purposes were updated as a result of the five year Experience Study conducted in 2015.

2-28-19 Valuation date Actuarial Cost Method Individual Entry Age Amortization method Remaining amortization period Asset valuation method

Actuarial assumptions: Investment rate of return* Projected salary increases* *Includes inflation component of

Cost-of-living adjustment

Closed, level percent of payroll

Varies between 0 and 30 years, by employer

5-year smoothed market

7.25% 3.25% - 7.15%

Contingent upon investment return, with a maximum of the lower of 4% or cumulative CPI since retirement

Notes to Financial Statements (continued)

(3) Investments and Deposits

The LAGERS Board of Trustees has the fiduciary responsibility and authority to oversee the investment portfolio. The purpose of LAGERS' investment fund is to accumulate the financial reserves necessary to provide for the retirement or pensioning of employees and beneficiaries of member political subdivisions in the state of Missouri. Various professional investment managers are contracted to manage the LAGERS' assets. Investment decisions are subject to statutory regulations and the Statement of Investment Policy and Objectives adopted by the LAGERS Board of Trustees.

LAGERS' asset allocation is an important determinant of achieving the investment goals of the fund. An asset allocation study is conducted at least every five years to assess portfolio construction and design. Factors influencing the allocation include projecting actuarial liabilities, historical and expected long-term market returns and risk, future economic conditions, inflation and interest rate risks and liquidity requirements.

Investment manager selection is an important decision involving complex due diligence. Managers are selected after a lengthy and time consuming process involving a review of the quantitative and qualitative components as well as the manager's investment process. Once selected, managers are monitored and reviewed for investment performance.

Other investment processes and procedures include daily capital calls, cash flow reconciliations, trade settlements, weekly portfolio review, monthly account reconciliations, performance reporting and reviews, quarterly conference calls and asset reallocation reviews.

A summary of the investment policy can be found on pages 55-58.

The annual money weighted rate of return on pension plan investments is calculated as the internal rate of return on pension plan investments, net of investment expenses. This expresses investment performance adjusted for the changing amounts actually invested throughout the year, measured on monthly inputs with expenses measured on an accrual basis. For the fiscal year 2019, the annual money weighted rate of return net of investment expenses measured on monthly inputs was 7.12 percent.

There are no investment funds where the portfolio of the fund exceeds 5 percent of the fiduciary net position.

Deposits:

Custodial credit risk for deposits is the risk that, in the event of a financial institution failure, LAGERS' deposits may not be returned. The deposits are held in one financial institution with a balance of up to \$250,000 insured by the Federal Deposit Insurance Corporation (FDIC). LAGERS mitigates custodial credit risk for deposits by requiring the bank to pledge securities in an amount over the FDIC insured amount at least equal in fair value to 100 percent of the aggregate amount of the deposits. These securities are required to be delivered to a third party institution mutually agreed upon by the bank and LAGERS.

Investment Policies:

The Missouri Revised Statutes prescribe the "prudent person rule" as LAGERS investment authority. The rule requires LAGERS to make investments with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims. Within the "prudent person" framework, the Board of Trustees adopts investment guidelines for LAGERS investment managers that are included within the respective management agreements. The Investment Section contains a summary of these guidelines.

Investment Summary:

The following table presents the summary of LAGERS investments by type at June 30, 2019.

Short-term investments	\$ 252,461,190
Government bonds	826,075,517
Corporate bonds	286,403,343
International bonds	599,758,985
Mortgages & asset backed securities	217,440,501
Domestic stocks	623,222,483
International stocks	707,967,583
Real estate	846,133,680
Partnerships	3,088,563,909
Absolute return	832,182,133
Other alternative investments	49,801,105
Total	\$ 8,330,010,429

The investments listed below are not listed on national exchanges, over-the-counter markets, nor do they have quoted market prices available.

Bank loans	\$ 110,716,085*
Partnerships	3,088,563,909
Real estate	846,133,680
Absolute return	832,182,133
Total	\$ 4,877,595,807

^{*}Bank loans are included in corporate bonds in the investment summary.

LAGERS values these investments in good faith based upon audited financial statements or other information provided to LAGERS by the underlying investment managers. The estimated fair value of these investments may differ significantly from values that would have been used had a ready market existed.

Fair Value Measurements:

LAGERS categorizes their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

- Level 1 Unadjusted quoted prices for identical instruments in active markets.
- Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System assessment of the significance of particular inputs to these fair value measurements requires judgement and considers factors specific to each asset or liability. The table on pages 30 and 31 shows the fair value leveling of the investments for the System.

The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument and should not be perceived as the particular investment's risk.

Assets classified in Level 1 of the fair value hierarchy are valued directly from a predetermined primary external pricing vendor. Assets classified in Level 2 are subject to pricing by an alternative pricing source due to lack of information available by the primary vendor. Real estate and Partnership assets classified in Level 3, due to lack of an independent pricing source, are valued using an internal fair value as provided by the investment manager.

Notes to Financial Statements (continued)

Investments and Derivative Instruments Measured at Fair Value

		Fair Value		Level 1		Level 2		Level 3
Investments by fair value level								
US Government Bonds Government bonds Municipal/provincial bonds Index linked government bonds Fixed income derivatives - options Total US government bonds	\$	472,350,277 6,288,318 347,467,520 (30,598) 826,075,517	\$	(28,219) (28,219)		472,350,277 6,288,318 347,467,520 (540) 826,105,575	\$	(1,839) (1,839)
	Ψ	020,073,317	Ψ	(20,219)	Ψ	020,103,373	Ψ	(1,059)
US Corporate Bonds Bank loans Corporate bonds Total US Corporate Bonds	\$	110,716,085 68,268,285 178,984,370			\$	3,333,360 65,268,285 68,601,645		07,382,725 3,000,000 110,382,725
International Bonds			· 					
Corporate bonds Corporate convertible bonds	\$	134,836,444 2,196,901			\$	134,836,444 2,196,901		
Fixed income derivatives - options		(422)				(422)		
Government agencies Government bonds		15,062,952 149,153,776				15,062,952 149,153,776		
Index linked government bonds		292,889,563				76,987,239	\$ 2	215,902,324
Municipal/Provincial bonds		5,619,771				5,619,771	Ψ-	10,002,021
Total International Bonds	\$	599,758,985			\$	383,856,661	\$ 2	215,902,324
Mortgages & asset backed securities			· 					
Asset backed securities	\$	102,124,089			\$	32,289,589	\$	69,834,500
Commercial mortgage-backed		2,605,152				2,605,152		
Government mortgage backed securities		95,576,400				95,212,518		363,882
Gov't-issued commercial mortgage backed		521,143				521,143		
Non-Government backed C.M.O.s	\$	16,613,717 217,440,501	<u> </u>		ф	16,613,717 147,242,119	\$	70,198,382
Total Mortgages & asset backed securities	Ф	217,440,501			Ф	147,242,119	Ψ	10,190,302
Domestic Stock	φ.	E77 E44 070	 	74 000 055	Φ.	24.000	<u>_</u> ا	6 460 607
Common stock Preferred stock	\$	577,511,872	3 5	71,008,855	\$	34,380	\$	6,468,637
Rights/Warrants		45,633,352 77,259		77,259				45,633,352
Total Domestic Stock	\$	623,222,483	\$ 5	571,086,114	\$	34,380	\$	52,101,989

Investments and Derivative Instruments Measured at Fair Value (continued)

		Fair Value	Level 1	Level 2		Level 3
Investments by fair value level	Ī					
International Stock						
Common stock	\$	529,269,055	\$ 527,915,661	\$ 10,985	\$	1,342,409
Funds - common stock		1,669,442	1,669,442			
Other equity assets		633,404	633,404			
Preferred stock		4,153,282	4,153,282			
Rights/Warrants		118,886	123,971	(5,085)		
Stapled securities		(1,438,744)	(1,598,533)	159,789		
Total International Stock	\$	534,405,325	\$ 532,897,227	\$ 165,689	\$	1,342,409
Other Alternative Investments	П					
Exchange cleared swaps - other assets	\$	2,041,546	\$ 102,848	\$ 1,938,698		
Other options		(2,440)		(2,440)		
Settlement receivables		6,640			\$	6,640
Swaps		11,271,015		7,691,419		3,579,596
Miscellaneous		36,484,344		21,830		36,462,514
Total Other Alternative Investments	\$	49,801,105	\$ 102,848	\$ 9,649,507	\$	40,048,750
Real Estate	\$	846,133,680			\$	846,133,680
Partnerships	\$3	3,088,563,909			\$	3,088,563,909
Total investment measured at fair value level	\$6	5,964,385,875	\$ 1,104,057,970	\$ 1,435,655,576	\$ 4	4,424,672,329
Investments exempt from fair value hierarchy						
Short term investments	\$	252,461,190				
Total investments exempt	\$	252,461,190				
Investments measured at the net asset value (NAV)	П					
US corporate bonds	\$	107,418,973				
International stocks		173,562,258				
Absolute return		832,182,133				
Total investments measured at the NAV	\$	1,113,163,364				
Total investments measured at fair value	\$	8,330,010,429				

Notes to Financial Statements (continued)

Investments Measured at the NAV

	Fair Value	Strategy Type	Fund Life of Non- redeemable mandates	Unfunded Commitments	Redemption Frequency (if currently eligble)	Redemption Notice Period		Restriction Time Remaining
US corporate bonds								
Funds - corporate bond	\$ 42,792,230	Active Global Fixed Income	N/A		Daily, Monthly	1 - 5 days	N/A	N/A
Funds - other fixed income	64,626,743	Active US Fixed Income	N/A		Daily	1 day	N/A	N/A
International stocks								
Funds - common stock	173,562,258	Active EM Equity	N/A		Daily	1 day	N/A	N/A
Absolute return								
Hedge equity	137,455,310	Market Neutral	N/A		Monthly	5 - 60 days	N/A	N/A
Hedge event driven	53,121,077	Multi-strategy	N/A		Quarterly	60 days	1 yr initial lock-up	N/A
Hedge market dependent	104,431,657	Managed Futures, Market Neutral	N/A		Weekly, Monthly	1 - 5 days	N/A	N/A
Hedge market independent	341,519,465	Market Neutral	N/A		Monthly	10 days	\$1mm minimum	N/A
Hedge multi strategy	195,654,624	Market Neutral	N/A		Monthly	5 days	N/A	N/A
Total investments measured at the NAV	\$1,113,163,364							

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the table above.

Absolute Return: This asset class provides diversification to the total portfolio and strives to reduce total fund volatility while
also enhancing the total return of the portfolio. The strategies underlying this asset class commonly are referred to as hedge
funds, which are investment funds that can undertake a wider range of investment and trading activities than other mandates.
Most often, hedge funds as a class will trade liquid securities on public markets but may also engage in private transactions.
The following sub-asset classes contain hedge funds and their strategies are explained in greater detail on the next page:

- Hedge Equity. This sub-asset class contains three funds in which the strategy are considered Market Neutral. It
 attempts to exploit pricing inefficiencies between related securities, balancing long and short exposures helping to
 reduce market risk.
- Hedge Event Driven. This sub-asset class is a hedge fund investment strategy that seeks to exploit pricing
 inefficiencies that may occur before or after a corporate event, such as an earnings call, bankruptcy, merger,
 acquisition, or spinoff. Event-driven investing strategies are typically used only by sophisticated investors, such
 as hedge funds and private equity firms because traditional equity investors, including managers of equity mutual
 funds, do not have the expertise or access to information necessary to properly analyze the risks associated with
 many of these corporate events.
- Hedge Market Dependent. This sub-asset class contains two funds. One fund has a Managed Futures strategy, using tools like futures and options to gain the necessary exposure to equities, bonds, rates, currencies, and commodities to implement a long term trend following and directional strategy. The other fund has a Market Neutral strategy. It attempts to exploit pricing inefficiencies between related securities, balancing long and short exposures helping to reduce market risk.
- Hedge Market Independent. This sub-asset class contains one fund in which the strategy is considered Market
 Neutral. It attempts to exploit pricing inefficiencies between related securities, balancing long and short exposures
 helping to reduce market risk.
- Hedge Multi Strategy. This sub-asset class contains three funds in which the strategy are considered Market Neutral. It attempts to exploit pricing inefficiencies between related securities, balancing long and short exposures helping to reduce market risk.

Custodial Credit Risk for Investments:

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, LA-GERS will not be able to recover the value of investments or collateral securities that are in the possession of an outside party. LAGERS does not have a formal policy for custodial credit risk. As of June 30, 2019, investments in the amount of \$16,206,487 were uninsured and unregistered, with securities held by the counter party or by its trust department or agent but not in LAGERS name.

Concentration of Credit Risk:

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government's investment in a single issue. External investment management firms manage the fixed income portfolio. The allocation of assets among various asset classes is set by the Board with the objective of optimizing the investment return of LAGERS with framework of acceptable risk and diversification. As of June 30, 2019, no single issue exceeded 5 percent of the portfolio, excluding U.S. government securities.

Notes to Financial Statements (continued)

Credit Risk:

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to LAGERS. LAGERS does not have a formal policy relating to credit risk. At June 30, 2019, 33 percent of the underlying fixed income assets represent obligations that are not guaranteed by the U.S. government. Below is a list of fixed income credit qualities.

Quality Rating

	,	\AA +/-	AA⁺	·/-		A+/-	ВІ	3B ^{+/-}		Investment e/Not Rated	Total
US corporate bonds					\$ 7,	314,763	\$ 24,2	253,887	\$ 254	1,834,693#	\$ 286,403,343
US government bonds			\$ 814,414	,477			6,0	94,002	į	5,567,038	826,075,517
International bonds	\$ 60	,442,090	136,516	6,847	127	,844,813	84,9	26,038	190	0,029,197	599,758,985
Mortgage/asset backed securities						684,873			21	6,755,628	217,440,501

[#]Non-investment grade/not rated corporate bonds include investments in corporate bond funds, which include individually rated securities but are not rated at the fund level, as well as bank loans. As of June 30, 2019, corporate bond funds totaled \$42,792,230 and bank loans totaled \$110,716,085.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of a debt instrument's exposure to a change in interest rates and the related sensitivity of market price to parallel shifts in the yield curve. It uses the present value of cash flows, weighted for those cash flows as a percentage of the instruments' full price. LAGERS does not have a formal policy relating to interest rate risk. LAGERS benchmarks for the fixed income portfolio include the Consumer Price Index plus 4 percent (Private Fixed Income), Barclays Capital US Aggregate Bond Index, Barclays Capital US 20+ Year Treasury Bond Index, and 38% JP Morgan EMBI Global Diversified, 38% JP Morgan GBIEM Global Diversified, 38% JP Morgan CEMBI Broad Diversified. At June 30, 2019, the effective duration for the fixed income benchmark portfolio was 4.3 years, whereas, the LAGERS fixed income portfolio had an effective duration of 8.3 years.

Investment	Fair Value	Duration Rate
Government bonds Corporate bonds Mortgage & asset - backed securities	\$ 1,288,801,157 423,436,688 217,440,501	11.4 years 2.8 years 2.1 years
Total	\$ 1,929,678,346	

Foreign Currency Risk:

The international portfolio is constructed on the principles of diversification, quality, value and growth. Risk of loss arises from changes in currency exchange rates. LAGERS' external managers may or may not hedge the portfolio's foreign currency exposures with currency forward contracts depending upon their views on a specific foreign currency relative to the U.S. dollar. Currency trading may not be used for speculative purposes. LAGERS does not have a formal policy relating to foreign currency risk, as this is handled at the manager level. LAGERS exposure to foreign currency risk can be found on the next page:

Currency Australian dollar Argentine peso Brazilian real British pound Canadian dollar Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	Foreign Equities \$ 10,084,752 21,370,824 39,109,517 14,742,950 475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	Foreign Fixed Income \$ 9,720,052 8,507,775 87,151,017 16,633,052 12,640,853 18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803 (1,353,631)	Total \$ 19,804,804 8,507,775 108,521,841 55,742,569 27,383,803 18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680 201,306,420
Australian dollar Argentine peso Brazilian real British pound Canadian dollar Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	\$ 10,084,752 21,370,824 39,109,517 14,742,950 475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	\$ 9,720,052 8,507,775 87,151,017 16,633,052 12,640,853 18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	\$ 19,804,804 8,507,775 108,521,841 55,742,569 27,383,803 18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
Argentine peso Brazilian real British pound Canadian dollar Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	21,370,824 39,109,517 14,742,950 475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	8,507,775 87,151,017 16,633,052 12,640,853 18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	8,507,775 108,521,841 55,742,569 27,383,803 18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
Brazilian real British pound Canadian dollar Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	39,109,517 14,742,950 475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	87,151,017 16,633,052 12,640,853 18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	108,521,841 55,742,569 27,383,803 18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
British pound Canadian dollar Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	39,109,517 14,742,950 475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	16,633,052 12,640,853 18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	55,742,569 27,383,803 18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
Canadian dollar Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	14,742,950 475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	12,640,853 18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	27,383,803 18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
Chilean peso Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	475,198 9,259,308 7,644,658 87,307,617 50,713,870 671,427	18,150,621 2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	18,625,819 11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
Chinese yuan renminbi (offshore) Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	9,259,308 7,644,658 87,307,617 50,713,870 671,427	2,275,681 15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	11,534,989 15,676 15,128,754 1,801,646 10,397,423 2,674,680
Chinese yuan renminbi Colombian peso Czech koruna Danish krone Egyptian pound Euro	7,644,658 87,307,617 50,713,870 671,427	15,676 15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	15,676 15,128,754 1,801,646 10,397,423 2,674,680
Colombian peso Czech koruna Danish krone Egyptian pound Euro	87,307,617 50,713,870 671,427	15,128,754 1,801,646 2,752,765 2,674,680 113,998,803	15,128,754 1,801,646 10,397,423 2,674,680
Czech koruna Danish krone Egyptian pound Euro	87,307,617 50,713,870 671,427	1,801,646 2,752,765 2,674,680 113,998,803	1,801,646 10,397,423 2,674,680
Danish krone Egyptian pound Euro	87,307,617 50,713,870 671,427	2,752,765 2,674,680 113,998,803	10,397,423 2,674,680
Egyptian pound Euro	87,307,617 50,713,870 671,427	2,674,680 113,998,803	2,674,680
Euro	50,713,870 671,427	113,998,803	
	50,713,870 671,427		
Hong Kong dollar	671,427	((((((((((((((((((((49,360,239
Hungarian forint		376,393	1,047,820
Indonesian rupiah	4,210,613	12,530,413	16,741,026
Indian rupee	33,311,037	5,707,514	39,018,551
Israeli shekel	5,012,797	8,273,708	13,286,505
Japanese yen	38,757,763	37,251,387	76,009,150
Kazakhstan tenge	33,131,133	760,161	760,161
Kuwaiti dinar		10	10
Malaysian ringgit	7,514,811	727,811	8,242,622
Mexican peso	5,243,186	53,373,739	58,616,925
New Zealand dollar	(6,004)	1,564,822	1,558,818
Nigerian naira	1,170,117	.,00.,022	1,170,117
Norwegian krone	4,433,978	3,089,215	7,523,193
Pakistan rupee	2,751,968	(51,023)	2,700,945
Peruvian Nuevo sol	, - ,	6,045,257	6,045,257
Philippine peso	3,623,959	709,416	4,333,375
Polish zloty	1,437,036	3,375,988	4,813,024
Qatari riyal	1,364,107	(21)	1,364,086
Romanian leu		409,228	409,228
Russian ruble	514,098	10,768,926	11,283,024
Singapore dollar	6,288,758	238,449	6,527,207
South African rand	4,526,033	14,030,020	18,556,053
South Korean won	47,001,613	7,779,757	54,781,370
Swedish krona	2,226,880	4,363,846	6,590,726
Swiss franc	16,073,124	1,466,557	17,539,681
Taiwan dollar	50,363,974	(280,279)	50,083,695
Thai baht	17,540,856	2,901,790	20,442,646
Turkish lira	5,400,696	23,551,431	28,952,127
United Arab Emirates dirham	254,164		254,164
Uruguayan peso	,	141,276	141,276
Vietnamese dong		488,060	488,060
	\$ 500,395,685	\$ 489,691,595	\$ 990,087,280

Notes to Financial Statements (continued)

Derivatives

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. They include futures contracts, swap contracts, options contracts, and forward foreign currency exchange contracts. The tables below summarize the various contracts in the portfolio as of June 30, 2019.

Through LAGERS external managers, LAGERS holds investments in futures contracts, swap contracts, option contracts, and forward foreign currency exchange contracts. LAGERS enters futures and swaps contracts to gain exposure to certain markets and to manage interest rate risk and enters into forward foreign exchange contracts primarily to hedge foreign currency exposure.

The notional values associated with these derivative instruments are generally not recorded in the financial statements; however, the amounts for the exposure of these instruments are recorded in the Statement of Fiduciary Net Position and the total changes in fair value for the year are included as investment income in the Statement of Changes in Fiduciary Net Position. For the year ended June 30, 2019, the change in fair value in futures contracts resulted in \$43 million of investment income, options contracts resulted in \$966 thousand of investment income, swaps contracts resulted in \$30.8 million of investment loss, and forwards contracts resulted in \$3.5 million of investment income. LAGERS does not anticipate additional significant market risk from the swap arrangements.

	Notional Value	Unrealized Gain (Loss)
Futures	\$ 1,808,374,539	
Swaps	511,586,702	\$ 13,151,222
Forwards		
Foreign exchange contracts	920,599,268	3,752,019
Options		
Margined options	144,969	
Caps and floors	16,368,519	99,857
Options	8,335,250	(27,322)
Options on futures	10,365,469	(1,173)
Swaptions	25,372,592	17,966
	\$ 3,301,147,308	\$ 16,992,569

LAGERS could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. LAGERS anticipates that the counterparties will be able to satisfy their obligations under the contracts.

At June 30, 2019, the counterparties' credit ratings for futures, forwards, swaps, and options are subject to credit risk as shown in the table below. Derivative instruments traded on the exchange are not subject to counterparty risk and therefore are not included in the table below.

Derivatives Counterparty Credit Ratings

Quality	Forwards	Swaps	Options	Total
AA-		\$ (5,940)	\$ (5,604)	\$ (11,544)
A+		22,119,430	(16,305)	22,103,125
Α		6,110,570	(780)	6,109,790
A-		41,464		41,464
BBB+		1,865,122	(422)	1,864,700
Not available or not rated	\$ 3,752,019	(16,949,748)	(28,321)	(13,226,050)
Total subject to credit risk	\$ 3,752,019	\$ 13,180,898	\$ (51,432)	\$ 16,881,485

Securities Lending Program:

LAGERS participates in a securities lending program administered by Northern Trust Company (the custodian) in accordance with the provisions of RSMo. 70.745. A firm chosen to lend financial securities of the fund has full discretion over the selection of borrowers and shall continually review credit worthiness of potential borrowers through adequate analysis of all material provided to them. The securities lending program shall in no way inhibit the trading activities of the investment managers of the System. The securities lending agent and Investment Team have created separate investment guidelines for the investment of cash collateral to adhere to the Statement of Investment Policy and Objectives.

LAGERS or the borrower can terminate any security loan on demand. Though any loaned security can be sold and reclaimed at any time from the borrower, the weighted average loan life of overall loans was 311 days as of June 30, 2019. Cash collateral is invested in a custom collateral account through Northern Trust Company with a weighted average life of 56 days. LAGERS cannot pledge or sell non-cash collateral unless the borrower defaults. The following table represents the balances relating to the securities lending transactions (in thousands) at June 30, 2019.

Securities on Loan	Underlying Securities	Secur	rities Collateral Value	Cas	sh Collateral Value
U.S. Government & Agency Securities International Bonds U.S. Corporate Bonds U.S. Equities Global Equities	\$ 328,733 34,236 23,062 100,455 54,308	\$	2,488 25,907 243 46,813	\$	332,656 6,646 23,533 101,625 4,342
Total	\$ 540,794	\$	75,451	\$	468,802

The lending agent provides indemnification if the borrowers fail to return the underlying securities (and if the collateral is inadequate to replace the securities lent) or fails to pay income distributions. There were no violations of legal or contractual provisions and no borrower or lending agent default losses to the security lending agent. LAGERS had no credit risk as a result of its securities lending program as the collateral held exceeded the fair value of securities lent.

(4) Contributions

- (a) Each participating unit of local government is obligated by state law to make all required contributions to the plan based upon an annual actuarial valuation.
- (b) LAGERS is a pension plan covering substantially all employees of participating units of local government in the state. Each participating unit of government is obligated by state law to make all required contributions to the plan. The required contributions are actuarially determined using the individual entry-age actuarial cost method. There are no long-term contracts for contributions to the plan. All liabilities are amortized over a period of 30 years or less. Assumed administrative expenses are added to the Normal Cost and were 0.4 percent of payroll.
- (c) Employee contributions are determined at the election of the governing body of the local subdivision. Should the governing body elect to participate in the contributory plan, all employees shall contribute 4 percent of gross salary. The governing body may elect to participate in the non-contributory plan which would result in no employee contributions.
- (d) The state statutes require LAGERS to maintain five separate reserves which are funded and described below:

Member Reserve Fund — The fund in which member contributions and interest credits are accumulated, and from which transfers are made for retirements and refunds, as applicable. The balance at June 30, 2019, was \$164,715,384.

Employer Reserve Fund — The fund in which employer contributions and interest credits are accumulated, and from which transfers are made to pay applicable benefits. The fund from which contributions are accumulated and benefit payments in excess of IRC Section 415 are made. The balance at June 30, 2019, was \$3,878,917,002.

Notes to Financial Statements (continued)

Benefit Reserve Fund — The fund from which all retirement, disability, survivor and certain deferred retirants due to Legacy Plans benefits are paid. At the time of retirement, this fund receives the necessary transfers to pay such benefits. All retired individuals and the assets of this fund become the sole responsibility of the LAGERS Board of Trustees and result in no further liabilities to the previous employers. The balance at June 30, 2019, was \$4,111,647,822.

Casualty Reserve Fund — The fund in which the employer contributions and interest credits are accumulated and from which transfers are made to pay for members retired as a result of disability or whose death is duty related. The balance at June 30, 2019, was \$20,303,597.

Income-Expense Reserve Fund — The fund which accumulates the investment income and pays the administrative expenses of the system. This fund provides for the transfer of administrative expenses and investment credits to the other reserves of the system. The remaining balance at June 30, 2019 was \$733,251, which is equal to the net of the current year pension gain and OPEB gain for the LAGERS Staff Retirement Plan and LAGERS Postemployment Benefit Plan, respectively.

(5) LAGERS Staff Retirement Plan

Summary of Significant Accounting Polices

Pensions. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the LAGERS Staff Retirement Plan (LSRP) and additions to/deductions from LSRP fiduciary net position have been determined on the same basis as they are reported by the LSRP. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

General Information about the Pension Plan

Plan description. The LSRP is a single-employer defined benefit pension plan administered by the LAGERS Board of Trustees. The plan provides retirement, death and disability benefits to LAGERS employees and beneficiaries. The plan document is controlled by the LAGERS Board of Trustees.

Benefits provided. The LSRP provides retirement, death and disability benefits. Benefit provisions are adopted by the LAGERS Board of Trustees. All benefits vest after five years of credited service. Employees who retire on or after age 60 with five or more years of service are entitled to an allowance for life based upon the benefit program information provided below. Employees may retire with an early retirement benefit with a minimum of five years of credited service and after attaining age 55 and receive a reduced allowance.

Benefit Multiplier	2%
Final Average Salary	3Years
Member Contributions	0%

Benefit terms provide for annual post retirement adjustments to each member's retirement allowance subsequent to the member's retirement date. The annual adjustment is based on the increase in the Consumer Price Index and is limited to 4 percent each year.

Employees covered by benefit terms. At June 30, 2019, the following employees were covered by the benefit terms:

Retirees or beneficiaries currently receiving benefits	10
Inactive employees entitled to but not yet receiving benefits	1
Active employees	34
Total	45

Contributions. LAGERS is required to contribute amounts at least equal to the actuarially determined rate. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance an unfunded accrued liability. Full-time employees do not contribute to the pension plan. The employer contribution rate was 13.77 percent of annual covered payroll.

Net Pension Liability. The employer's net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2019.

Actuarial assumptions. The total pension liability in the June 30, 2019, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.25%
Salary Increase	3.25% to 6.55%, including wage inflation
Investment rate of return	5.50%

Mortality rates were based on the RP-2014 mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006.

The actuarial assumptions used in the June 30, 2019, valuation were based on the results of an actuarial experience study for the period March 1, 2010, through February 28, 2015.

The long-term expected rate of return on pension plan investments was determined using a model method in which the best-estimate ranges of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges 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. The target allocation and a weighted average of the geometric real rates of return for each major asset class rollup are summarized in the following table:

	Target	Long-Term Expected
Asset Class	Allocation	Real Rate of Return
Equity	39.00%	4.16%
Fixed Income	28.00	0.89
Real Assets/Real Return	33.00	2.09

Discount rate. The discount rate used to measure the total pension liability is 5.5 percent. The projection of cash flows used to determine the discount rate assumes that employer contributions will be made at the actuarially determined rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to pay all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payment to determine the total pension liability.

Changes in Net Pension Liability

	Increase (Decrease)					
	Total Pension Liability (a)		Plan Fiduciary Net Position (b)			Net Pension Liability (a) - (b)
Balances at 6/30/2018	\$	13,374,625	\$	11,637,334	\$	1,737,291
Changes for the year						
Service cost		345,616				345,616
Interest		966,929				966,929
Difference between expected and actual experience		522,716				522,716
Assumption changes*		4,090,932				4,090,932
Contributions - employer				2,110,653		(2,110,653)
Net investment income				735,076		(735,076)
Benefit payments including refunds		(420,962)		(420,962)		
Net changes		5,505,231		2,424,767		3,080,464
Balances at 6/30/2019	\$	18,879,856	\$	14,062,101	\$	4,817,755

^{*}Change in the investment rate of return

Sensitivity of the net pension liability to changes in the discount rate. The following presents the Net Pension Liability of the employer, calculated using the discount rate of 5.5 percent, as well as what the employer's Net Pension Liability would be using a discount rate that is 1 percentage point lower (4.5%) or one percentage point higher (6.5%) than the current rate.

		Current	
		Single Discount	
	1% Decrease	Rate Assumption	1% Increase
ſ	4.50%	5.50%	6.50%
	\$8,259,342	\$4,817,755	\$2,060,816

Plan fiduciary net position. Detailed information about the plan's fiduciary net position is available in the separately issued financial statements. The LAGERS Board of Trustees issues a publicly available audited financial report that includes financial statements and required supplementary information for the LSRP. This report can be obtained by contacting the LAGERS office.

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions For the year ended June 30, 2019, the employer recognized pension gain of \$572,052. The employer reported deferred outflows and inflows of resources related to pensions from the following sources:

	o	Deferred Outflows f Resources	Deferred Inflows Resources
Difference in experience	\$	1,821,884	\$ 208,960
Changes in assumptions		3,733,643	
Net difference of investment returns		214,534	171,294
Total	\$	5,770,061	\$ 380,254

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ending	
2020	\$ 845,362
2021	771,842
2022	857,488
2023	922,212
2024	834,438
Thereafter	1,158,465
	\$ 5,389,807

Payable to the Pension Plan

As of June 30, 2019, there are no payables for the outstanding amount of contributions to the pension plan required for the year ended June 30, 2019.

(6) Staff Postemployment Healthcare Supplement

Summary of Significant Accounting Policies

Postemployment Benefits Other Than Pensions (OPEB). For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the LAGERS Staff Retiree Healthcare Supplement (LSRHS) and additions to/deductions from LSRHS fiduciary net position have been determined on the same basis as they are reported by LSRHS. For this purpose, LSRHS recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for money market investments and participating interest-earning investment contracts that have a maturity at the time of purchase of one year or less, which are reported at cost.

General Information about the OPEB Plan

Plan description. LSRHS is a single-employer defined benefit healthcare supplement administered by the LAGERS Board of Trustees. The LSRHS provides a healthcare subsidy to eligible staff retirees, spouse and minor children. The supplement does not provide access to retiree health coverage but will pay for a portion of a retiree's health premium (subsidy) based upon coverage the retiree is able to obtain through the open market. To be eligible for the subsidy a retiree must have at least 10 years of service credit and retire from active status.

Benefits provided. The subsidy is equal to 2.5 percent multiplied by years of credited service (maximum 30 years) multiplied by healthcare premium. Under no circumstances can the healthcare premium exceed the premium LAGERS would pay for an active member of the same age participating in the LAGERS Staff healthcare plan.

Inactive employees or beneficiaries currently receiving benefit payments	8
Inactive employees entitled to but not yet receiving benefits	0
Active employees	30
Total	38

Employees covered by benefit terms. At June 30, 2019, the following employees were covered by the benefit terms:

Contributions. The Board establishes rates based on an actuarially determined rate. For the year ended June 30, 2019, the contribution rate was 1.79 percent of covered payroll. Employees are not required to contribute to the plan.

Net OPEB Liability. The employer's net OPEB liability was measured as of June 30, 2019, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2019.

Actuarial assumptions. The total OPEB liability in the June 30, 2019, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	3.25%, including price inflation
Salary Increase	3.25% to 6.55%, including wage inflation
Investment rate of return	5.50%
Healthcare cost trend rates	9% for 2019, decreasing .75% per year until 2024 then decreasing .50% until 2028 to
	an ultimate rate of 3.25% for 2028 and later years

Mortality rates were based on the RP-2014 mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006.

The actuarial assumptions used in the June 30, 2019, valuation were based on the results of an actuarial experience study for the period March 1, 2010, through February 28, 2015.

The long-term expected rate of return on OPEB plan investments was determined using a model method in which the best-estimate ranges of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges 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. The target allocation and a weighted average of the geometric real rates of return for each major asset class rollup are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Equity	42.00%	4.19%
Fixed Income	28.00	1.06
Real Assets/Real Return	30.00	2.36

Discount rate. The discount rate used to measure the total OPEB liability was 5.5 percent. The projection of cash flows used to determine the discount rate assumes that employer contributions will be made at the actuarially determined rates. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be available to pay all projected future benefit payments of current active employees. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payment to determine the total OPEB liability.

Changes in Net OPEB Liability

	Increase (Decrease)					
		Total OPEB Plan Fiduciary Liability Net Position (a) (b)			L	Net OPEB iability (Asset) (a) - (b)
Balances at 6/30/2018	\$	1,729,346	\$	1,913,741	\$	(184,395)
Changes for the year						
Service cost		60,805				60,805
Interest		126,173				126,173
Difference between expected and actual experience						
Assumption changes*		617,551				617,551
Contributions - employer				60,284		(60,284)
Net investment income				110,950		(110,950)
Benefit payments including refunds		(38,871)		(38,871)		
Net changes		765,658		132,363		633,295
Balances at 6/30/2019	\$	2,495,004	\$	2,046,104	\$	448,900

^{*} Change in the investment rate of return.

Sensitivity of the net OPEB liability to changes in the discount rate and healthcare cost trend rates. The following presents the net OPEB liability of LAGERS as well as what LAGERS' net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.5 percent) or 1-percentage-point higher (6.5 percent) than the current discount rate:

Current Single Discount								
1% Decrease	1% Decrease Rate Assumption 1% Increas							
4.50%	5.50%	6.50%						
\$933,672	\$448,900	\$65,567						

Sensitivity of the net OPEB liability to changes in the discount rate and healthcare cost trend rates. The following presents the net OPEB liability of LAGERS as well as what LAGERS' net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rate:

Healthcare Cost Trend								
1% Decrease	Rate Assumption	1% Increase						
\$53,649	\$448,900	\$937,430						

OPEB plan fiduciary net position. Detailed information about the OPEB plan's fiduciary net position is available in the separately issued financial statements. The LAGERS Board of Trustees issues a publicly available audited financial report that includes financial statements and required supplementary information for the LSRHS. This report can be obtained by contacting the LAGERS office.

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2019, LAGERS recognized an OPEB gain of \$161,199. The employer reported deferred outflows and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows Resources	eferred nflows Resources
Difference in experience		\$ 80,464
Changes of assumptions	\$ 657,471	
Net difference of investment returns	33,092	
Total	\$ 690,563	\$ 80,464

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Payable to the OPEB Plan

Year Ending	
2020	\$ 88,544
2021	88,544
2022	88,542
2023	85,134
2024	79,418
Thereafter	179,917
	\$ 610,099

At June 30, 2019, there are no payables for the outstanding amount of contributions to the OPEB plan required for the year ended June 30, 2019.

(7) Long-term Debt and Line of Credit

In December 2018, LAGERS entered into a revolving credit agreement with Bank of America, N.A. consisting of a line of credit not to exceed \$300 million. Under the terms of the credit agreement, each revolving loan shall bear interest on the outstanding principal amount thereof at a rate per annum equal to the LIBOR Daily Floating Rate plus an applicable spread of .95%. LAGERS leverage ratio at June 30, 2019, was approximately 1.32.

Long-term debt at June 30, 2019 consists of a revolving loan of \$200 million, maturing on December 17, 2021.

The credit agreement contains covenants customary for financings of this type, including, but not limited to, financial covenants, which are tested as of the end of each fiscal quarter and requires that LAGERS Fair Value-Total Fund Investment Assets shall not be less than \$5 billion at any time and LAGERS Funded Ratio shall not be less than 65% at any time. LAGERS was in compliance with these financial covenants at June 30, 2019.

(8) Commitments and Contingencies

LAGERS has committed \$7,100,573,914 of which \$4,733,335,787 has been invested, leaving total unfunded commitments to real estate, private equity, and other alternative investments of \$2,367,238,127 as of June 30, 2019. The total unfunded investment commitments are not recorded in the accompanying Statement of Fiduciary Net Position.

(9) Risk Management

LAGERS is exposed to various risks of loss related to natural disasters, errors and omissions, loss of assets, torts, etc. LAGERS has chosen to cover such losses through the purchase of commercial insurance. There have been no material insurance claims filed or paid during the past three years.

LAGERS has a disaster recovery plan that provides for continued computer operations at a remote location should the retirement office be unavailable for normal operations.

Required Supplementary Information

SCHEDULE OF INVESTMENT RETURNS

Schedule of Investment Returns								
	2019	2018	2017	2016	2015	2014		
Annual money weighted rate of return (IRR) net of investment expenses	7.12%	13.70%	12.44%	(0.22)%	2.07%	19.03%		

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years where information is available.

LAGERS STAFF RETIREMENT PLAN

Schedule	e of Changes	in Net Pens	ion Liability			
Fiscal Year Ending June 30	2019	2018	2017	2016	2015	2014
Total pension liability						
Service cost	\$ 345,616	\$ 338,728	\$ 279,933	\$ 269,096	\$ 248,381	\$ 233,620
Interest on total pension liability	966,929	817,596	722,819	643,321	635,359	575,236
Difference between expected						
and actual experience	522,716		586,625		(553,190)	313,742
Assumption changes	4,090,932			341,762		
Benefit payments	(420,962)	, ,	, , ,	(, ,		, , ,
Net change in total pension liability	\$ 5,505,231	\$ 2,070,084	\$ 1,359,793	\$ 1,094,613	\$ 90,958	\$ 760,792
Total Pension Liability - Beginning	\$13,374,625	\$11,304,541	\$ 9,944,748	\$ 8,850,135	\$ 8,759,177	\$7,998,385
Total Pension Liability - Ending (a)	\$18,879,856	\$13,374,625	\$11,304,541	\$ 9,944,748	\$ 8,850,135	\$8,759,177
Plan fiduciary net position						
Employer contributions	\$ 2,110,653	\$ 363,705	\$ 318,068	\$ 371,358	\$ 372,741	\$ 769,001
Pension plan net investment income	735,076	779,735	1,132,266	305,689	18,466	1,365,280
Benefit payments	(420,962)	(393,426)	(229,584)	(222,579)	(239,592)	(361,806)
Net change in fiduciary net position	\$ 2,424,767	\$ 750,014	\$ 1,220,750	\$ 454,468	\$ 151,615	\$1,772,475
Plan Fiduciary Net Postion - Beginning	\$ 11,637,334	\$10,887,320	\$ 9.666,570	\$ 9,212,102	\$9,060,487	\$ 7.288.012
Plan Fiduciary Net Postion - Ending (b)	\$14,062,101	\$11,637,334	\$10,887,320	\$ 9,666,570	\$9,212,102	\$ 9,060,487
Net pension liability (asset) - Ending (a-b)	\$ 4,817,755	\$ 1,737,291	\$ 417,221	\$ 278,178	\$ 361,967	\$ (301,310)
Fiduciary net position as a percentage of total pension liability	74.48%	87.01%	96.31%	97.20%	104.09%	103.44%
Covered payroll	\$ 3,065,670	\$ 2,895,457	\$ 2,862,600	\$ 2,372,202	\$ 2,253,365	\$ 2,074,725
Net Pension liability (asset) as a percentage of covered payroll	157.15%	60.00%	14.57%	11.73%	(16.06)%	(14.52)%

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years where information is available.

Required Supplementary Information (continued)

LAGERS STAFF RETIREMENT PLAN (CONTINUED)

	Schedule of Employer Contributions								
Year Ended June 30	Actuarial Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Actual Contribution as a % of Covered Payroll					
2019	\$ 406,991	\$ 2,110,653	\$ (1,703,662)	\$ 3,065,670	68.85%				
2018	304,693	363,705	(59,012)	2,895,457	12.56				
2017	295,261	318,068	(22,807)	2,862,600	11.11				
2016	336,059	371,358	(35,299)	2,372,202	15.65				
2015	351,076	372,741	(21,665)	2,253,365	16.54				
2014	314,407	740,127	(425,720)	2,074,725	35.67				
2013	293,419	342,575	(49,156)	1,837,069	18.65				
2012	348,479	936,857	(588,378)	1,672,378	56.02				
2011	313,225	1,563,687	(1,250,462)	1,453,875	107.55				
2010	201,988	222,160	(20,172)	1,553,466	14.30				

Valuation dateJu	ne 30, 2017
Methods and Assumptions Used to Determine Contribution Rates:	
Actuarial cost methodEntry	Age Normal

Mortality......RP-2014 mortality table for males and females, adjusted for improvement back to the observation period base year of 2006. The base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale.

The mortality table was established based on the experience of the Missouri LAGERS membership total. Based on the experience observed during the most recent 5 year period study.

Other Information

LAGERS STAFF RETIREE HEALTHCARE SUPPLEMENT

Schedule of Changes	Schedule of Changes in Net OPEB Liability					
Fiscal Year Ending June 30		2019	2018		2017	
Total OPEB liability						
Service cost	\$	60,805	\$ 49,231	\$	47,681	
Interest		126,173	113,349		104,515	
Difference between expected						
and actual experience			(104,764)			
Changes of assumptions		617,551	148,738			
Benefit payments		(38,871)	(32,053)		(30,195)	
Net change in total OPEB liability	\$	765,658	\$ 174,501	\$	122,001	
Total OPEB Liability - Beginning	\$	1,729,346	\$ 1,554,845	\$	1,432,844	
Total OPEB Liability - Ending (a)	\$	2,495,004	\$ 1,729,346	\$	1,554,845	
Plan fiduciary net position						
Employer contributions	\$	60,284	\$ 52,560	\$	121,994	
Net investment income		110,950	112,769		183,168	
Benefit payments		(38,871)	(32,053)		(30,195)	
Net change in plan fiduciary net position	\$	132,363	\$ 133,276	\$	274,967	
Plan fiduciary net postion - beginning	\$	1,913,741	\$ 1,780,465	\$	1,505,498	
Plan fiduciary net postion - ending (b)	\$	2,046,104	\$ 1,913,741	\$	1,780,465	
Net OPEB liability (asset) - Ending (a-b)	\$	448,900	\$ (184,395)	\$	(225,620)	
Plan fiduciary net position as a Percentage of total OPEB liability		82.01%	110.66%		114.51%	
Covered payroll	\$	3,065,670	\$ 2,895,457	\$	2,862,600	
Net OPEB liability (asset) as a percentage of covered payroll		14.64%	(6.37)%		(7.88)%	

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years where information is available.

Required Supplementary Information (continued)

LAGERS STAFF RETIREE HEALTHCARE SUPPLEMENT (CONTINUED)

	Schedule of Employer Contributions								
Year Ended June 30	Actuarial Determined Contribution	Actual Contribution							
2019 2018 2017	\$ 45,267 43,842 104,013	\$ 60,284 52,560 121,994	\$ (15,017) (8,718) (17,981)	\$ 3,065,670 2,895,457 2,862,600	1.97% 1.82 4.26				

Valuation dateJune 30, 2016Methods and Assumptions Used to Determine Contribution RatesEntry Age NormalActuarial cost methodEntry Age NormalAmortization method19 yearsAsset valuation methodMarket value of assetsInflation3.25%; including price inflation assumption of 2.5%Salary increases3.25% - 6.55% including inflationRetirement ageExperience-based table of rates that are specific to the type of eligibility conditionLast updated for 2016 valuation pursuant to an experience study of the period
2010 - 2015.MortalityRP-2014 mortality table for males and females, adjusted for improvement back
to the observation period base year of 2006. The base year for males was
then established to be 2017. Mortality rates for a particular calendar year
are determined by applying the MP-2015 mortality improvement scale.

The mortality table was established based on the experience of the Missouri LAGERS membership total. Based on the experience observed during the most recent 5 year period study.

Other Information

Supplementary Information

Operating Expense	ES			
Administrative Expense				
Year Ended June 30, 2019				
Personnel Services:				
Staff salaries	\$	2,305,344		
Social Security		170,135		
Staff retirement plan		2,084,236		
OPEB		42,239		
Insurance		429,414		
Professional development		36,939		
Total Personnel Services			\$	5,068,307
Professional Services:				
Actuarial services	\$	581,664		
Data processing		533,274		
Audit		93,965		
General counsel		90,088		
Legislative		54,000		
Medical advisors		50,906		
Other		45,197	Φ.	4 440 004
Total Professional Services			\$	1,449,094
Communications:				
Public information	\$	61,118		
Printing		64,264		
Telephone		59,748		
Postage		117,342		
Meetings and travel		159,813		400.005
Total Communications			\$	462,285
Miscellaneous:				
Utilities	\$	35,136		
Insurance premiums		93,415		
Equipment maintenance		190,707		
Office supplies		54,948		
Building maintenance		42,907		
Depreciation Total Miscellaneous	_	732,328	φ	1 140 141
			\$	1,149,441
Total Administrative Expenses			\$	8,129,127
Investment Expenses Year Ended June 30, 2019				
Investment Manager Fees:				
Alpha managers	\$	13,294,845		
Equity managers	Ψ	19,779,961		
Fixed income managers		20,245,890		
Real asset managers		50,076,130		
Strategic managers		5,539,258		
Securities lending managers		11,423,223		
Total Investment Manager Fees		11,420,220	\$	120,359,307
Other Investment Expenses:			Ψ	. 20,000,001
Investment custodial services	\$	466,788		
Internal investment expenses	Ψ	1,582,365		
Total Other Investment Expenses		1,002,000	\$	2,049,153
Total Investment Expenses				122,408,460
Total investment Expenses			\$	122,400,400

Notes



Photo Credit: Local Government Hero Nominees

SECTION 3: INVESTMENTS

Chief Investment Officer's Report



MISSOURI LOCAL GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

701 West Main, P.O. Box 1665, Jefferson City, Missouri 65102 Telephone (573) 636-9455 • 800-447-4334 • FAX (573) 636-9671 www.molagers.org Brian K. Collett, CFA, CAIA, Chief Investment Officer

October 14, 2019

To all LAGERS members:

You can have confidence that the risk-aware investment strategy that LAGERS is using will assure that long-term obligations to our members and retirees will be achieved. The fiscal year ending June 30, 2019 was a volatile year for the markets overall. Despite that, the portfolio returned a robust performance of +7.1% net of fees relative to the Total Policy Benchmark return of +7.4%. The performance by the portfolio was broad based, with most categories outperforming its respective benchmark. These returns drove the overall portfolio value to \$8.1 billion, up from \$7.7 billion at the end of last fiscal year. This one-year performance feeds into the portfolio's long term returns below:

- +10.9% net of fees annualized return over three years
- +6.8% net of fees annualized return over five years
- +10.9% net of fees annualized return over ten years
- +7.2% net of fees annualized return over twenty years

These returns were calculated by LAGERS' custodian, Northern Trust.

The portfolio returns exceeded LAGERS' Total Policy Benchmark return over the 3, 5, 10 and 20 year periods and over the long term has outperformed the assumed rate of return over 3 and 10 year periods. This continues to translate into downward pressure on employer contributions and a higher funding status due to the five year asset smoothing policy, creating a more secure retirement for our members.

Over the last year, LAGERS has transitioned to a new levered asset allocation and focuses on utilizing cash efficiently while maintaining the current risk level and gaining diversification and return. The new allocation includes a new category, Alpha, which has been built over the last year. It is comprised of investments that target a beta of zero and protect against systematic risk.

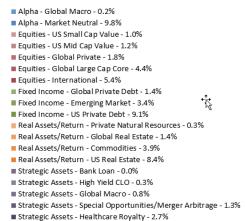
Public equities were hit hard in the fourth quarter of 2018 and strongly bounced back in the first two quarters of 2019. US-China trade disputes, political turmoil in Europe and the Middle East, mixed signals in macro-economic data, and the Fed's pivot to easing policy are some of the big headlines that contributed to last year's volatility. LAGERS' Private Equity managers continued to provide strong returns in equities, as they saw increased valuations for the companies they held, and sold, resulting in +10.6% return for the year. This was largely offset by the Public Equity portfolio which had a large value bias in a growth performing market. The Equity bucket overall returned +4.0% net of fees.

LAGERS' Fixed Income portfolio returned +9.9% net of fees compared to LAGERS' Fixed Income benchmark of +7.4%. Since the Fed's January 2019 meeting, the Fed, for a long time, has started to tone down its rate hike projection and become more dovish in the conditions of the economy. That theme has been carried out in 2019 and resulted in a rate cut for the first time (in July 2019) since the 2008 financial crisis. This put upward pressure on bond prices which further was supported by softer economic data. As a result, the Public Fixed Income allocation returned strongly for the year, returning +10.5% vs 0.1% last year. The primary source of outperformance in fixed income came from US Long Duration, returning 15.5% vs 12.3% benchmark return. Private Fixed Income returned +8.5% net of fees, contributing to the relative outperformance of +2.6% of the bucket as a whole.

LAGERS' Real Assets/Real Return portfolio was a major contributor to performance for the year. The Real Assets/Real Return bucket returned +6.4% net of fees compared to LAGERS' Real Assets/Real Return Benchmark of +3.5%, a relative outperformance of +2.9% for the year. The Private Infrastructure allocation was a major source of outperformance in this bucket, returning +12.6% vs 5.7% benchmark return. The Real Estate allocation also contributed to outperformance, as the value-add strategies succeeded in creating value for the portfolio.

LAGERS' Strategic portfolio returned +9.2% net of fees compared to LAGERS' Strategic Benchmark of +7.3%, an outperformance of +1.9%. The outperformance was attributable to private royalty investments made by the fund, along with investments in private communication and data centers.

The current allocation as of June 30, 2019 for the five main buckets is Alpha 13.5%, Equities 36.2%, Fixed Income 32.0%, Real Assets/Real Return 32.5%, and Strategic Assets 11.0%. However, the LAGERS' team views risk and asset allocation at a much more granular level than just the five main buckets listed above. Below is an in-depth chart, showing all the various sub-categories within the portfolio. These sub-categories provide a better understanding of the risks and characteristics currently in the portfolio.



Diversification as of June 30, 2019



■ Strategic Assets - Energy - 3.2%

Generating LAGERS' assumed rate of return of +7.25% in the current environment will involve implementing our risk-aware strategy. LAGERS' strategy takes full advantage of the illiquid nature of LAGERS' long-term, perpetual, investment portfolio by having the ability to invest in private strategies such as Private Equity, Infrastructure, Real Estate, Aviation, Mining, Shipping and other Natural Resources. These private strategies are expected to earn a premium to the public market returns, while diversifying the portfolio and decreasing overall risk. The asset allocation has been developed for the purpose of meeting this assumed rate of return in all environments, including the current. LAGERS' team is continuously looking for attractive opportunities to diversify the asset base to add to the return and reducing overall risk.

The asset allocation is based on short- and long-term goals, liquidity needs, risks and return characteristics of asset types, costs associated with available assets, and market conditions. Again, you can have confidence that the risk-aware investment strategy that LAGERS continues to use will assure that long-term obligations to our members and retirees will be achieved.

Sincerely,

Brian K. Collett, CFA, CAIA

Chief Investment Officer

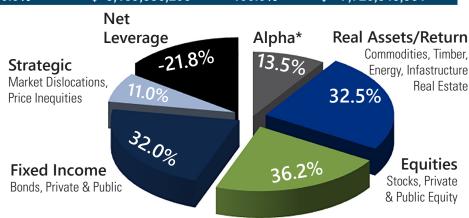
Brian K. Collott

Asset Allocation

	June 30, 2019		June	e 30, 2018
	% of Total		% of Total	
Holdings by Asset Class	Fair Value	Fair Value	Fair Value	Fair Value
Alpha	10.1%	\$ 818,501,871		
Total Alpha	10.1%	\$ 818,501,871		
Equities				
Domestic	9.5%	\$ 771,431,427	17.0%	\$ 1,313,378,521
International	5.4	435,700,095	9.0	694,020,714
Global	4.4	359,528,377		
Emerging Markets	4.7	381,735,318	4.0	311,584,324
Private Equity	12.3	1,002,071,106	9.1	703,912,939
Total Equities	36.2%	\$ 2,950,466,323	39.1%	\$ 3,022,896,498
Fixed Income				
US Fixed Income	4.6%	\$ 375,177,942	4.6%	\$ 358,865,981
Global Fixed Income	3.0	242,202,738	3.8	295,355,128
Long Duration	10.4	850,471,518	2.9	225,367,861
Emerging Markets Debt	3.4	273,239,560	3.9	299,039,388
Private Fixed Income	10.6	861,818,382	11.0	852,888,753
Total Fixed Income	32.0%	\$ 2,602,910,140	26.3%	\$ 2,031,517,111
Real Assets/Return				
Timber	1.3%	\$ 102,811,527	1.4%	\$ 106,917,967
Infrastructure	13.1	1,068,919,508	10.7	826,511,466
Real Estate	9.8	796,616,105	8.3	642,272,835
Commodities	3.9	316,007,534	4.4	338,694,563
Inflation-Linked Bonds	4.2	338,159,855	3.5	273,204,786
Natural Resources	0.3	26,266,811		
Total Real Assets/Return	32.5%	\$ 2,648,781,338	28.3%	\$ 2,187,601,617
Strategic				
Public Strategic	6.3%	\$ 516,495,258	2.6%	\$ 199,752,311
Private Strategic	4.1	330,676,278	3.7	284,778,414
Total Strategic	10.4%	\$ 847,171,536	6.3%	\$ 484,530,725
Net Leverage				
Cash	10.0%	\$ 817,866,066		
Leverage	-31.3	(2,545,811,069)		
Total Net Leverage	-21.2%	\$ (1,727,945,003)		
Total Assets	100.0%	\$ 8,139,886,205	100.0%	\$ 7,726,545,951

ASSET ALLOCATION-ASSET CLASS as of June 30, 2019

*Alpha allocation adjusted by 3.4% to achieve a volatility adjusted risk target of 8%. Strategic and Net Leverage allocation is adjusted for the Net Notional Value.



Investment Policy

The LAGERS Board of Trustees, operating within the "prudent person" framework, has adopted a Statement of Investment Policy and Objectives for the investment managers and others who serve in a fiduciary capacity to the Fund. A summary of that policy follows. For a complete copy of the investment policy, please contact the LAGERS office.

Investment Goals

The goal of the Fund shall be to achieve a rate of return, net of manager fees, of at least 7.25% per annum as measured over a full market cycle. The Trustees and Investment Staff will use the Fund's asset allocation as the primary tool to achieve this goal. As this is a long-term projection and investments are subject to short-term volatility, the main investment focus of the Trustees and Investment Staff will be towards the Total Fund. Each asset manager, individual investment and/or security selection (together known as 'investment(s)') will be judged on performance relative to its asset class and to its relative benchmark over a full market cycle, usually 3-5 years. With respect to the given purpose, the System's liquidity requirement, and the source and predictability of contributions, the Board elects to target portfolio risk of 10% standard deviation in pursuing the investment program. LAGERS is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to finance the pension benefits promised to the System's participants. Thus, LAGERS' actively seeks to lower/ stabilize the cost of funding the System's pension promise by prudently taking on types of risk that best serves the long-run interest of the Fund and, therefore, of the System's participants.

The Trustees have established the following asset-mix guidelines for the Pension Fund:

Asset Class	Target Guidelines
Equity Investments	35.00%
Fixed Income Investments	31.00%
Real Assets/Real Return	36.00%
Strategic Assets	8.00%
Alpha Portfolio**	15.00%
Cash Portfolio*	10.00%
Leverage Portfolio*	-35.00%

^{*} LAGERS targets 30% of the leveraged portfolio to be held in cash.

The Trustees have established the following liquidity guidelines for the Pension Fund:

Liquidity Time Frame	Target Guidelines
Short-term (<1 week)	40.00%
Medium-term (1 week – 1 year)	20.00%
Long-term (> 1 year)	40.00%

The Pension Fund's total return should exceed the total return of an index composed as follows:

10.00%	Russell 3000 Index	14.00%	CPI + 4.5% (Real Estate)
10.00%	CPI + 5.5% (Private Equity)	6.00%	Barclays Capital Global Inflation-Linked
5.00%	MSCI All Country World Index ND (non-hedged)		Bond Index
5.00%	MSCI All Country World Index ex US ND (non-hedged)	5.00%	Bloomberg Commodity Index
5.00%	MSCI Emerging Markets Index ND (non-hedged)	2.00%	CPI + 2.5% (Timber)
7.00%	CPI + 4% (Private Fixed Income)	2.00%	CPI + 5% (Natural Resources)
6.00%	Barclays Capital US Aggregate Bond Index	5.00%	CPI + 6% (Private Strategic)
4.00%	Barclays Capital Global Aggregate Bond Index	3.00%	CPI + 4.5% (Public Strategic Portfolio)
10.00%	Barclays Capital U.S. 20+ Year Treasury Bond Index	15.00%	CPI + 3.5% (Alpha Portfolio)
4.00%	1/3 JP Morgan EMBI Global Div; 1/3 JP Morgan GBI-	10.00%	CPI (Cash Portfolio)
	EM Global Div; 1/3 JP Morgan CEMBI Broad Div	-35.00%	-(CPI + 0.5%) (Leverage Portfolio)
7.00%	CPI + 4% (Infrastructure)		, , , , , , , , , , , , , , , , , , , ,

^{**} Alpha Portfolio allocation is based on a volatility adjusted exposure targeting 8% overall.

Investment Policy (continued)

General Portfolio Guidelines

Diversification

The diversification of securities among sectors and issuers is the responsibility of the investment manager and Investment Staff. The Investment Staff has further diversification responsibility at the asset manager and asset class level and the Trustees have diversification responsibility at the total portfolio level. All investments made shall be subject to the quality and diversification restrictions established by Section 70.745, 70.746, 70.747, 105.687, 105.688, 105.689 and 105.690 of the Revised Statutes of Missouri.

Liquidity

Individual assets and/or investment mandates, excluding leverage and its associated cash collateral, will be grouped into three different liquidity classifications. These classifications are based on the time frame it takes to liquidate the investment at prevailing market prices (i.e. not at a discount) and receive cash back. The classifications include:

- Short-Term: the ability to liquidate the investment and receive cash back in less than one week. These include but are
 not limited to publicly traded assets.
- Medium-Term: the ability to liquidate the investment and receive cash back within one week to one year. These include
 more illiquid assets such as hedge funds and overlay strategies that have a lock-up period and/or periodic redemptions
 (i.e. monthly, quarterly, or annually).
- Long-Term: these assets are the most illiquid and have lock-up periods of greater than 1 year. These assets have increased liquidity risk if sold before lock-up expires.

Illiquid assets carry a theoretical illiquidity premium that is demanded by investors for securities that cannot be easily converted into cash. Therefore, these assets that are more illiquid should earn a higher return. Consistent with LAGERS' liquidity requirements and long-term nature of the fund, LAGERS has established liquidity allocation ranges.

Style Adherence

The most important feature any individual manager brings to a multi-manager portfolio is style adherence. At least quarterly, fundamental portfolio characteristics and style benchmark comparisons will be monitored for adherence to a manager's identified style. The Trustees and Investment Staff recognize that different maturity ranges and sectors within the broad market categories go in and out of favor. Therefore, short-term examination of each investment's performance will review style adherence relative to similar style or duration, peer comparisons, and style benchmarks whilst maintaining a focus on the long-term return objective relative to their respective style benchmark.

Performance Objectives

Primary emphasis is to be placed on relative rates of return. Performance shall be evaluated over a market cycle, usually 3-5 years, the following are the performance expectations for the portfolio:

Fixed Income

The benchmark for the fixed income composite portfolio is composed as follows:

32.00% Barclays Capital U.S. 20+ Year Treasury Bond Index

22.50% CPI + 4% (Private Fixed Income)

19.50% Barclays Capital US Aggregate Bond Index

13.00% Barclays Capital Global Aggregate Bond Index

13.00% 1/3 JP Morgan EMBI Global Div; 1/3 JP Morgan GBI-EM Global Div; 1/3 JP Morgan CEMBI Broad Div

(continued)

Investment Policy

- The total return of the fixed income composite, net of fees, should exceed the total return of the composite benchmark outlined above.
- The total return of each underlying portfolio or mandate in the composite should exceed the total return of an index of similar mandate or style assigned. The Investment Staff will use benchmarks specific to each respective asset or manager's mandate on a quarter-by-quarter basis to monitor each investment. Currency management is at the discretion of the Non-US managers.
- The goal of the fixed income composite portfolio shall be to achieve a total annualized real rate of return net of fees of at least 1.5% over the CPI as measured over a market cycle, usually 3-5 years.

Equity

• The benchmark for the equity composite portfolio is composed as follows:

```
29.00% Russell 3000 Index
29.00% CPI + 5.5% (Private Equity)
14.00% MSCI All Country World Index ND (non-hedged)
14.00% MSCI All Country World Index ex US ND (non-hedged)
14.00% MSCI Emerging Markets Index ND (non-hedged)
```

- The total return of the equity composite, net of fees, should exceed the total return of the composite benchmark outlined above.
- The total return of each underlying portfolio or mandate in the composite should exceed the total return of an index of similar mandate or style assigned. The Investment Staff will use benchmarks specific to each respective asset or manager's mandate on a quarter-by-quarter basis to monitor each investment. Currency management is at the discretion of the Non-US managers.
- The goal of the equity composite portfolio shall be to achieve a total annualized real rate of return net of fees of at least 5.0% over the CPI as measured over a market cycle, usually 3-5 years.

Real Assets

• The benchmark for the real asset composite portfolio is composed as follows:

```
19.50% CPI + 4% (Infrastructure)
39.00% CPI + 4.5% (Real Estate)
16.50% Barclays Capital Global Inflation-Linked Bond Index
14.00% Bloomberg Commodity Index
5.50% CPI + 2.5% (Timber)
5.50% CPI + 5% (Natural Resources)
```

- The total return of the real asset composite, net of fees, should exceed the total return of the composite benchmark outlined above.
- The total return of each underlying portfolio or mandate in the composite should exceed the total return of an index of similar mandate or style assigned. The Investment Staff will use benchmarks specific to each respective asset or manager's mandate on a quarter-by-quarter basis to monitor each investment. Currency management is at the discretion of the Non-US managers.
- The goal of the real asset composite portfolio shall be to achieve a total annualized real rate of return of at least 3.5% over the CPI as measured over a market cycle, usually 3-5 years.

Investment Policy (continued)

Strategic Assets

The benchmark for the strategic asset composite portfolio is composed as follows:

62.50% CPI + 6.0% (Private Strategic) 37.50% CPI + 4.5% (Public Strategic Portfolio)

- The total return of the strategic asset composite, net of fees, should exceed the total return of the composite benchmark outlined above.
- The total return of each underlying portfolio or mandate in the composite should exceed the total return of an index of similar mandate or style assigned. The Investment Staff will use benchmarks specific to each respective asset or manager's mandate on a quarter-by-quarter basis to monitor each investment. Currency management is at the discretion of the Non-US managers.
- The goal of the strategic asset composite portfolio shall be to achieve a total annualized real rate of return of at least 5.5% over the CPI as measured over a market cycle, usually 3-5 years.

Alpha Portfolio

- The benchmark for the alpha composite is CPI+3.5%.
- The total return of the alpha composite, net of fees, should exceed the total return of the composite benchmark outlined above.
- The total return of each underlying portfolio or mandate in the composite should exceed the total return of an index of similar mandate or style assigned. The Investment Staff will use benchmarks specific to each respective asset or manager's mandate on a quarter-by-quarter basis to monitor each investment. Currency management is at the discretion of the Non-US managers.
- The goal of the asset composite shall be to achieve a total annualized real rate of return of at least 5% over the CPI as measured over a market cycle, usually 3-5 years.

Cash

- LAGERS tracks the cash on the overall portfolio and has a target cash position of 30% of leverage employed.
- The benchmark for the cash composite is CPI.
- The goal of the cash composite portfolio shall be to achieve a total annualized real rate of return of CPI as measured over a market cycle, usually 3-5 years.

Leverage Portfolio

• The leverage composite is the liability side of any borrowed funds and therefore will not have a benchmark to exceed and will instead have an expected cost of CPI +0.5%, measured over a market cycle, usually 3-5 years.

Securities Lending Guidelines

The Investment Staff may select a firm(s) to lend financial securities of the Fund. The firm shall have full discretion over the selection of borrowers and shall continually review credit worthiness of potential borrowers through adequate analysis of all material provided to them. The securities lending program shall in no way inhibit the trading activities of the investment managers of the System. The securities lending agent and Investment Staff will create investment guidelines for the investment of cash collateral to adhere to this document. The Investment Staff will review, at least quarterly, the performance of the program and ensure that proper collateralization procedures are adhered to as stated in the investment guidelines.

The Investment Staff has authority to manage the Security Lending's cash collateral. This collateral will be invested at Staff's discretion in the eligible investments permitted under this Statement of Investment Policy and Objectives, while also taking into the account the liquidity needs of the Security Lending program.

Investment Results

Periods Ending June 30, 2019								
Total Portfolio:	1 Year	3 Years	5 Years	10 Years	15 Years			
LAGERS	7.12%	10.92%	6.83%	10.85%	8.05%			
LAGERS Custom Index	7.44	7.96	5.52	8.32	6.35			
Actuarial Assumed Rate of Return	7.25	7.25	7.25	7.30	7.37			
Median All Funds > \$1 Bil	6.49	9.05	6.27	9.84	8.69			
Consumer Price Index (CPI)	1.65	2.05	1.45	1.73	2.02			
Equity Portfolio:								
LAGERS	3.99%	12.65%	7.81%	12.95%	7.74%			
MSCI's All Country World Index	5.74	11.62	6.16	10.15	7.03			
Russell 3000 Index	8.98	14.02	10.19	14.67	8.88			
Standard & Poor's 500 Index	10.42	14.19	10.71	14.70	8.75			
Fixed Income Portfolio:								
LAGERS	9.94%	7.12%	5.84%	8.90%	7.83%			
Barclay's US Aggregate Index	7.87	2.31	2.95	3.90	4.27			
Barclay's Global Aggregate Index	5.85	1.62	1.20	2.89	3.76			
Real Assets/Return Portfolio:								
LAGERS	6.43%	9.82%	5.57%	6.88%	5.88%			
LAGERS Custom Real Assets/Return Benchmark	3.49	4.31	2.74	4.17	4.70			
Strategic Portfolio:								
LAGERS	9.22%	11.47%	4.34%	7.81%				
LAGERS Custom Strategic Benchmark 7.28 7.70 6.91 6.97								
Note: Performance calculations were prepared us	Note: Performance calculations were prepared using time-weighted rates of return							

Largest Holdings

	Largest Bond Holdings (By Fair Value) June 30, 2019							
	Par	Bonds	Fair Value					
1)	\$ 114,060,000	US Treas Bonds Dtd 05/15/2016 2.5% Due 05-15-2046 Reg	\$113,400,619					
2)	100,175,000	US Treas Bds 2.25% Due 08-15-2046	94,641,934					
3)	63,240,000	FNMA Single Family Mortgage 3.5% 30 Years Settles August	64,642,284					
4)	54,150,000	US Treas Nts Infl Idx 0.625% 04-15-2023	56,366,158					
5)	55,700,000	US Treas Bds 00247 2.5% Due 02-15-2046 Reg	55,408,466					
6)	46,880,000	US Treas Notes Infl Idx 0.125% 04-15-2021	50,077,494					
7)	98,500,000	US Treas Bd Stripped Prin Pmt00109 11-15-2045 (Unddate) Reg	49,946,494					
8)	47,620,000	US Treas NTS ldx Dtd 04-15-2017 0.125% Due 04-15-2022	49,646,162					
9)	41,995,000	US Treas Bds Dtd 00246 3% Due 11-15-2045 Reg	45,958,278					
10)	42,000,000	US Treas Notes 0.125% Infl Idx 04-15-2020	45,351,280					

	Largest Stock Holdings (By Fair Value) June 30, 2019						
	Shares	Stock	Fair Value				
1)	8,462,324	MFO DFA Dimensions Group Inc Emerging Mrkts Small Cap	\$173,562,258				
2)	10,000	PVPL Eagle Holding Company Inc Series B	12,351,000				
3)	4,834	Amazon Inc	9,153,807				
4)	500	PVPL TWL Holdings Corp Series A	8,605,035				
5)	31,387	Mastercard Inc	8,302,803				
6)	6,500	PVPL Hastings Holding Corp Series C	8,041,020				
7)	38,034	Facebook Inc	7,340,562				
8)	45,642	Johnson & Johnson	6,357,018				
9)	52,994	Liberty Broadband Corp Series C	6,356,795				
10)	73,669	Nike Inc	6,184,513				

Note: A complete list of holdings is available upon request.

Schedule of Advisor Fees

Investment Manager Expenses:		
Alpha Managers	\$ 13,294,845	
Equity Managers	19,779,961	
Fixed Income Managers	20,245,890	
Real Asset Managers	50,076,130	
Strategic Managers	5,539,258	
Securities Lending Managers	11,423,223	
Total Investment Manager Fees		\$ 120,359,307
Other Investment Expenses:		
Investment Custodial Services	\$ 466,788	
Investment Staff Expenses	1,582,365	
Total Other Investment Expenses		\$ 2,049,153
Total Investment Expenses		\$ 122,408,460

Schedule of Advisors

ALPHA

AQR Capital Management, Greenwich, CT Bridgewater Associates, Westport, CT BlackRock, San Francisco, CA Wellington Management Company, Boston, MA Winton Capital, London, England

EQUITY

Alchemy Partners, London, England
AMI Asset Management Corporation, Los Angeles, CA
Aronson Johnson Ortiz, Philadelphia, PA
Brentwood Associates, Los Angeles, CA
Bridgewater Associates, Westport, CT
Catterton Partners, Greenwich, CT
Clearbridge Investments, Wilmington, DE
Dimensional Fund Advisors, Austin, TX
Federated MDT Advisors, Boston, MA
FSN Capital Partners, Oslo, Norway
Jennison Associates, New York, NY

PanAgora Asset Management, Boston, MA
Portfolio Advisors, Darien, CT
RFE Investment Partners, New Canaan, CT
The Riverside Company, New York, NY
Seizert Capital Partners, Birmingham, MI
Silvercrest Asset Management Group, New York, NY
Steadfast Capital, Frankfurt, Hesse
Systematic Financial Management, Teaneck, NJ
Tailwind Capital, New York, NY
Wellington Management Company, Boston, MA
Winton Capital, London, England

FIXED INCOME

AQR Capital Management, Greenwich, CT Alchemy Partners, London, England BlackRock, San Francisco, CA Eagle Private Capital, St. Louis, MO EIG Global Energy Partners, Washington D.C. Fireside Financial, Edwardsville, IL Garrison Investment Group, New York, NY Global Infrastructure Partners, New York, NY

Pamlico Capital, Charlotte, NC

Hoisington Investment Management, Austin, TX
Pacific Investment Management Co., Newport Beach, CA
Portfolio Advisors, Darien, CT
Pyramis Global Advisors, Smithfield, RI
RFE Investment Partners, New Canaan, CT
Sound Mark Partners, Greenwich, CT
Stone Harbor, New York, New York

Schedule of Advisors

REAL ASSETS / RETURN

Avenue Capital Group, New York, NY
BlackRock, San Francisco, CA
Blue Vista Capital Management, Chicago, IL
Bridgewater Associates, Westport, CT
CBRE Capital Partners, New York, NY
CBRE Investors, Los Angeles, CA
Crow Holdings, Dallas, TX
EIG Global Energy Partners, Washington D.C.
Europa Capital Partners, London, England
Fireside Financial, Edwardsville, IL
Garrison Investment Group, New York, NY

Invesco Capital Management, Atlanta, GA
I Squared Capital Advisors LLC, New York, NY
Noble Investment Group, Atlanta, GA
Pacific Investment Management Co., Newport Beach, CA
Portfolio Advisors, Darien, CT
Prudential Real Estate Investors, Madison, NJ
Resource Capital Funds, Denver, CO
Related Fund Management, New York, NY
Sole Shipping, St Helier, Jersey
Sound Mark Partners, Greenwich, CT
Stonepeak, Wilmington, DE
Timberland Investment Resources, Charlotte, NC

STRATEGIC

Allegro, Wilmington, DE
Avenue Capital Group, New York, NY
BlackRock, San Francisco, CA
Bridgewater Associates, Westport, CT
Dock Square Capital, Coral Gables, FL

Glennmont Partners, London, England

Global Infrastructure Partners, New York, NY

Garrison Investment Group, New York, NY Healthcare Royalty Partners, Stamford, CT Russell, Seattle, WA Sound Mark Partners, Greenwich, CT Waddell & Reed, Overland Park, KS

CUSTODIAN

Northern Trust Company, Chicago, IL

Brokerage Schedule

Schedule of Brokerage Commissions							
Broker Name	Shares	Commissions	Per Share				
Goldman, Sachs and Co.	1,302,624,689	\$ 216,716	0.00017				
Morgan Stanley and Co., LLC	6,188,975,968	176,321	0.00003				
Sanford C. Bernstein and Co., LLC	92,491,763	136,903	0.00148				
Jefferies LLC	123,896,754	93,622	0.00076				
Deutsche Bank Securities Inc.	292,650,270	84,947	0.00029				
Investment Technology Group Inc.	10,699,151	80,253	0.00750				
Merrill Lynch International Limited	252,039,435	72,447	0.00029				
J.P. Morgan Securities LLC	1,034,893,226	67,616	0.00007				
Credit Suisse Ag, New York Branch	1,373,508,537	66,442	0.00005				
Barclays Capital	73,923,513	64,928	0.00088				
J.P. Morgan Securities Plc	609,722,477	50,533	0.00008				
Instinet Europe Limited	89,542,657	46,278	0.00052				
SG Securities (HK) Limited	143,617,204	44,137	0.00031				
Instinet, LLC	4,279,002	43,377	0.01014				
Instinet Pacific Limited	165,050,551	42,187	0.00026				
Citigroup Global Markets Limited	31,525,397	40,729	0.00129				
ITG Inc.	1,879,179	34,723	0.01848				
Credit Suisse Securities (USA) LLC	26,139,817,966	31,519	0.00000				
Capital Institutional Services Inc-Equities	1,628,210	30,226	0.01856				
Investment Technology Group Ltd.	2,955,847	24,758	0.00838				
Subtotal (20 largest)	37,935,721,796	1,448,662	0.00348				
Remaining total	286,580,621,310	\$ 621,466	0.00660				
Total commissions	324,516,343,106	\$ 2,070,128	0.00642				

Note: Brokerage commissions on purchases and sales are too numerous to list; therefore, only the top 20 brokers, by amount of commission paid are presented.



Photo Credit: City of Sikeston

SECTION 4: ACTUARIAL

Actuary's Certification Letter



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October 12, 2018

The Board of Trustees Missouri Local Government Employees Retirement System Jefferson City, Missouri 65102

The fundamental financial objective of LAGERS is to establish and receive contributions which:

- when expressed as percents of active member payroll, will remain approximately level from generation to generation of local citizens, and
- when combined with present assets and future investment return, will be sufficient to meet the financial obligations of LAGERS to present and future retirees and beneficiaries.

To test how well the fundamental objective is being achieved, annual actuarial valuations are made. These valuations adjust employer contribution rates, up or down as the case may be, for differences in the past year between assumed financial experiences and actual financial experiences. In addition, these valuations determine the reserve strength of each employer group.

Using data as of February 28, 2018, separate actuarial valuations were made for 1,116 employer groups and a compiled annual actuarial report was issued as of that date. The data was reviewed in the aggregate by the actuary for internal and year-to-year consistency and reasonableness prior to use in the actuarial valuation process, but was not audited. It was also summarized and tabulated in order to analyze trends. We are not responsible for the accuracy or completeness of the data. Summary information about the resulting new employer contribution rates is shown in the Comprehensive Annual Financial Report (CAFR).

Assumptions concerning future experience are needed for computing employer contribution rates. As time passes and actual experience develops, assumed and actual experience is compared. From time-to-time, one or more of the assumptions about the future are changed by the Board after consulting with the actuary. The last major changes were in economic assumptions and non-economic assumptions based upon an Experience Study covering the period March 1, 2010 through February 28, 2015. These assumptions were first used in the 2016 valuations. The assumptions comply with the Actuarial Standards of Practice and the applicable reporting requirements of the Governmental Accounting Standards Board (GASB).

In addition to the compiled annual actuarial valuation report, separate reports are issued to provide funding and financial reporting information for the LAGERS Staff Plan in accordance with GASB Statement Nos. 67 and 68 (pension benefits) and Statement Nos. 74 and 75 (retiree health benefits). Financial reporting information has been produced based upon a measurement date of June 30, 2018 for GASB Statement Nos. 67 and 68 and June 30, 2018 for GASB Statement Nos. 74 and 75.

The following schedules in the Actuarial Section and Financial Section of the CAFR were prepared based upon certain information presented in the previously mentioned funding and financial reporting valuation reports:

Actuarial Section

Summary of Actuarial Assumptions

Actuarial Valuation Data

Participating Employers and Active Members

Retirant and Beneficiary Data

Short Condition Test

Employer Contribution Rate Changes

Employer Contribution Rates

Schedule of Gains & Losses

Financial Section

LAGERS Schedule of Funding Progress

LAGERS Staff Retirement Plan

Contributions

Total and Net Pension Liability

Sensitivity to Changes in the Discount Rate

Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions

Schedule of Changes in Net Pension Liability

Schedule of Employer Contributions

LAGERS Staff Postemployment Healthcare Supplement

Contributions

Total and Net OPEB Liability

Sensitivity to Changes in the Discount Rate and Healthcare Trend Rates

OPEB Expense and Deferred Outflows/Inflows of Resources Related to OPEBs

Schedule of Changes in Net OPEB Liability

Schedule of Employer Contributions

On the basis of the 2018 valuations, it is our opinion that LAGERS continues to satisfy the actuarial principles of level cost financing.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; 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 funded status); and changes in plan provisions or applicable law.

Mita D. Drazilov and Judith A. Kermans are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

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Respectfully submitted,

Mita D. Drazilov. ASA. MAAA

Mita Drazilov

Judith A. Kermans, EA, MAAA

Summary of Actuarial Assumptions

- 1. The investment return rate used in making the valuations was 7.25 percent per year, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the portion of total investment return which is more than the wage inflation rate. Considering wage inflation recognition of 3.25 percent, the 7.25 percent investment return rate translates to an assumed real rate of return of 4.00 percent. Adopted 2016.
- 2. The mortality table used to evaluate mortality among active members was the RP-2014 Employees Mortality Table for males and females, adjusted for mortality improvement back to observation period base year 2006. It was assumed that 50 percent of pre-retirement deaths would be duty related. Adopted 2016.
- 3. The mortality table used in evaluating allowances to be paid was the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to observation period base year of 2006. Adopted 2016.
- 4. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.
- 5. The probabilities of withdrawal from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.
- 6. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.
- 7. Total active member payroll is assumed to increase 3.25 percent a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2016.
- 8. An individual entry-age normal cost method of valuation was used in determining age and service allowance normal costs and the allocation of actuarial present values between service rendered before and after the valuation date. Actuarial gains and losses reduce or increase the unfunded liability and are amortized over the remaining amortization period. Adopted 1987.
- Present assets (cash and investments at February 29, 2016) are valued using smoothing techniques of fair value over a five-year period. Funding value is not permitted to deviate from fair value by more than 20 percent. Adopted 2003.
- 10. 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.
- 11. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

Schedule 1

Withdrawal From Active Employment Before Age & Service Retirement and Individual Pay Increase Assumptions

Percent of Active Members Separating Within Next Year

						Percent Increase In Individual's
Sample Ages	Years of Service	General Men	Members Women	Police	Fire	Pay During Next Year#*
						Next rear
All	0	19.0%	22.0%	18.0%	10.0%	
	1	17.0	20.0	17.0	8.0	
	2	15.0	17.0	16.0	7.0	
	3	13.0	14.0	13.0	6.0	
	4	11.0	13.0	12.0	6.0	
25	5 & Over	7.3	10.8	9.8	5.0	6.55%
30		6.5	8.9	7.8	4.0	5.75
35		5.0	7.4	6.1	2.8	5.25
40		3.7	5.7	4.4	2.2	4.75
45		3.0	4.2	3.2	1.8	4.25
50		2.4	3.3	1.8	1.0	3.85
55		1.8	2.5	1.0	0.5	3.65
60		1.0	1.2	0.0	0.0	3.55
65		0.0	0.0	0.0	0.0	3.25

^{*}Pay increase rates for fire employees differ slightly.

Withdrawal From Active Employment Before Age & Service Retirement due to Death or Disability

			Death*		Disability			
Sample Ages	General Men	Members Women	Police	Fire	General Men	Members Women	Police	Fire
25 30 35 40 45 50 55 60 65	0.05% 0.04 0.05 0.07 0.12 0.19 0.29 0.49 0.93	0.01% 0.02 0.03 0.04 0.06 0.10 0.17 0.24 0.35	0.05% 0.04 0.05 0.07 0.12 0.19 0.29	0.05% 0.04 0.05 0.07 0.12 0.19 0.29	0.09% 0.12 0.15 0.21 0.30 0.44 0.68 1.02	0.02% 0.03 0.06 0.10 0.16 0.24 0.34 0.48	0.10% 0.11 0.16 0.22 0.34 0.53 0.88	0.06% 0.10 0.23 0.35 0.56 0.85 1.31

^{*}Applicable to calendar year 2019. Rate in future years are determined by the above rates and the MP-2015 scale.

^{*}Individual pay increase rates relate to all years of service.

Summary of Actuarial Assumptions (continued)

Schedule 2
Percent of Eligible Active Members Retiring Within Next Year
Without Rule of 80 Eligibility

Retirement Ages	Genera Men*	al Members Women*	Retirement Ages	Police*	Fire*
55	3.0%	3.0%	50	2.5%	2.5%
56	3.0	3.0	51	2.5	2.5
57	3.0	3.0	52	2.5	2.5
58	3.0	3.0	53	2.5	2.5
59	3.0	3.0	54	2.5	2.5
60	10.0	10.0	55	10.0	13.0
61	10.0	10.0	56	10.0	13.0
62	25.0	15.0	57	10.0	13.0
63	20.0	15.0	58	10.0	13.0
64	20.0	15.0	59	10.0	13.0
65	25.0	25.0	60	10.0	15.0
66	25.0	25.0	61	10.0	15.0
67	20.0	25.0	62	25.0	20.0
68	20.0	25.0	63	20.0	20.0
69	20.0	20.0	64	20.0	20.0
70	100.0	100.0	65	100.0	100.0

Percent of Eligible Active Members Retiring Within Next Year With Rule of 80 Eligibility

Retirement Ages	Men	Women	Police	Fire
50	15.0%	15.0%	25.0%	25.0%
51	15.0	15.0	25.0	20.0
52	15.0	15.0	15.0	20.0
53	15.0	15.0	15.0	20.0
54	15.0	15.0	15.0	20.0
55	15.0	15.0	15.0	20.0
56	15.0	15.0	15.0	20.0
57	15.0	15.0	15.0	25.0
58	15.0	15.0	15.0	25.0
59	15.0	15.0	15.0	25.0
60	15.0	15.0	15.0	35.0
61	15.0	15.0	25.0	35.0
62	30.0	15.0	30.0	45.0
63	30.0	15.0	30.0	45.0
64	30.0	20.0	30.0	45.0
65	30.0	25.0	100.0	100.0
66	30.0	25.0		
67	30.0	25.0		
68	30.0	25.0		
69	30.0	25.0		
70	100.0	100.0		

*First 5 years of retirement only apply to early retirement.

Actuarial Valuation Data

Participating Employers and Active Members								
Valuation Date	Numb Participating Employers		Active Membe Annual Number Payroll		ers Average % Pay Increase		Inflation Increase % (CPI)	
2-28-19	730	1,141	34,523	\$1,682,772,357	\$ 48,744	2.7%	1.5%	
2-28-18	704	1,116	34,053	1,616,895,524	47,482	2.7	2.2	
2-28-17	681	1,078	33,633	1,555,729,666	46,256	2.3	2.7	
2-29-16	667	1,067	33,335	1,507,588,470	45,225	2.4	1.0	
2-28-15	663	1,062	33,104	1,462,218,216	44,170	0.7	0.0	
2-28-14	654	1,055	33,205	1,456,008,487	43,849	3.2	1.1	
2-28-13	640	1,031	32,840	1,395,261,077	42,487	2.2	2.0	
2-29-12	618	1,007	32,690	1,359,655,784	41,592	1.2	2.9	
2-28-11	608	995	32,851	1,350,646,560	41,114	1.8	2.1	
2-28-10	597	971	32,975	1,331,226,335	40,371	1.4	2.1	

Retirant and Beneficiary Data								
Year Ended	Add No.	ed to Rolls Annual Allowances*		oved from Rolls Annual Allowances	Rolls No.	s End of Year Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
2-28-19	1,909	\$ 33,269,236	691	\$ 7,232,130	24,136	\$ 299,644,108	9.5%	\$ 12,415
2-28-18	1,898	30,005,238	760	7,909,356	22,918	273,607,002	8.8	11,939
2-28-17	1,817	24,889,736	686	6,826,899	21,780	251,511,120	7.7	11,548
2-29-16	1,715	21,160,239	634	6,604,522	20,649	233,448,283	6.6	11,306
2-28-15	1,698	25,056,006	632	5,764,961	19,568	218,892,566	9.7	11,186
2-28-14	1,586	20,455,414	587	5,265,017	18,502	199,601,520	8.2	10,788
2-28-13	1,524	20,204,275	504	4,963,681	17,503	184,411,123	9.0	10,536
2-29-12	1,519	22,768,228	528	4,421,797	16,483	169,170,529	12.2	10,263
2-28-11	1,399	16,372,009	529	4,939,905	15,492	150,824,098	8.2	9,736
2-28-10	1,197	12,647,092	481	4,595,332	14,622	139,391,994	6.1	9,533
*Includes post-retirement adjustments.								

Each employer participating in the system is financially responsible for its own liabilities. Accordingly, the aggregate numbers presented on this and the following page are indicative only of the overall condition of the system and are not indicative of the status of any one employer.

Actuarial Valuation Data

(continued)

SHORT CONDITION TEST

The LAGERS funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the system are level in concept and soundly executed, the system will pay all promised benefits when due — the ultimate test of financial soundness. Testing for level contribution rates is the long-term test.

A short condition test is one means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with actuarial accrued liabilities for: (1) active member contributions on deposit; (2) future benefits to present retired lives; (3) service already rendered by active members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit and the future benefits to present retired lives will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members will be at least partially covered by the remainder of present assets. The larger the funded portion of liability (3), the stronger the condition of the system.

The schedule below illustrates the most recent 10 year history of the system's actuarial accrued liabilities and is indicative of the LAGERS policy of following the discipline of level percent of payroll financing.

	Entry	Age Accrued Liabi					
Valuation	(1) Active Member	(2) Retirants and	(3) Active Members (Employer Financed	Portion of Actuarial Value	Accrued Liability Covered by Assets		
Date	Contributions	Beneficiaries*	Portion)	of Assets	(1)	(2)	(3)
2-28-19	\$ 162,317,487	\$ 3,840,475,375	\$ 4,110,307,786	\$ 7,698,244,648	100	100	90
2-28-18	150,947,222	3,548,016,100	3,932,739,323	7,297,699,793	100	100	92
2-28-17	144,754,979	3,195,680,396	3,795,514,878	6,764,626,389	100	100	90
2-29-16	137,652,896	2,896,669,106	3,637,030,335	6,320,171,438	100	100	90
2-28-15	133,985,740	2,797,401,342	3,392,722,109	5,972,471,342	100	100	90
2-28-14	129,399,490	2,401,194,322	3,343,317,147	5,388,198,677	100	100	85
2-28-13	107,120,593	2,132,575,405	3,183,988,245	4,692,218,862	100	100	77
2-29-12	102,637,353	1,954,579,782	3,063,057,063	4,274,440,345	100	100	72
2-28-11	98,127,911	1,737,107,211	3,002,188,189	3,945,085,880	100	100	70
2-28-10	92,054,693	1,562,886,567	2,777,390,626	3,592,225,739	100	100	70
*Includes reserve for future benefit increases.							

EMPLOYER CONTRIBUTION RATE CHANGES

Annual actuarial valuations are conducted by the system to determine employer contribution rates for the ensuing fiscal year of the employer. As of February 28, 2019, there were 1,141 separate contribution rates determined for the 730 participating political subdivisions in the system. Of these new employer contribution rates, 651 were increases over the previous year and 385 were decreases from the previous year's rate. A 10 year comparative schedule of contribution rate adjustments is shown below:

Valuation				
Date	Decreases	Increases	Unchanged	Total*
2-28-19	385	651	105	1,141
2-28-18	494	487	135	1,116
2-28-17	397	576	105	1,078
2-29-16	255	759	53	1,067
2-28-15	738	244	80	1,062
2-28-14	772	231	52	1,055
2-28-13	595	359	77	1,031
2-29-12	507	439	61	1,007
2-28-11	230	724	41	995
2-28-10	201	707	63	971

*There are 60 groups presently without active members for which dollar contribution rates were computed. They are not included in the totals.

Employer Contribution Rates

Life Benefit Programs												
				Numl	per of Valu	ation Grou	ps					
		Contribut	ory Grou	ps	N	on-Contrib	utory Gro	ups				
	Under 2.00%	2.00- 4.99%	5.00- 7.99%	Over 8.00%	Under 2.00%	2.00- 4.99%	5.00- 7.99%	Over 8.00%	Totals*			
Benefit Program L-1 General Police Fire	11 5 0	24 11 3	24 11 2	32 2 5	7 3 0	11 3 0	16 8 1	14 2 1	139 45 12			
Total:	16	38	37	39	10	14	25	17	196			
Benefit Program L-3 General Police Fire	11 3 0	7 6 2	17 2 2	19 3 1	10 5 1	10 6 1	14 9 1	22 7 5	110 41 13			
Total:	14	15	21	23	16	17	24	34	164			
Benefit Program L-6 General Police Fire	0 3 2	1 3 0	6 5 0	49 19 13	3 1 0	1 2 0	3 5 0	92 39 17	155 77 32			
Total:	5	4	11	81	4	3	8	148	264			
Benefit Program L-7 General Police Fire	5 5 0	8 6 1	25 9 2	25 9 6	6 6 2	17 9 2	33 19 3	59 15 5	178 78 21			
Total:	10	15	36	40	14	28	55	79	277			
Benefit Program L-9 General Police Fire	1 0 0	2 1 0	0 0 0	3 0 0	3 1 0	1 0 0	1 3 0	5 2 0	16 7 0			
Total:	1	3	0	3	4	1	4	7	23			
Benefit Program L-11 General Police Fire	0 0 0	0 0 0	0 0 0	1 3 3	0 0 0	0 0 0	0 0 0	3 1 4	4 4 7			
Total:	0	0	0	7	0	0	0	8	15			
Benefit Program L-12 General Police Fire	0 0	0 0 0	3 1 0	8 3 1	2 2 4	7 2 1	6 8 0	26 9 6	52 25 12			
Total:	0	0	4	12	8	10	14	41	89			
Totals*	46	75	109	205	56	73	130	334	1,028			

^{*}There are 29 contributory groups and 31 non-contributory groups without active members for which dollar contribution rates were computed. They are not included in the totals.

Employer Contribution Rates (continued)

Life and Temporary Benefit Programs												
			N	umber of V	aluation Grou	ps						
		Contr	ibutory G	roups	Non-	Contribut	ory Grou	os				
	Under 2.00%	2.00- 4.99%	5.00- 7.99%	Over 8.00%	Under 2.00%	2.00- 4.99%	5.00- 7.99%	Over 8.00%	Totals*			
Benefit Program LT-4(65)												
General	1	1	2	1	0	0	0	1	6			
Police	0	0	0	0	0	0	1	0	1			
Fire	0	0	0	0	0	0	0	0	0			
Total:	1	1	2	1	0	0	1	1	7			
Benefit Program LT-5(62)				_								
General	0	0	0	0	1	0	0	0	1			
Police	0	0	0	0	0	0	0	0	0			
Fire	0	0	0	0	0	0	0	0	0			
Total:	0	0	0	0	1	0	0	0	1			
Benefit Program LT-5(65)		0	0	0		0	4	4	_			
General	0	0	0	0	0	3	1	1	5			
Police	0	0	0	0	1	0	2	1	4			
Fire	0	0	0	0	1	1	0	0	2			
Total:	0	0	0	0	2	4	3	2	11			
Benefit Program LT-8(62)		_		_					_			
General	1	0	0	0	1	0	1	0	3			
Police	0	0	0	0	0	0	0	1	1			
Fire	0	0	0	0	0	0	0	1	1			
Total:	1	0	0	0	1	0	1	2	5			
Benefit Program LT-8(65)												
General	1	0	2	3	1	3	11	6	27			
Police	0	2	1	0	1	2	3	9	18			
Fire	0	0	1	0	3	1	1	5	11			
Total:	1	2	4	3	5	6	15	20	56			
Benefit Program LT-10(65)												
General	0	0	0	2	1	1	1	6	11			
Police	0	0	0	0	1	0	1	1	3			
Fire	0	0	0	0	1	0	0	0	1			
Total:	0	0	0	2	3	1	2	7	15			
Benefit Program LT-14(65)												
General	0	0	0	1	0	1	2	6	10			
Police	0	0	0	0	1	0	1	3	5			
Fire	0	0	0	0	0	0	0	3	3			
Total:	0	0	0	1	1	1	3	12	18			
Totals*	3	3	6	7	13	12	25	44	113			

^{*}There are 29 contributory groups and 31 non-contributory groups without active members for which dollar contribution rates were computed. They are not included in the totals.

Schedule of Gains & Losses

in Accrued Liabilities for the Year Ended February 28, 2019

Type of Activity	Gain or (Loss) For Year Ended 2/28/2019	% of Liability
Age & Service Retirements. If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss.	\$ (8,853,311)	(0.12)%
Death-in-Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	612,163	0.01
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	4,487,005	0.06
Disability Benefits. If more liabilites are released by disabilities than assumed, there is a gain. If smaller, a loss.	809,735	0.01
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(14,267,714)	(0.19)
Investment Income. If there is greater investment return on assets than assumed, there is a gain. If less return, a loss.	(37,842,494)	(0.50)
New Active Members. Includes the hiring of existing LAGERS members by other employers.	(10,793,219)	(0.14)
Benefit Reserve Fund. Release of reserve for future experience and other retiree experience on system-wide UAAL.	18,449,684	0.24
Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.	(11,878,765)	(0.16)
Gain or (Loss) During Year From Experience	\$ (59,276,916)	(0.78)%

Summary of Plan Provisions

Purpose

The Missouri Local Government Employees Retirement System (LAGERS) is a body corporate created and governed by the State of Missouri to provide retirement, survivors and disability benefits to the state's local government employees in the most efficient and economical manner possible. As such, LAGERS is a non-profit entity which has the responsibility of administering the law in accordance with the expressed intent of the General Assembly and bears a fiduciary obligation to the State of Missouri, the taxpayers and the public employees who are its beneficiaries.

This summary of LAGERS plan provisions is included for informational purposes only. System eligibility requirements and benefits provisions are determined pursuant to Chapter 70, RSMo. and LAGERS Administrative Rules, 16 CSR 20. Accordingly, members, retirees, beneficiaries, and participating political subdivisions are urged to contact LAGERS before making any decisions related to matters included in the following summary.

Administration

The statutes provide that the administration of LAGERS be vested in a seven member Board of Trustees. Three of these trustees are "Member Trustees" who must be participating members of the system. Three members of the Board are "Employer Trustees" who must be members of the governing body of a member subdivision, but who do not personally participate in LAGERS. The statutes which govern LAGERS require that an Annual Meeting be held in the last calendar quarter of each year. Each participating political subdivision is to conduct a secret ballot election allowing each member in that subdivision to vote to elect a "member" delegate to the Annual Meeting. The governing body may then select one of their own, or another person acting in their behalf, to serve as "employer" delegate for the subdivision. All Member and Employer Trustees are elected by their respective delegates at the LAGERS Annual Meeting. The remaining Board member is a "Citizen Trustee" appointed by the governor, who can be neither a member nor employer. A complete listing of the current Board of Trustees is included on page 14.

The management of LAGERS is vested in an Executive Director who is appointed by the Board and serves at their pleasure. The Executive Director acts as advisor to the Board on all matters pertaining to the system and, with the approval of the Board, contracts for professional services and employs the remaining staff needed to operate the system. A listing of the LAGERS team is included on page 15 and advisors is included on page 8.

Normal Retirement

A member may retire with an age and service allowance after completing: 1.) at least five years of credited service, and 2.) attaining his minimum service retirement age. This minimum service retirement age is 60 for general members and 55 for law enforcement or fire personnel.

A participating LAGERS subdivision may, by a majority vote of the governing body, select an alternate unreduced retirement for employees whose age and service total 80 or more. This provision also requires five years of credited service.

Final Average Salary

Final average salary is the average of a member's monthly pay during the period of 60 consecutive months of credited service producing the highest monthly average, which is contained within the 120 consecutive months of credited service immediately preceding retirement. For most members, this is the last five years of employment. A participating LAGERS subdivision may, by majority vote of the governing body, elect to have their future retirants' benefits calculated using a 36 month final average salary period.

Credited Service

Credited service is a combination of the prior service a member accrued prior to his employer joining LAGERS and the membership service he accrues after that date. Because LAGERS is a state-wide retirement system with hundreds of member subdivisions, credited service can be a combination of service with several employers.

Age and Service Allowance

This is the normal retirement benefit and is payable monthly for the lifetime of a member. It equals a specified percent of a member's final average salary multiplied by his number of years of credited service. Each employer elects the percent applicable to his members from 10 available programs: L-1 (1% for life); L-3 (1.25% for life); LT-4(65) (1% for life, 1% to age 65); LT-5(65) (1.25% for life, .75% to age 65); L-6 (2% for life); L-7 (1.5% for life); LT-8(65) (1.5% for life, .5% to age 65); L-12 (1.75% for life); LT-14(65) (1.75% for life, .25% to age 65); and L-11 (2.5% for life – non-OASDI coverage only). All LT programs denoted LT(62) extend temporary benefits to age 62, rather than age 65. These benefit programs can be changed by majority vote of the subdivision's governing body, but not more often than biennially.

Early Retirement

A member in service may retire with an early retirement benefit after completing: 1.) at least five years of credited service, and 2.) attaining age 55 if a general member or age 50 for a law enforcement or fire member. The early retirement benefit is computed in the same manner as an age and service allowance but reduced by $\frac{1}{2}$ of 1 percent for each month the retirant is younger than his minimum service retirement age.

Deferred Retirement

If a member leaves LAGERS covered employment before attaining his early retirement age, but after completing five or more years of service, he becomes eligible for a deferred allowance; provided he lives to his early retirement age and does not withdraw his accumulated contributions, if applicable. Deferred members with less than 10 years of credited service and greater than 10 years until their minimum service retirement age may be eligible for a lump-sum payment. Any deferred benefit paid prior to the member attaining his minimum service retirement age will be reduced ½ of 1 percent for each month the retirant is younger than his minimum service retirement age.

Non-Duty Disability Benefit

A member with five or more years of credited service who becomes totally and permanently disabled from performing his job from other than duty connected causes is eligible for a non-duty disability benefit computed in the same manner as an age and service allowance, based upon his service and salary to time of disability.

Duty Disability Benefit

A member who becomes totally and permanently disabled from performing his job from a duty related injury or disease is eligible for a duty disability benefit computed in the same manner as an age and service allowance, but based upon the years of service the member would have completed had he continued in LAGERS covered employment to age 60. Continuing medical examinations are required to confirm the disability once per year for the first five years and once every three years thereafter until reaching the minimum service retirement age.

Survivors Benefit, Non-Duty Death

Upon the death of a member who had completed at least five years of credited service, an eligible spouse will receive a non-duty death benefit computed upon the deceased member's service and salary to time of death. The surviving spouse receives an allowance equal to the Option A allowance (joint and 75 percent survivor benefits). If no spouse benefit is payable, the dependent children under age 18 (23 if they are full-time students) each receive an equal share of 60 percent of the Life allowance computed for the deceased. In the event there are no surviving spouse or dependent children, any member contributions will be distributed to the named beneficiary of record.

Survivors Benefit, Duty Death

If a member's death was the natural and proximate result of a personal injury or disease arising out of and in the course of his actual performance of duty as an employee, the spouse is eligible for a duty death benefit computed in the same manner as an age and service allowance, but based upon the years of service the member would have completed had he continued in LAGERS covered employment to age 60. The surviving spouse receives an allowance equal to the Option A allowance (joint and 75 percent survivor benefits). If no spouse benefit is payable, the dependent children under age 18 (23 if they are full-time students) each receive an equal share of 60 percent of the life allowance computed for the deceased. In the event there are no surviving spouse or dependent children, any member contributions will be distributed to the named beneficiary of record.

Post Retirement Adjustment

All retired members are eligible for an annual post retirement adjustment beginning the October first twelve months after the effective date of their allowance. The adjustment is based on the increase in the Consumer Price Index and is limited to 4 percent per year. The Board of Trustees determines annually the amount of the post retirement adjustment subject to the 4 percent maximum or the increase in the Consumer Price Index.

Optional Forms of Payment

When a LAGERS member makes application for retirement, his benefits are calculated in several optional forms and he selects the one that best fits his retirement needs. This election of an optional form of payment is made immediately prior to the receipt of the first benefit check and once the election is made, it is irrevocable. The options are as follows:

Life Option: This is the largest payment available to a retirant. Upon the death of the retirant monthly payments cease. If the member has not withdrawn at least his accumulated contributions before death, a refund of the balance of his account is made to his beneficiary of record.

Option A: This is a continuing spouse option which allows the retirant to receive less (85 percent if spouse age is the same) of the Life Option with the provision that the surviving spouse will receive 75 percent of the member's benefit for the remainder of his or her lifetime.

Option B: This option is also a continuing spouse option similar to Option A except the percentages are slightly changed. Under Option B, the retirant would receive a higher benefit (90 percent of the Life Option if spouse is the same age) with the surviving spouse receiving 50 percent of the member's benefit for the remainder of his or her lifetime.

Option C: The final of the four options is referred to as a "ten-year certain" option. As with the other options, the benefit (95 percent of the Life Option) is payable for the lifetime of the member but with an added provision that the system will make at least 120 monthly payments. If the employee lives over 10 years after retirement, monthly payments will cease upon his death.

Partial Lump Sum Feature (PLUS): This feature provides the option to elect a partial lump sum distribution of the monthly retirement benefit, coupled with a reduced future monthly benefit. The lump sum distribution would be equal to 24 monthly payments of the life allowance amount (does not include any temporary allowance payable under a Life and Temporary plan) at time of retirement. The lump sum payment would result in a reduction (approximately 16 percent) of the retiree's future monthly benefit adjusted for age. All the current options (Life, Option A, Option B and Option C) still apply and may be elected with or without the partial lump sum feature.

Member Contributions

Political subdivisions may participate in LAGERS under either a contributory or non-contributory plan. If the subdivision participates under the contributory plan, each member contributes 4 percent of his gross salary, beginning after he has completed sufficient employment for six months of credited service. If a member leaves LAGERS covered employment before an allowance is payable upon his behalf, his accumulated contributions are refunded to him. If he dies prior to accruing five or more years of credited service, his accumulated contributions are refunded to his designated beneficiary(s) unless a duty-related death benefit is payable. If the subdivision participates under the non-contributory plan, the employing political subdivision pays the entire cost, while the members make no contributions.

Local governments participating in LAGERS are permitted, if the governing body elects, to grant refunds of members' contributions after two years of participation in the system under the non-contributory option. The cost of this option would be borne by the governmental unit.

Employer Contributions

The statutes require each employer to contribute the remaining amounts above that contributed by their members to finance the benefits that political subdivision has promised their employees through their participation in LAGERS. These employer contributions are determined annually by the system's retained actuary and are based upon level-percent-of-payroll funding principles so that the contribution rates do not have to increase over decades of time. A chart showing the employer contribution rates for all LAGERS employers is included on pages 73-74 of this report.



Picture Credit: Legislative Day at Capitol

SECTION 5: STATISTICAL

Statistical Summary

The objectives of the statistical section are to provide additional historical perspective, context, and relevant details to assist readers in using information in the financial statements, notes to the financial statements, and required supplementary information in order to understand and assess LAGERS overall financial condition.

The schedules beginning on page 81 show financial trend information about the change in LAGERS' assets for the past 10 years. These schedules provide detailed information about the trends of key sources of asset additions and deductions, which assist in providing a context framing how LAGERS financial position has changed over time. The financial trend schedules presented are:

- Change in Fiduciary Net Position
- Interest Credits to Reserve Accounts

The schedules beginning on page 83 show demographic and economic information. This information is designed to assist in understanding the environment in which LAGERS operates. The demographic and economic information and the operating information presented include:

- Retired Member Data
- Benefit Expenses by Type
- Average Monthly Benefit Payments
- · Participants by Classification
- Participating Political Subdivisions

Change in Fiduciary Net Position

Additions:		2019		2018	2017		2016	2015
Member contributions Employer contributions Net investment income (loss)		25,340,904 226,206,112 509,733,460	\$	19,810,928 204,018,370 860,249,908	\$ 20,923,004 199,940,705 754,483,948	1	18,105,362 183,363,684 (11,817,564)	14,773,926 190,555,456 124,483,520
Total additions	\$	761,280,476	\$	1,084,079,206	\$ 975,347,657	\$	189,651,482	\$ 329,812,902
Deductions:								
Benefits Refunds Administrative expenses Annuities awarded Pension expense OPEB expense		331,493,296 2,320,610 8,129,127 (572,052) (161,199)		307,740,098 1,919,371 5,576,429 20,073 157,006 (236,916)	282,567,670 2,565,510 5,345,355 (188,344)		262,032,383 1,844,175 5,184,440 (341,406)	250,978,528 1,861,343 5,571,466
Total deductions	\$	341,209,782	\$	315,176,061	\$ 290,290,191	\$ 2	268,719,592	\$ 258,411,337
Change in fiduciary net position	\$	420,070,694	\$	768,903,145	\$ 685,057,466	\$	(79,068,110)	\$ 71,401,565
Additions:		2014		2013	2012		2011	2010
Member contributions Employer contributions Net investment income (loss) Total additions		32,739,664 188,500,719 999,426,063 ,220,666,446	\$	12,884,566 178,505,841 673,420,965 864,811,372	\$ 12,158,422 166,947,336 166,658,100 345,763,858	8	11,603,205 154,244,689 352,214,883 018,062,777	10,563,158 137,849,763 492,574,492 640,987,413
Employer contributions Net investment income (loss)	·	188,500,719 999,426,063	ľ	178,505,841 673,420,965	166,947,336 166,658,100	8	154,244,689 352,214,883	137,849,763 492,574,492
Employer contributions Net investment income (loss) Total additions	\$ 1	188,500,719 999,426,063	\$	178,505,841 673,420,965	\$ 166,947,336 166,658,100	\$1,	154,244,689 352,214,883	\$ 137,849,763 492,574,492

Interest Credits to Reserve Accounts

A retirement system acquires and invests assets as the result of following the financial objective of level contribution rates. The Board of Trustees of LAGERS has the responsibility for seeing that the assets are invested effectively and within the limits imposed by law. The Board retains professional money managers to assist in the investment process and reviews their activities throughout the year.

The investment process continues to be volatile because of major disturbances in the economic environment.

Following is a table showing investment credits to the various reserves of the system for the last 5 years.

	Rate of Investment Return Allocated Investment Credits as a Percent of Fund Balance											
Year Ended Casualty Member Benefit Employer Percent June 30 Reserve Deposit Reserve Reserve (CPI)												
2019	7.25%	0.5%	6.6%	6.8%	1.6%							
2018	7.25	0.5	12.4	12.9	2.9							
2017	7.25	0.5	12.0	12.5	1.6							
2016	7.25	0.5	(0.4)	(0.4)	1.0							
2015												
5-Year Comp	ound Average		10.2	12.8	1.4							

- (A) Casualty Reserve assets are for the non-accrued service portion of disability benefits to future retired lives and service related deaths. The investment percent is the rate set for actuarial purposes.
- (B) Member Deposit assets are the contributions of non-retired members. The investment percent, set by the Board, affects amounts payable to members who request a refund. The percent does not affect the monthly benefit of a retiring member.
- (C) Benefit Reserve assets are for benefits to present retired lives. The investment credit is the remainder of net investment return after crediting the Casualty Reserve assets. This revised allocation of investment credits is intended to provide the resources for additional benefit increases after retirement. The investment credit to the Benefit Reserve is limited if the funded ratio of the reserve exceeds 125 percent. In addition, interest credits to the Employer Reserve are limited if the funded ratio of the Benefit Reserves is below 75 percent.
- (D) Employer Reserve assets are for benefits to future retired lives including the accrued service portion of disability benefits. The investment credit is the remainder of the net investment return after crediting the Casualty Reserve assets, followed by a further adjustment for the investment credit to the Member Deposit assets. The Employer Reserve is responsible for covering liability increases resulting from inflation losses.

Retired Member Data

	Employ	ee Class	sification			*Ty	pe of	f Reti	rement			0	ption S	elected	d
Amount of Monthly Benefit	Genera	l Police	Fire	#40	#60	#71	#72	#73	#81	#82	#83	Life	Opt. A	Opt. B	Opt. C
Deferred	5,742	1,776	320	7,838											
\$ 1-\$ 100	1,230	465	71		112	38	38	16	769	641	152	801	513	206	246
\$ 101 - \$ 200	2,125	525	46		136	27	69	23	1,355	850	236	1,305	733	230	428
\$ 201 - \$ 300	2,010	381	59		117	21	64	32	1,320	698	198	1,237	630	257	326
\$ 301 - \$ 400	1,590	293	50		69	18	71	26	1,155	439	155	985	464	200	284
\$ 401 - \$ 500	1,287	272	46		59	18	53	36	941	373	125	792	381	223	209
\$ 501 - \$ 600	1,131	221	45		52	28	44	22	822	319	110	698	360	168	171
\$ 601 - \$ 700	987	194	39		46	18	49	19	760	231	97	592	323	163	142
\$ 701 - \$ 800	817	156	45		39	15	50	21	667	162	64	507	247	150	114
\$ 801 - \$ 900	760	145	33		31	19	33	12	604	167	72	435	253	144	106
\$ 901 - \$1000	695	106	35		21	35	33	13	532	141	61	381	200	153	102
\$ 1001 - \$1100	588	91	43		14	29	24	10	481	117	47	357	165	138	62
\$ 1101 - \$1200	566	77	37		8	25	26	6	477	82	56	319	171	122	68
\$1201 - \$1300	513	103	31		18	34	26	7	436	85	41	277	175	112	83
\$1301 - \$1400	389	69	24		14	20	21	3	330	61	33	218	128	85	51
\$1401 - \$1500	427	76	40		13	34	24	5	385	55	27	241	156	97	49
\$1501 - \$1600	337	69	44		10	30	13	5	315	57	20	194	127	78	51
\$1601 - \$1700	320	75	37		7	17	14	1	328	45	20	186	129	77	40
\$1701 - \$1800	286	69	39		10	16	13	1	297	44	13	175	112	76	31
\$1801 - \$1900	287	60	29		6	16	6	2	299	38	9	167	95	80	34
\$1901 - \$2000	252	55	34		6	17	7	1	265	27	18	127	105	73	36
OVER - \$2000	2,530	668	503		32	213	52	7	3,083	244	70	1,729	889	854	229
SUBTOTALS	24,869	5,946	1,650	7,838	820	688	730	268	15,621	4,876	1,624	11,723	6,356	3,686	2,862
TOTALS		32,465		32,465					24,627						
*0 0	(D) =									6 14					

*See Summary of Plan Provisions for description of retirement and benefit options.

#40—Deferred Retirement

#60—Deceased & Monthly Benefit Payable

#71—Duty Disability Retirement

#72—Non-Duty Disability Retirement

#73—Survivor Payment-Disability Retirement

#81—Normal Retirement

#82—Early Retirement

#83—Survivor Payment-Normal Retirement

Benefit Expenses by Type

Benefit Expenses by Type:	2019	2018	2017	2016	2015
Normal benefits Survivor benefits	\$317,431,967 14,061,329	\$295,021,094 12,719,004	\$270,803,039 11,764,631	\$250,998,836 11,033,547	\$240,601,321 10,377,207
Total benefits	\$331,493,296	\$307,740,098	\$282,567,670	\$262,032,383	\$250,978,528
Total refunds	\$ 2,320,610	\$ 1,919,371	\$ 2,565,510	\$ 1,844,175	\$ 1,861,343
Benefit Expenses by Type:	2014	2013	2012	2011	2010
Benefit Expenses by Type: Normal benefits Survivor benefits	2014 \$220,127,154 9,510,682	2013 \$201,911,235 8,925,559	2012 \$187,148,905 8,477,095	2011 \$163,723,382 7,771,204	2010 \$150,404,024 7,298,701
Normal benefits	\$220,127,154	\$201,911,235	\$187,148,905	\$163,723,382	\$150,404,024

Average Monthly Benefit Payments

Retireme	ent Effective Dates		Years of Credited Service by Category							
For Fisca	al Years Ended June 30:	5-10	11-15	16-20	21-25	26-30	31 +			
Ave	erage Monthly Benefit	\$ 321	\$ 726	\$ 1,167	\$ 1,496	\$ 2,310	\$ 3,126			
	erage Final Average Salary	3,746	3,972	4,313	4,349	5,601	5,657			
	mber of Active Retirants	630	266	232	194	151	225			
Ave	erage Monthly Benefit	\$ 298	\$ 746	\$ 1,087	\$ 1,545	\$ 2,474	\$ 3,101			
	erage Final Average Salary	3,694	3,942	3,961	4,445	5,549	5,657			
	mber of Active Retirants	621	261	225	160	162	200			
Ave	erage Monthly Benefit	\$ 295	\$ 685	\$ 1,060	\$ 1,541	\$ 2,154	\$ 3,136			
	erage Final Average Salary	3,619	3,762	4,104	4,720	5,095	5,786			
	mber of Active Retirants	574	319	233	167	137	182			
Ave	erage Monthly Benefit	\$ 292	\$ 668	\$ 995	\$ 1,507	\$ 2,117	\$ 2,905			
	erage Final Average Salary	3,553	3,761	3,932	4,603	4,960	5,435			
	mber of Active Retirants	566	257	188	167	166	166			
Ave	erage Monthly Benefit	\$ 272	\$ 649	\$ 960	\$ 1,440	\$ 2,150	\$ 3,002			
	erage Final Average Salary	3,318	3,533	3,810	4,247	5,066	5,493			
	mber of Active Retirants	547	261	205	189	150	200			
Ave	erage Monthly Benefit	\$ 268	\$ 630	\$ 984	\$ 1,420	\$ 2,008	\$ 2,787			
	erage Final Average Salary	3,225	3,398	3,832	4,171	4,831	5,362			
	mber of Active Retirants	569	261	180	144	127	162			
Ave	erage Monthly Benefit	\$ 278	\$ 622	\$ 914	\$ 1,418	\$ 2,093	\$ 2,697			
	erage Final Average Salary	3,176	3,444	3,642	4,166	4,652	5,162			
	mber of Active Retirants	540	241	188	144	128	151			
Ave	erage Monthly Benefit	\$ 276	\$ 632	\$ 978	\$ 1,334	\$ 1,961	\$ 2,710			
	erage Final Average Salary	3,128	3,302	3,729	3,941	4,522	4,922			
	mber of Active Retirants	520	269	191	149	107	171			
Ave	erage Monthly Benefit	\$ 277	\$ 590	\$ 993	\$ 1,388	\$ 1,783	\$ 2,579			
	erage Final Average Salary	3,081	3,206	3,724	4,049	4,060	4,701			
	mber of Active Retirants	452	213	166	158	110	149			
Ave	erage Monthly Benefit	\$ 250	\$ 544	\$ 858	\$ 1,376	\$ 1,949	\$ 2,477			
	erage Final Average Salary	2,787	3,348	3,370	3,954	4,354	4,589			
	mber of Active Retirants	413	186	131	145	101	139			
Average Average	y 1, 2009 through June 30, 20 Monthly Benefit Final Average Salary of Active Retirants	19 \$ 283 3,333 5,432	\$ 649 3,567 2,534	\$ 1,000 3,842 1,939	\$ 1,447 4,265 1,617	\$ 2,100 4,869 1,339	\$ 2,854 5,277 1,745			

Participants by Classification

	Political Subdivisions											
Year	Cities	Counties	Health Agencies	Special Districts	Water Districts	Road Districts	Fire Districts	Emergency Services	,	Soil & Wate Cons. Dist.		
2019	314	60	68	58	41	28	51	62	48	28	758	
2018	309	60	68	57	40	27	49	58	47		715	
2017	302	60	66	53	39	27	46	56	46		695	
2016	299	60	66	50	39	27	43	53	45		682	
2015	296	60	65	49	38	27	40	48	45		668	
2014	295	60	65	48	38	27	39	47	44		663	
2013	288	60	65	47	39	26	36	41	42		644	
2012	285	60	62	46	39	25	32	34	39		622	
2011	281	60	60	43	39	26	30	32	39		610	
2010	278	60	58	59	41	27	25	14	40		602	
	27.0 00 00 00 00											

	Employee Members											
Year	Cities	Counties	Health Agencies	Special Districts	Water Districts	Road Districts	Fire Districts	Emergency Services	,	Soil & Wate Cons. Dist		
2019	19,063	8,711	1,637	2,293	216	79	946	1,027	1,089	69	35,130	
2018	18,743	8,677	1,610	2,283	209	83	899	948	981		34,433	
2017	18,544	8,546	1,621	2,303	210	84	820	910	961		33,999	
2016	18,388	8,548	1,662	2,380	204	81	712	850	956		33,781	
2015	18,289	8,311	1,726	2,321	204	84	684	777	914		33,310	
2014	18,336	8,421	1,754	2,312	207	84	685	730	909		33,438	
2013	17,959	8,336	1,855	2,272	202	82	657	680	878		32,921	
2012	17,944	8,508	1,811	2,305	212	83	596	572	894		32,925	
2011	18,148	8,637	1,852	2,269	211	86	572	544	922		33,241	
2010	18,016	8,742	1,866	2,375	209	87	491	310	936		33,032	

Participating Political Subdivisions

City or Municipality Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Advance	8	L-1	no	5	no	no	10-2005
Airport Drive	1	L-7	no	3	no	no	05-2000
Albany	18	L-7	yes	3	yes	no	07-1989
Anderson	11	L-3	no	5	yes	no	06-1990
Annapolis	2	L-7	no	3	yes	no	07-2001
Arcadia	3	L-1	no	5	yes	no	08-2015
Arnold	66	L-6	yes	3	no	no	01-1984
Ash Grove	9	L-7	no	3	yes	no	04-1972
Ashland	16	L-7	no	5	yes	no	06-1970
Aurora	50	L-12	no	3	no	yes	07-1972
Auxvasse	5	L-7	yes	5	no	no	01-1994
Ava	42	L-6	yes	3	no	no	09-1997
Ballwin	133	L-12	no	3	yes	no	11-1969
Belle	9	L-7	no	5	yes	no	05-1987
Bellefontaine Neighbors	51	L-6	no	3	no	no	07-1968
Bellflower	0	L-6	no	3	yes	no	08-1990
Bel-Ridge	20	L-1	no	5	yes	no	02-2002
Belton	171	L-6	no	3	no	yes	02-1974
Berkeley	42	LT-10 (Age 65)	yes	3	no	no	07-1968
Bernie	21	L-3	no	3	no	no	08-1978
Bethany	24	L-6	no	5	yes	no	01-1976
Beverly Hills	1	L-1	no	5	yes	no	07-1991
Bevier	3	L-1	no	5	yes	no	07-1999
Bland	2	L-1	yes	5	no	no	09-1994
Bloomfield	12	L-1	no	5	no	no	10-2001
Blue Springs	271	L-7	no	3	no	yes	09-1973
Bolivar	89	L-7	no	3	yes	no	02-1973
Boonville	67	L-12	no	3	no	yes	05-1971
Bourbon	10	L-1	no	3	no	no	01-2000
Bowling Green	17	L-12	no	5	no	yes	01-1979
Branson	250	L-6	yes	3	yes	no	01-1978
Braymer	4	LT-8 (Age 62)	no	3	yes	no	12-1970
Brentwood	55	L-7	no	3	no	yes	04-1969
Brookfield	44	L-3	no	5	no	no	02-1989
Buckner	17	L-1	no	3	yes	no	10-1987
Buffalo	22	L-7	yes	3	yes	no	01-1974
Butler	50	LT-5 (Age 65)	yes	3	no	no	06-1993
Cabool	27	L-12	no	3	no	yes	10-1969
Camdenton	44	L-7	no	3	no	no	07-2008
Cameron	57	L-6	no	3	no	no	07-1968
Campbell	13	L-1	no	5	yes	no	02-2005
Canton	16	L-7	no	3	no	yes	07-1979
Cape Girardeau	377	LT-14 (Age 65)		3	no	yes	02-1973
Carl Junction	32	L-6	no	5	yes	no	06-1971

 $\ \, \hbox{+See Summary of Plan Provisions for benefit program description}.$

^{*}Charter Member

City or Municipality Name:	Employee	Benefit	Rule	Final Average		Non-Contrib.	Membership
	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Carthage	51	L-6	no	3	no	no	07-1982
Caruthersville	41	L-3	no	5	no	yes	01-1979
Cassville	28	L-7	no	5	yes	no	02-2010
Centralia	36	L-7	yes	5	no	yes	07-1972
Charleston	28	L-1	no	5	no	no	05-1980
Chillicothe	66	L-12	no	3	no	yes	05-1978
Clarksville	4	L-3	no	5	no	no	10-1974
Claycomo	23	L-12	no	5	no	no	04-2007
Cleveland	4	L-3	no	5	yes	no	04-2007
Clever	10	L-1	yes	5	yes	no	07-1998
Clinton	69	L-12	no	5	yes	no	02-1972
Columbia	1,015	L-6	no	3	no	yes	02-1969
Concordia	18	L-3	no	3	yes	no	05-1978
Cool Valley	5	L-7	no	5	no	no	07-1972
Cottleville	19	L-7	yes	5	yes	no	06-2010
Crestwood	80	L-7	no	3	no	yes	07-1968
Creve Coeur	62	LT-8 (Age 65)	no	5	yes	no	08-2017
Crocker	8	L-1	no	5	no	no	09-1988
Crystal City	49	L-6	no	5	no	yes	04-1970
Cuba	42	L-6	yes	3	no	yes	04-1971
Dardenne Prairie	8	L-7	yes	5	no	no	11-2006
Dellwood	9	L-12	no	3	no	no	01-1975
De Soto	46	L-7	no	5	no	no	01-1983
Dexter	66	L-6	yes	3	no	no	08-1973
Dixon	11	L-7	no	5	yes	no	12-2000
Doniphan	22	L-7	no	5	yes	no	01-1993
Drexel	3	L-7	no	5	no	no	06-1998
Edmundson	15	L-7	no	5	yes	no	01-2012
El Dorado Springs	37	L-6	no	3	no	yes	07-1975
Eldon	49	L-1	no	5	yes	no	05-2005
Ellington	5	L-1	no	5	yes	no	07-2009
Ellisville	60	L-12	no	3	no	no	08-1971
Elsberry	4	L-3	yes	5	no	no	01-1998
Eminence	4	L-3	no	5	no	yes	09-1996
Eureka	68	L-6	yes	3	no	no	11-1973
Excelsior Springs	121	L-7	no	5	no	yes	12-1972
Fair Grove	10	L-1	no	5	yes	no	09-2005
Farmington	138	LT-8 (Age 65)	yes	3	no	no	02-1969
Fayette	19	L-7	yes	5	no	yes	07-1970
Fenton	39	LT-8 (Age 65)	no	3	no	yes	01-1971
* Festus	92	L-6	no	5	no	yes	04-1968
Foristell	9	L-3	no	3	no	no	10-2003
Forsyth	15	L-6	no	5	yes	no	07-1985
Fredericktown	41	LT-8 (Age 65)	yes	5	no	no	05-1968

†See Summary of Plan Provisions for benefit program description.

*Charter Member

City or Municipality Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Frontenac	51	LT-8 (Age 65)	no	3	no	yes	08-1972
Fulton	174	L-6	yes	5	yes	no	08-1968
Gainesville	4	L-1	no	5	yes	no	12-1984
Garden City	4	L-1	no	5	yes	no	04-1993
Gerald	7	L-1	no	3	yes	no	04-2003
Gideon	5	L-3	yes	5	yes	no	10-1970
Gladstone	162	L-6	no	5	yes	no	09-1968
Glasgow	6	L-3	no	5	no	no	10-1974
Glendale	7	LT-8 (Age 62)	no	5	no	yes	02-1971
Golden City	3	L-1	no	5	yes	no	01-2012
Gower	6	L-7	no	5	no	no	01-2010
Grain Valley	55	L-7	no	5	no	no	01-1999
Granby	12	L-1	no	5	yes	no	02-2014
Grandview	182	LT-5 (Age 65)	no	3	no	no	07-1971
Grant City	8	L-1	no	5	yes	no	05-1999
Green City	4	L-1	no	5	no	yes	04-1988
Hale	2	L-7	no	3	no	no	06-1998
Hannibal	62	LT-14 (Age 65)	yes	5	no	yes	11-1969
Hardin	4	L-1	no	3	yes	no	02-1997
Harrisonville	115	LT-14 (Age 65)	no	3	no	no	08-1972
Hartville	5	L-7	no	3	yes	no	07-2001
Hayti	27	L-3	no	5	yes	no	01-1994
Henrietta	2	L-1	no	3	yes	no	02-2009
Herculaneum	25	L-1	no	5	yes	no	11-2013
Hermann	37	L-1	no	3	no	no	09-1980
Higginsville	73	LT-10 (Age 65)	yes	3	no	yes	08-1970
Hillsboro	17	L-7	no	5	no	no	07-1980
Holden	8	L-9	no	5	no	no	04-1974
Hollister	44	L-6	yes	3	yes	no	05-1998
Holts Summit	24	L-3	no	5	no	no	01-1998
Hopkins	3	L-1	no	3	yes	no	02-2013
Houston	28	L-6	yes	3	no	yes	05-1971
Humansville	4	L-1	yes	5	yes	no	06-2006
Huntsville	6	L-7	no	5	no	no	05-2001
Independence	978	L-6	no	3	yes	no	11-1968
Indian Point	4	L-7	yes	5	yes	no	11-2017
Ironton	11	L-1	no	5	no	no	10-2008
* Jackson	129	L-6	no	3	no	yes	04-1968
Jamesport	1	L-1	no	5	yes	no	12-2016
Jefferson City	418	L-6	yes	3	no	yes	01-1970
Jefferson City (Legacy)	0	-	no	-	no	no	05-2017
Jennings	49	L-12	no	3	no	no	09-1968
Jennings (Legacy)	0	-	no	-	no	no	12-2017

City or Municipality Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Jonesburg	4	L-7	no	3	no	no	01-1997
Joplin	285	L-6	no	5	no	no	01-1973
Kearney	38	L-7	no	3	no	no	04-1992
Kennett	55	L-7	no	3	no	yes	07-1968
Kimberling City	11	LT-8 (Age 65)	no	3	no	no	03-1994
King City	2	L-1	no	5	yes	no	03-2018
Kingdom City	2	L-1	no	5	no	no	04-2011
Kirksville	140	L-12	no	5	no	yes	01-1977
Knob Noster	16	LT-4 (Age 65)	yes	5	no	no	02-1999
La Grange	15	L-12	no	3	no	yes	02-1977
La Plata	12	L-7	no	5	no	yes	11-1972
Lake Lotawana	9	L-1	yes	5	no	no	08-2002
Lake Ozark	35	L-3	no	3	no	no	05-2000
Lake Saint Louis	86	LT-8 (Age 65)	yes	3	no	yes	11-1985
Lake Winnebago	8	L-1	no	3	yes	no	04-1999
Lamar	63	L-7	no	5	no	no	09-1998
Lathrop	10	L-3	no	5	no	no	07-1996
Lawson	15	L-1	no	5	no	no	08-2000
Lebanon	144	L-7	no	5	no	no	11-1984
Lee's Summit	625	L-6	no	5	no	yes	04-1970
Lexington	29	L-1	no	5	yes	no	08-2013
Liberty	231	L-6	no	5	yes	no	07-1970
Licking	11	L-12	no	3	no	no	01-1985
Lincoln	5	L-1	no	5	no	no	02-2012
Linn	5	L-1	yes	5	no	no	05-2003
Lockwood	6	L-9	no	3	no	no	04-1968
Lone Jack	13	L-3	yes	3	yes	no	01-2018
Louisiana	27	L-3	no	5	no	no	07-1968
Macon	79	LT-8 (Age 65)	yes	3	no	no	06-1968
Malden	53	L-6	no	5	yes	no	07-1976
Mansfield	16	L-1	no	3	yes	no	04-2003
Maplewood	70	L-6	no	3	yes	no	04-1970
Marceline	31	L-6	no	5	yes	no	04-1981
Marionville	6	L-7	no	3	yes	no	12-1988
Marshall	172	L-12	no	5	no	no	04-1971
Marshfield	34	L-6	no	5	yes	no	01-1990
Maryland Heights	186	L-6	no	5	no	no	01-2004
Maryville	68	L-12	no	3	no	no	01-1973
Matthews	5	L-1	yes	5	no	no	08-2006
Memphis	23	L-6	yes	3	yes	no	01-1972
Mercer	2	L-3	no	3	yes	no	06-1988
Merriam Woods	3	L-1	no	5	yes	no	11-2006
* Mexico	72	L-6	yes	3	no	no	04-1968
Milan	13	L-1	no	3	no	yes	01-1987

†See Summary of Plan Provisions for benefit program description.

*Charter Member

City or Municipality Name:	Employee	Benefit	Rule	Final Average	Employee	Non-Contrib.	Membership
	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Miner	18	L-6	yes	3	no	no	03-1995
Moberly	110	LT-8 (Age 65)	yes	3	no	yes	08-1968
Moline Acres	11	LT-5 (Age 65)	no	5	no	no	04-1974
Monett	112	L-6	yes	3	yes	no	03-1978
Montgomery City	18	L-3	no	3	no	yes	03-1971
Moscow Mills	14	L-3	no	5	yes	no	11-2018
Mound City	7	L-6	no	3	yes	no	04-1971
Mount Vernon	30	L-7	yes	5	no	yes	09-1972
Mountain Grove	41	LT-8 (Age 62)	no	5	no	no	07-1987
Mountain View	42	L-7	no	5	no	yes	07-1989
Neosho	101	LT-8 (Age 65)	yes	3	no	yes	07-1971
Nevada	74	LT-8 (Age 65)	yes	5	no	no	11-1968
New Haven	18	L-1	no	5	yes	no	01-2013
New London	6	L-3	no	5	yes	no	01-2011
New Madrid	38	L-6	no	3	no	no	08-1968
Nixa	125	L-6	no	5	yes	no	01-1990
Norborne	2	L-3	no	5	yes	no	09-1969
Normandy	35	L-7	no	5	no	no	06-1969
North Kansas City	71	L-6	yes	3	no	no	11-1969
Northwoods	29	L-6	no	5	no	no	07-1972
Oak Grove	40	L-7	no	3	no	no	08-1969
Oak Grove Village	1	L-1	no	5	yes	no	02-2012
Oakland	0	LT-8 (Age 65)	no	5	no	no	04-2004
Oakview	5	L-1	no	5	yes	no	05-2009
Odessa	38	L-7	yes	3	no	yes	07-1975
O'Fallon	427	LT-8 (Age 65)	no	5	no	yes	02-1975
Osceola	7	L-1	no	3	yes	no	09-2001
Owensville	17	L-6	yes	5	no	no	05-1972
Ozark	102	L-12	no	3	no	yes	07-1990
Pacific	42	L-6	yes	5	no	yes	04-1987
Pagedale	27	L-3	no	5	no	no	03-1972
Palmyra	33	LT-14 (Age 65)	yes	3	no	no	04-1968
Paris	12	L-7	no	3	no	no	02-1969
Parkville	38	L-7	no	5	yes	no	08-2009
Parkway	3	L-6	no	5	yes	no	01-2014
Pattonsburg	2	L-1	no	5	yes	no	06-1975
Peculiar	28	L-6	yes	3	no	yes	10-1986
Perry	6	L-6	no	3	yes	no	01-1971
Perryville	99	L-6	no	3	no	yes	03-1969
Pevely	35	L-7	no	5	yes	no	10-2015
Piedmont	17	LT-5 (Age 65)	yes	3	no	yes	08-1974
Pilot Knob	5	L-7	no	3	yes	no	06-1992
Pine Lawn	6	L-1	no	5	no	no	07-1970
Pineville	9	L-1	no	5	yes	no	09-2018

City or Municipality Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Platte City	29	L-7	no	5	yes	no	05-1987
Platte Woods	2	L-6	no	5	no	no	02-2018
Plattsburg	17	L-3	no	5	no	yes	02-1972
Pleasant Hill	38	L-6	yes	3	no	yes	05-1978
Poplar Bluff	234	L-6	no	5	no	yes	02-1971
Portageville	36	L-3	no	5	no	no	09-1996
Potosi	30	L-7	no	3	no	yes	04-1973
Princeton	8	L-6	no	5	yes	no	01-1973
Purdy	6	L-1	no	5	no	no	02-2017
Puxico	5	L-7	no	5	yes	no	07-2007
Ravenwood	1	L-1	no	3	yes	no	11-2000
Raymore	98	L-6	no	3	no	no	01-1990
Raytown	98	L-12	no	5	yes	no	07-2003
Republic	110	L-3	no	3	no	no	03-2009
Richland	15	L-3	no	5	no	yes	07-1988
Richmond	57	L-6	no	3	yes	no	05-1968
Richmond Heights	43	L-3	no	3	no	no	12-1990
Riverside	75	L-6	no	5	no	no	01-1997
Riverview	15	L-3	no	5	yes	no	08-1989
Rock Hill	32	L-3	no	5	no	no	04-1968
Rogersville	18	L-1	no	3	yes	no	07-2017
Rolla	193	LT-14 (Age 65)	yes	3	no	yes	01-1969
Russellville	1	L-7	no	3	no	no	05-1999
Salem	57	L-6	yes	3	yes	no	12-1984
Salisbury	16	L-6	yes	5	yes	no	07-2016
Savannah	26	L-9	no	5	no	yes	07-1976
Scott City	29	L-7	no	5	yes	no	01-1993
Sedalia	174	L-6	no	3	no	yes	08-1972
Sedalia (Legacy)	0	-	no	-	no	no	06-2019
Seneca	10	L-3	no	3	no	no	05-1975
Seymour	15	L-9	no	3	no	no	04-1996
Shelbina	26	L-6	yes	3	yes	no	11-1969
Shelbyville	2	L-1	no	5	yes	no	12-2006
Sheldon	1	LT-4 (Age 65)	yes	3	yes	no	01-2008
* Shrewsbury	59	LT-8 (Age 65)	no	3	no	yes	04-1968
* Sikeston	114	LT-8 (Age 65)	no	3	no	yes	04-1968
Slater	16	L-7	no	5	no	no	02-1969
Smithton	1	L-1	no	5	yes	no	07-2017
Smithville	52	L-7	no	3	yes	no	01-2004
Sparta	6	L-7	no	3	no	no	07-2007
Springfield	1,546	L-6	no	3	no	no	06-1968
St. Ann	96	L-6	yes	3	yes	no	06-1968
* St. Charles	443	LT-8 (Age 65)	yes	3	no	yes	04-1968

†See Summary of Plan Provisions for benefit program description.
*Charter Member

City or Municipality Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
St. Clair	31	L-6	no	5	no	yes	05-1980
St. James	42	L-6	no	3	yes	no	06-1974
St. John	42	L-7	no	5	no	yes	03-1970
St. Joseph	650	L-6	no	3	yes	no	04-1970
St. Mary	4	L-1	no	5	yes	no	11-2007
St. Peters	403	L-6	yes	3	yes	no	01-1976
St. Robert	77	L-7	no	3	yes	no	04-1983
Stanberry	10	L-3	no	5	yes	no	01-2015
Ste. Genevieve	23	LT-8 (Age 65)	no	5	yes	no	10-1984
Steelville	15	L-7	no	3	no	no	03-1997
Stockton	9	L-1	no	5	yes	no	10-1988
Strafford	14	L-3	no	3	no	no	02-2009
Sugar Creek Sullivan	54 57	L-12 L-6	no	3	no	yes	05-1968 03-1972
Sunrise Beach	57 5	L-0 L-3	yes	3 3	no	yes	06-2005
Sunset Hills	70	L-3 L-7	no no	3	no no	no yes	10-1972
Sweet Springs	9	L-3	yes	5	no	yes	04-1973
Thayer	26	L-1	no	5	yes	no	01-1997
Tipton	11	L-7	yes	3	yes	no	04-1981
Town And Country	47	LT-14 (Age 65)	•	3	no	no	02-2007
Trenton	41	L-6	no	5	no	yes	05-1979
Troy	52	L-3	no	5	no	no	08-2008
Twin Oaks	4	L-7	no	3	yes	no	01-2007
Union	68	L-6	no	3	no	yes	01-1974
Unionville	19	L-6	yes	5	yes	no	10-1982
Valley Park	18	L-6	no	5	yes	no	11-1972
Van Buren	4	L-1	no	5	no	no	01-2003
Vandalia	24	L-7	no	5	no	no	05-1988
Verona	4	L-1	no	5	yes	no	01-2013
Vienna	4	L-1	no	5	no	no	09-2002
Vinita Park	46	L-6	no	3	no	no	08-1971
Warrensburg	120	L-7	no	5	no	yes	07-1968
Warrenton	62	L-1	no	5	yes	no	08-2015
Warsaw	21	L-7	no	5	no	no	05-1999
Washington	116	LT-10 (Age 65)	-	3	no	no	01-1971
Waverly	5	L-3	no	5	yes	no	10-1986
Waynesville	55	L-6	no	3	no	yes	09-1985
Webb City	100	L-7	no	3	no	no	03-1975
Webster Groves Wellston	148	L-12 L-1	no	5 5	yes	no	07-2013
Wentzville	1 226	L-1 L-7	no	5 5	no	no	07-1971 02-1973
West Plains	183	L-7 LT-10 (Age 65)	no	5 3	no no	no no	02-1973
Weston	13	L-10 (Age 65)	yes no	3	yes	no	02-1973
Weston	36	L-3 L-7	no	5	yes	no	04-2004
Willow Springs	30	L-7 L-7	no	5	no	no	06-1993
vvinow Opinigo	30	L- <i>1</i>	110	5	110	110	00-1990

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City or Municipality Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Contrib.	Refund	. Membership Date
Winchester	3	LT-5 (Age 62)	no	5	no	no	10-1982
Windsor	10	L-9	no	3	yes	no	08-1973
Winfield	7	L-1	no	5	yes	no	05-2003
Winona	7	L-1	no	3	yes	no	11-2013
Wood Heights	4	L-3	no	3	yes	no	01-1999
Woodson Terrace	30	L-7	no	5	no	yes	12-1969
Wright City	20	L-1	no	5	yes	no	02-2014
County Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Adair County	72						
Adair County	72 69	L-6 L-6	no	5	no	yes	03-1977 03-1976
Andrew County	43	L-0 L-12	no	3	no	no	03-1976
Atchison County	43 79	L-12 L-12	no	3	no	no	
Audrain County	79 227	L-12 L-6	no	3	no	no	04-1968
Buchanan County	114	L-6 L-6	no	5	no	yes	06-1971
Butler County Caldwell County	69	L-0 L-1	yes	3	no	yes	04-1968 01-1984
•	142	L-1 L-7	no	5	yes	no	01-1964
Callaway County Camden County	276	L-7 L-6	no	5	no	yes	01-1977
Cape Girardeau County	181	L-6 L-6	yes	5 3	no	yes	02-1909
Cass County	241	L-0 L-3	no	3	no no	yes	01-1983
Chariton County	34	L-3 L-7	no no	3		yes no	01-1991
Christian County	201	L-7 L-9	no	3	yes no		03-1989
Clark County	30	L-9 L-1	no	5	yes	yes no	01-1980
Clay County	513	L-9	no	3	no	yes	11-1975
Clinton County	49	L-3	no	5	yes	no	01-1986
* Cole County	284	L-7	no	5	no	yes	04-1968
Dekalb County	34	L-3	no	3	no	no	12-1983
Dunklin County	84	L-7	no	3	yes	no	01-1969
Franklin County	309	L-6	yes	3	no	yes	01-1970
Gasconade County	45	L-7	no	5	no	yes	01-1974
Greene County	799	L-7	no	3	no	yes	01-1972
Holt County	32	L-3	no	3	yes	no	01-1974
Howard County	35	L-7	no	5	no	no	06-1976
Howell County	98	L-6	yes	3	no	yes	01-1974
Iron County	45	L-7	no	5	yes	no	01-1970
Jasper County	272	L-6	no	3	no	yes	01-1983
Jefferson County	573	L-12	no	3	no	yes	03-1969
Lafayette County	87	L-12	no	3	yes	no	01-1970
Lawrence County	83	L-7	no	3	yes	no	01-1973
Lewis County	38	LT-8 (Age 65)	no	3	no	yes	11-1974
Livingston County	34	L-3	no	3	no	yes	12-1988
Macon County	59	L-3	no	5	yes	no	01-1990
Marion County	89	L-6	no	3	no	yes	02-1972

†See Summary of Plan Provisions for benefit program description. *Charter Member

County Name	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Miller County	110	L-6	no	5	yes	no	01-1976
Mississippi County	41	L-6	no	5	yes	no	02-1973
Monroe County	44	L-7	no	3	no	no	02-1980
Montgomery County	77	LT-8 (Age 65)	no	3	yes	no	02-1973
* New Madrid County	68	L-6	yes	5	no	yes	04-1968
Nodaway County	53	L-7	no	5	yes	no	07-1973
* Pemiscot County	84	L-7	no	3	no	yes	04-1968
Perry County	81	L-12	no	3	no	yes	05-1968
Pettis County	116	L-12	no	3	no	no	10-1971
Phelps County	140	L-6	yes	3	yes	no	01-1969
Pike County	68	L-6	yes	3	yes	no	12-1971
Platte County	258	L-12	no	3	no	no	01-1974
Ralls County	47	L-7	no	5	no	yes	01-1973
Randolph County	84	L-9	no	3	yes	no	04-1969
Ray County	69	L-7	no	3	no	no	04-1969
Scott County	91	L-7	no	3	no	yes	05-1969
Shannon County	37	L-1	no	5	yes	no	02-1978
St. Charles County	996	LT-8 (Age 65)	no	3	no	yes	08-1973
St. Clair County	80	L-3	no	5	yes	no	07-1979
St. Francois County	180	L-6	no	3	yes	no	10-1969
Ste. Genevieve County	112	L-7	no	3	yes	no	05-1970
Stoddard County	76	L-7	no	5	no	no	01-1969
Taney County	278	L-6	no	5	no	yes	08-1985
Texas County	56	L-9	yes	3	no	yes	09-1975
Vernon County	72	L-7	no	3	no	yes	01-1969
Wright County	53	L-12	yes	3	no	no	12-1981
Health Department Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Adair County Health Department	12	L-1	no	5	yes	no	07-1981
Andrew County Health Department	3	L-3	no	3	yes	no	01-2011
Audrain County Health Department	14	L-1	no	5	no	no	01-2013
Bates County Health Center	7	L-3	no	5	no	no	08-1992
Benton County Health Department	49	L-1	no	3	no	no	01-2018
Butler County Health Department	22	L-6	yes	5	no	yes	08-1968
Caldwell County Health Department	6	LT-8 (Age 65)	yes	5	yes	no	01-1984
Cape Girardeau County Health Department	30	L-7	no	3	no	yes	01-1985
Carter County Health Center	6	L-1	no	5	no	no	06-1978
Chariton County Health Department	4	L-1	yes	5	yes	no	05-2006
Clark County Health Department	12	L-6	no	3	no	yes	01-1981
Clay County Health Department	46	L-9	no	3	no	yes	11-1975
Clinton County Health Department	6	L-3	no	5	yes	no	01-1986
Cooper County Health Center	7	L-1	no	5	yes	no	01-2013
Dallas County Health Department	5	L-1	no	5	yes	no	01-1991

Health Department Name:	Employee	Benefit	Rule	Final Average	Employee	Non-Contrib	Membership
- Псакт Берактен мате.	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Daviess County Health Department	7	L-7	no	3	yes	no	07-2003
Dent County Health Center	6	L-3	no	3	yes	no	02-1991
Douglas County Health Department	11	L-7	no	3	yes	no	06-2010
Dunklin County Health Department	14	LT-10 (Age 65	i) no	3	yes	no	02-1969
Gasconade County Health Department	6	L-1	no	5	no	yes	04-1981
Grundy County Nursing Home District	66	L-1	no	5	no	no	07-2005
Henry County Health Department	11	L-1	yes	3	yes	no	01-2009
Iron County Health Department	6	L-3	yes	5	yes	no	03-1973
Jefferson County Health Department	54	L-7	yes	3	no	no	10-1987
Laclede County Health Center	12	L-7	no	5	yes	no	08-1991
Lafayette County Health Department	10	L-12	no	3	no	no	01-1982
Lewis County Health Department	11	L-12	no	3	no	yes	05-1974
Lincoln County Health Department	22	L-7	no	3	yes	no	01-2002
Linn County Health Department	7	L-7	no	3	yes	no	05-1993
Livingston County Health Department	8	L-7	yes	3	yes	no	12-1988
Macon County Health Department	10	L-7	yes	5	no	no	08-1974
Madison County Health Department	11	L-1	no	5	yes	no	03-1998
Madison Medical Center	201	L-1	no	5	no	no	10-1972
Marion County Health Department	7	L-9	no	3	yes	no	02-1972
Miller County Health Department	13	L-3	no	5	no	no	01-1976
Mississippi County Health Department	12	L-3	no	5	no	yes	07-1977
Moniteau County Health Center	6	L-3	no	5	no	no	11-1990
Monroe County Health Department	6	L-7	no	5	no	no	04-1981
Montgomery County Health Department	11	L-3	no	3	yes	no	02-1973
Nevada City Hospital	246	L-1	no	5	no	yes	09-1970
Nevada City Nursing Home	77	L-3	no	5	no	yes	10-1978
New Madrid County Health Department	11	L-6	yes	5	no	yes	06-1968
Nodaway County Health	5	L-1	no	3	yes	no	03-2018
Pemiscot County Health Department	7	L-7	yes	3	no	yes	10-1968
Pemiscot County Memorial Hospital	245	L-7	yes	3	yes	no	02-1981
Pettis County Health Center	19	L-9	no	3	yes	no	01-1987
Pike County Health Department	28	L-11	yes	3	yes	no	12-1971
Platte County Health Department	27	L-7	no	3	no	no	01-1974
Polk County Health Center	12	L-1	no	3	yes	no	02-1991
Pulaski County Health Department	17	L-3	yes	3	yes	no	01-1979
Putnam County Health Department	5	L-7	yes	3	no	no	03-1995
Ralls County Health Department	9	L-12	no	3	no	yes	04-1973
Randolph County Health Department	20	L-7	no	5	yes	no	04-1981
Ray County Public Health Department	5	L-6	yes	3	yes	no	01-1988
Saline County Health Department	12	L-1	no	3	yes	no	03-2005
Scott County Health Department	15	L-7	yes	3	no	yes	10-1970
Shannon County Health Center	14	L-1	no	5	yes	no	07-1982
St. Clair County Health Department	6	L-3	no	5	no	no	01-1981
St. Francois County Health Department	23	L-7	yes	3	yes	no	01-1983

†See Summary of Plan Provisions for benefit program description.

*Charter Member

Health Department Name:	Employee	Benefit	Pulo-	Final Average	Employee	Non Contrib	Membership
	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Contrib.	Refund	Membership Date
Ste. Genevieve County Health Department	8	L-7	no	3	yes	no	09-1982
Stone County Health Department	16	L-1	no	5	yes	no	06-2016
Sullivan County Memorial Hospital	0	L-1	no	5	yes	no	01-2013
Sullivan County Health Department	4	LT-8 (Age 65)	no	3	no	no	04-1995
Texas County Health Department	10	L-12	no	5	no	yes	07-1987
Vernon County Health Department	8	L-6	yes	3	no	yes	05-1987
Washington County Health Department	11	L-3	yes	3	no	no	01-1991
Wayne County Health Center	7	L-7	yes	3	no	no	05-1996
Webster County Health Unit	13	L-1	no	5	yes	no	07-1999
	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Abilities First Greene County Senate Bill 40	108	L-6	no	3	no	no	01-2001
Adair Co. Senate Bill 40 DD Board	18	L-7	no	5	no	no	10-2010
Andrew County Senate Bill 40 (Sunshine Factor	y) 2	L-1	no	3	no	no	09-2017
Audrain Developmental Disability Services	57	L-12	no	5	no	no	04-1996
Boone County Family Resources	120	L-12	no	3	yes	no	07-2004
Boonslick Regional Planning Commission	13	L-3	yes	5	yes	no	07-2006
Bootheel Regional Planning Commission	4	LT-4 (Age 65)	yes	5	yes	no	01-2005
Callaway County Special Services	7	L-6	yes	3	no	no	07-1996
Camden County Senate Bill 40	18	L-1	no	3	no	no	01-2008
Carthage Utilities	70	L-6	no	3	no	no	07-1982
Chariton County Sheltered Workshop	1	L-1	no	5	yes	no	02-2000
Chillicothe Township	3	L-7	no	3	yes	no	08-1995
Chillicothe Utilities	49	L-12	no	3	no	yes	05-1978
Christian Co. Bd. For The Developmental Disable	ed 16	L-6	no	3	no	no	02-2013
Daviess/Dekalb County Regional Jail	37	L-7	no	3	yes	no	11-2007
DD Resource Board of Jasper Co.	39	L-7	no	3	no	no	01-2001
Gasconade County Senate Bill 40	4	L-1	no	5	no	no	07-2001
Green Hills Regional Planning Commission	6	L-7	no	3	yes	no	02-2011
Hannibal Public Works	66	LT-14 (Age 65)	yes	5	no	yes	11-1969
Harry S. Truman Coordinating Council	4	L-12	no	3	yes	no	07-2005
Howell County Sheltered Workshop	7	L-6	no	3	no	no	08-2013
Independence Township	3	L-1	no	3	no	no	07-2006
Jefferson County Public Sewer District	4	L-3	no	5	yes	no	02-2015
Kaysinger Basin Regional Planning Commission	4	L-1	yes	5	no	no	01-2012
Kennett Utilities	61	L-7	yes	3	no	yes	07-1968
Lawrence Co. Board For Developmental Disable	ed 8	L-7	no	3	no	no	01-2017
Liberty Township	12	L-6	yes	3	no	no	06-1995
Madison Co. Council For Developmental Disable	ed 6	L-3	no	5	no	no	04-1998
Mark Twain Regional Council of Governments	3	LT-4 (Age 65)	no	5	yes	no	04-2017
Mid-Missouri Regional Planning Commission	5	L-7	no	5	yes	no	09-2007
Missouri Joint Municipal Electric Utility Comm.	33	L-6	no	3	no	no	01-1990
Mo-Kan Regional Council	6	L-7	no	5	yes	no	09-2017

Special District Name:	Employee	Benefit	Rule	Final Average	Employee		. Membership
	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Moniteau County Senate Bill 40 Board	16	L-1	no	5	no	no	02-2009
Montgomery County Senate Bill 40	13	L-7	no	5	no	no	08-2001
Northeast Missouri Regional Planning	5	L-1	no	5	yes	no	10-2004
Ozark Transportation Organization	5	L-6	no	5	no	no	01-2019
Pemiscot County Port Authority	2	L-1	no	5	yes	no	08-2017
Pike County Senate Bill 40	40	LT-14 (Age 65)) yes	3	no	no	10-1998
Pike Creek Common Sewer District	4	L-1	no	3	no	no	08-2009
Platte County Regional Sewer District	6	L-3	no	5	yes	no	05-2012
Progressive Community Services	31	L-12	no	3	no	no	04-2000
Pulaski County Sewer District # 1	16	L-12	no	5	yes	no	03-2016
Randolph County DD Services	14	L-7	no	5	no	no	01-2018
Rock Creek Public Sewer	12	L-6	yes	3	no	no	03-2000
Rolla Municipal Utilities	55	L-6	no	3	no	yes	01-1969
Salisbury Township	2	L-1	no	3	yes	no	04-1989
Sedalia Water Department	17	L-6	no	3	no	yes	08-1972
Sikeston Utilities	136	L-6	no	3	no	yes	04-1968
South Central Ozark Council Of Governments	7	L-6	no	3	yes	no	11-2005
Southeast Missouri Regional Planning	7	L-7	no	5	no	no	01-2005
Springfield Utilities	913	L-6	no	3	no	yes	06-1968
St. Charles County Development Handicapped	56	L-7	no	3	no	no	03-1996
St. Francois County Joint Commission Center	21	L-6	yes	3	yes	no	06-2007
St. Francois Co. Bd. For DD	40	L-1	no	5	yes	no	07-2005
St. Louis MR DD Resources	33	L-3	no	5	no	no	05-1996
Taney County Regional Sewer District	13	L-6	yes	3	no	no	02-2012
Trenton Municipal Utilities	30	L-6	no	5	no	yes	05-1979
Webster County Senate Bill 40	5	L-6	no	3	no	no	04-2017
Water District Name:	Employee	Benefit	Rule	Final Average	Employee	Non-Contrib.	Membership
	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Adair County PWSD No. 1	7	L-3	no	3	no	yes	01-1992
Audrain County PWSD No. 2	3	L-7	yes	3	no	no	01-2008
Boone County Public Water District No. 4	6	L-7	no	3	no	no	08-1984
Boone County PWSD No. 10	5	L-12	no	5	yes	no	01-1998
Butler County PWSD No. 1	10	L-6	no	3	yes	no	07-1995
Butler County PWSD No. 3	2	L-7	yes	3	yes	no	03-1995
Callaway 2 Water District	14	L-12	yes	3	no	yes	02-1985
Callaway County PWSD No. 1	7	L-11	no	3	no	no	01-1994
Camden County PWSD No. 4	8	L-1	no	3	no	no	01-2007
Carroll County PWSD No. 1	0	L-1	no	3	yes	no	06-2008
Clarence Cannon Wholesale Water Commission		L-7	no	3	no	no	10-2004
Clark County PWSD No. 1	6	L-7 L-3	no	3	no	no	07-2004
Clay County Water District No. 2	4	L-3	no	3		no	12-1984
Cole County Water District No. 2	7	L-6	no	5	yes no	no	02-1974
Cole County PWSD No. 4	4	L-7		5			02-1974
Cole County F WSD NO. 4	4	L- <i>1</i>	no	5	no	no	02-200 I

†See Summary of Plan Provisions for benefit program description.

*Charter Member

Water District Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Daviess Co. PWSD No. 1	3	L-3	no	5	no	no	06-2000
Greene County PWSD No. 5	1	L-6	no	3	yes	no	08-1991
Harrison Co. PWSD No. 2	4	LT-10 (Age 65)	no	3	no	no	08-1998
Jackson County Public Water District No. 1	15	L-6	no	3	no	yes	03-1969
Jasper County Public Water No. 1	3	L-3	no	5	yes	no	01-2002
Jefferson Co. PWSD No. 6	6	L-3	no	3	yes	no	08-1997
Jefferson Co. PWSDNo. 12	4	L-1	no	5	no	no	06-2000
Jefferson County Water District No. 1	12	L-6	no	5	yes	no	04-1972
Jefferson County Water District No. 2	16	L-6	no	5	yes	no	01-1983
Jefferson County Water District No. 5	5	L-7	no	3	no	no	01-1987
Jefferson County Water District No. 7	6	L-12	no	3	no	yes	06-1975
Jefferson County Water District No. 10	4	L-3	no	5	yes	no	02-1989
Laclede Co. PWSD No. 3	6	L-1	yes	5	yes	no	03-2016
Lewis County PWSD No. 1	2	L-9	no	5	yes	no	09-1997
Linn-Livingston PWSD No. 3	3	L-3	no	3	yes	no	08-1999
Livingston Co. PWSD No. 2	2	L-3	no	5	no	no	09-2007
Livingston Co. PWSD No. 3	3	L-7	no	3	no	no	05-1991
Macon County PWSD No. 1	7	LT-8 (Age 65)	yes	5	no	no	11-1990
Madison Co. PWSD No. 1	1	L-7	no	3	no	no	07-2002
Monroe Co. PWSD No. 2	5	L-3	no	5	no	no	02-2008
North Central MO Regional Water Commission	4	L-1	no	3	no	no	06-2007
Platte County PWSD No. 4	5	L-7	no	5	no	no	07-2003
Putnam Co. PWSD No. 1	5	L-3	no	3	yes	no	02-2001
Southwest Rural Water Supply District No. 1	2	L-6	no	5	yes	no	03-2019
Stoddard Co. PWSD No. 1	2	L-1	no	5	yes	no	07-2009
Wayne & Butler Co. PWSD No. 4	3	L-7	yes	5	yes	no	05-2009
Road District Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Assistant County County Day of Birthigh No. 40	0	. 7		-			04.0040
Audrain County Special Road District No. 13	2	L-7	no	5	yes	no	01-2013
Cameron Special Road District	2	L-12	yes	5	no	no	11-2000
Cape Special Road District	9	L-6	no	5	no	yes	09-1981
Carl Junction Special Road District	1	L-1	no	5	yes	no	04-2001
Carthage Special Road District	7	L-3	no	3	yes	no	05-2000
Eldorado Springs Special Road District	2	L-1	no	5	no	no	04-1982
Farley Special Road District	2	L-3	yes	3	no	no	07-1999
Festus Special Road District	4	L-6	no	3	no	yes	02-1969
Higginsville Special Road District	1	L-7	no	3	no	no	05-1970
Horseshoe Bend Special Road District No. 1	10	L-1	no	5	yes	no	05-2008
Hudson Township Special Road District	2	LT-10 (Age 65)	yes	5	no	no	04-1990
La Plata Township Special Road District	1	L-1	no	5	yes	no	10-1991
Lexington Special Road District	2	L-1	no	5	yes	no	06-2000
Marshall Special Road District	3	L-7	no	3	yes	no	09-1998
Moberly Special Road District	4	L-3	no	5	yes	no	01-2001

Road District Name:	Employee	Benefit	Rule	Final Average	Employee		Membership
	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Monett Special Road District	2	L-7	no	3	yes	no	05-2014
Neosho Special Road District	6	LT-10 (Age 65)	no	3	no	no	04-1997
Odessa Special Road District	5	L-7	no	3	no	no	09-1999
Osceola Special Road District	1	L-1	no	5	yes	no	03-2002
Parkville Special Road District	0	L-7	no	3	no	no	06-2019
Platte City Special Road District	4	L-6	no	5	no	no	01-1998
Plattsburg Special Road District	1	L-3	no	3	yes	no	02-1991
Richmond Special Road District	1	L-9	no	5	yes	no	03-2001
Slater Special Road District	1	L-7	yes	3	no	no	11-2006
Ste. Genevieve Special Road District A	3	L-3	no	3	yes	no	07-1990
Union Special Road District	1	L-7	no	5	yes	no	09-1978
Washington Special Road District	0	L-3	yes	3	no	no	05-1974
Weston Special Road District	2	L-3	no	5	yes	no	07-1997
Fire District Name:	Employee	Benefit	Rule	Final Average	Employee		Membership
	Members	Program†	of 80	Salary Period	Contrib.	Refund	Date
Antonia Fire Protection District (Legacy)	0		no		no	no	01-2019
Antonia Fire Protection District	25	L-6	no	3	no	no	07-2012
Battlefield Fire Protection District	36	L-7	no	5	yes	no	01-2013
Boles Fire Protection District	27	L-1	no	3	yes	no	05-2018
Boone County Fire Protection District	26	L-6	no	5	no	no	02-2012
Butler County Fire Protection District	5	LT-8 (Age 65)	no	3	yes	no	11-1994
Central Crossing Fire Protection District	1	L-6	no	5	yes	no	01-2014
Central Jackson County Fire District No. 5	133	L-6	no	3	no	yes	09-1973
Desoto Rural Fire Protection District	16	L-12	no	3	no	no	04-2014
Ebenezer Fire Protection District	15	L-1	no	5	yes	no	01-2013
Fair Grove Fire Protection District	8	L-3	no	3	yes	no	06-2016
Fort Osage Fire Protection District	31	L-6	no	3	no	yes	04-1983
Goldman Fire Protection District	6	L-3	no	5	no	no	01-2012
Gravois Fire Protection District	12	L-3	yes	5	yes	no	11-2017
Hematite Fire Protection District	4	L-1	no	3	no	no	04-2017
Hillsboro Fire Protection District	10	L-7	yes	5	no	no	02-2011
Holt Community Fire Protection District	7	L-7	yes	5	yes	no	01-2019
Johnson County Fire Protection District	2	LT-8 (Age 65)	yes	3	no	no	01-2015
Johnson Co Fire Protection District No. 2	4	L-7	yes	5	no	no	05-2006
Kearney Fire & Rescue Protection District	28	L-7	yes	3	no	no	01-1997
Lake Ozark Fire Protection District	39	L-6	no	5	no	no	10-2016
Lawson Fire & Rescue Protection District	10	L-3	no	5	yes	no	05-2008
Little Dixie Fire Protection District	1	L-1	yes	3	no	no	01-2003
Logan-Rogersville Fire Protection District	25	L-1	no	3	yes	no	06-2016
Lotawana Fire Protection District	3	L-3	yes	3	no	no	01-2009
Mid-County Fire Protection District	19	L-6	no	5	yes	no	05-2010
Nixa Fire Protection District	35	L-12	no	3	no	no	01-2005
Odessa Fire & Rescue Protection District	3	L-6	no	5	no	no	01-2010

†See Summary of Plan Provisions for benefit program description.

STATISTICAL SECTION

Fire District Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Osage Beach Fire Protection District	29	L-6	no	5	no	no	07-2006
Ozark Fire Protection District	30	L-12	no	5	no	no	02-2009
Pleasant Hill Fire Protection District	13	L-3	no	3	no	no	11-2008
Prairie Township Fire Protection District	14	L-3	no	3	no	no	01-2009
Raytown Fire Protection District	41	L-6	no	5	yes	no	09-1992
Redings Mill Fire Protection District	19	L-3	no	5	yes	no	01-2007
Rocky Mount Fire Protection District	3	L-7	no	5	yes	no	08-2007
Savannah Fire Protection District	1	L-1	yes	5	yes	no	06-2006
Smithville Fire Protection District	14	L-7	no	5	no	no	04-2004
Sni Valley Fire Protection District	30	L-11	no	3	no	no	07-1986
South Metro Fire Protection District	48	L-11	no	3	no	no	11-1981
Southern Platte Fire Protection District	36	L-6	no	5	yes	no	08-2010
Southern Stone County Fire Protection District	12	L-7	no	5	yes	no	01-2013
St. James Fire Protection District	0	L-12	no	3	yes	no	05-2007
Strafford Fire Protection District	17	L-1	no	5	yes	no	10-2009
Sunrise Beach Fire Protection District	20	L-1	no	5	yes	no	01-2017
Union Fire Protection District	15	L-6	no	3	no	no	11-2006
Warrenton Fire Protection District	10	L-1	no	5	yes	no	12-2017
Waynesville Rural Fire Protection District	14	L-7	no	3	no	no	07-2008
West Overland EMS & Fire Protection District	19	L-6	no	5	yes	no	04-2016
West Peculiar Fire Protection District	7	L-6	no	5	no	no	09-2006
Western Taney County Fire Protection District	9	L-6	no	5	yes	no	07-1993
\ \(\lambda \)!	4 4	1 7		_			
Willard Fire Protection District	14	L-7	no	5	yes	no	09-2013
Emergency Services District Name:	Employee Members	L-7 Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.		09-2013 Membership Date
	Employee	Benefit	Rule	Final Average	Employee	Non-Contrib.	Membership
Emergency Services District Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Emergency Services District Name: Adair County Ambulance District	Employee Members 29	Benefit Program† L-6	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date 02-2009
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District	Employee Members 29 18	Benefit Program† L-6 L-6	Rule of 80 no yes	Final Average Salary Period 5 5	Employee Contrib. yes no	Non-Contrib. Refund no	Membership Date 02-2009 03-2010
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services	Employee Members 29 18 10	Benefit Program† L-6 L-6 L-7	Rule of 80 no yes yes	Final Average Salary Period 5 5 5	Employee Contrib. yes no no	Non-Contrib. Refund no no	Membership Date 02-2009 03-2010 01-2011
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services	Employee Members 29 18 10 18	Benefit Program† L-6 L-6 L-7 L-12	Rule of 80 no yes yes yes	Final Average Salary Period 5 5 5 5	Employee Contrib. yes no no yes	Non-Contrib. Refund no no no	Membership Date 02-2009 03-2010 01-2011 01-2013
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District	Employee Members 29 18 10 18 14	Benefit Program† L-6 L-6 L-7 L-12 L-3	Rule of 80 no yes yes yes no	Final Average Salary Period 5 5 5 5 5	Employee Contrib. yes no no yes yes	Non-Contrib. Refund no no no no no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District	Employee Members 29 18 10 18 14 14	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3	Rule of 80 no yes yes yes no yes	Final Average Salary Period 5 5 5 5 5 5 5 5	Employee Contrib. yes no no yes yes no	Non-Contrib. Refund no no no no no no no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District	Employee Members 29 18 10 18 14 14 15	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3	Rule of 80 no yes yes yes no yes no	Final Average Salary Period 5 5 5 5 5 5 5 5 5	Employee Contrib. yes no no yes yes no no	Non-Contrib. Refund no no no no no no no no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District	Employee Members 29 18 10 18 14 14 15 6	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-3	Rule of 80 no yes yes yes no yes no no no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 5 5	Employee Contrib. yes no no yes yes no no yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District	Employee Members 29 18 10 18 14 14 15 6 34	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-3 L-1 L-9	Rule of 80 no yes yes yes no yes no no yes	Final Average Salary Period 5 5 5 5 5 5 5 3	Employee Contrib. yes no no yes yes no no yes no no	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014 01-1996
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District	Employee Members 29 18 10 18 14 14 15 6 34 11	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-3 L-3 L-3 L-1 L-9 L-3	Rule of 80 no yes yes yes no yes no yes yes yes	Final Average Salary Period 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Employee Contrib. yes no no yes yes no no yes no yes no yes yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District	Employee Members 29 18 10 18 14 14 15 6 34 11 7	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-1 L-9 L-3 L-1	Rule of 80 no yes yes yes no yes no yes no yes no yes no yes yes no yes yes no yes yes no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Employee Contrib. yes no no yes yes no no yes yes yes yes yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District Carroll County Ambulance District Cass County Emergency Services	Employee Members 29 18 10 18 14 14 15 6 34 11 7 1	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-1 L-9 L-3 L-1	Rule of 80 no yes yes yes no yes no yes yes no no yes yes no no yes yes no no no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 3 5 3 5 3	Employee Contrib. yes no no yes yes no no yes yes no yes no yes no	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017 05-2013
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District Cars County Emergency Services Chariton County Ambulance District	Employee Members 29 18 10 18 14 14 15 6 34 11 7 1 9	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-3 L-1 L-9 L-3 L-1 L-9	Rule of 80 no yes yes yes no no yes yes no no yes no no yes no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Employee Contrib. yes no no yes yes no no yes no yes no yes no yes yes no yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017 05-2013 01-2013
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District Carroll County Ambulance District Cass County Emergency Services Chariton County Ambulance District Chariton County Enhanced 911	Employee Members 29 18 10 18 14 14 15 6 34 11 7 1 9 7	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-1 L-9 L-3 L-1 L-9 L-3 L-1 L-6 L-1 L-6	Rule of 80 no yes yes yes no yes no yes yes no no yes yes no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 3 5 3 5 3 5 3	Employee Contrib. yes no no yes yes no no yes yes no yes yes yes yes yes yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017 05-2013 01-2013
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District Cars County Emergency Services Chariton County Ambulance District Chariton County Ambulance District Chariton County Ambulance District Chariton County Ambulance District	Employee Members 29 18 10 18 14 14 15 6 34 11 7 1 9 7	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-1 L-9 L-3 L-1 L-9 L-3 L-1 L-6 L-1 L-6 L-1 L-3 LT-4 (Age 65)	Rule of 80 no yes yes yes no yes yes no no yes yes no no no no no no no no no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 3 5 3 5 3 5 5 5 5 5	Employee Contrib. yes no no yes yes no no yes no yes yes no yes yes yes yes yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017 05-2013 01-2013 05-2004 07-2013
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District Cars County Emergency Services Chariton County Ambulance District Chariton County Enhanced 911 Christian County Emergency Services	Employee Members 29 18 10 18 14 14 15 6 34 11 7 1 9 7 1 25	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-1 L-9 L-3 L-1 L-9 L-3 L-1 L-6 L-1 L-6 L-1 L-3 LT-4 (Age 65) L-6	Rule of 80 no yes yes no yes no yes yes no	Final Average Salary Period 5 5 5 5 5 5 5 5 5 3 5 3 5 3 5 3 5 3	Employee Contrib. yes no no yes yes no no yes no yes yes no yes yes no yes yes no	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017 05-2013 01-2013 05-2004 07-2013 04-2011
Emergency Services District Name: Adair County Ambulance District Audrain Ambulance District Audrain County Emergency Services Barry County E-911 Emergency Services Barry-Lawrence County Ambulance District Barton County Ambulance District Big River Ambulance District Caldwell County Ambulance District Callaway County Ambulance District Cameron Ambulance District Carroll County Ambulance District Carsoll County Ambulance District Cass County Emergency Services Chariton County Ambulance District Chariton County Ambulance District Christian County Emergency Services Clearwater Ambulance District	Employee Members 29 18 10 18 14 14 15 6 34 11 7 1 9 7 1 25 10 5	Benefit Program† L-6 L-6 L-7 L-12 L-3 L-3 L-3 L-3 L-1 L-9 L-3 L-1 L-9 L-3 L-1 L-6 L-1 L-6 L-1 L-3 LT-4 (Age 65) L-6 L-3	Rule of 80 no yes yes yes no yes no no yes yes no	Final Average Salary Period 5 5 5 5 5 5 5 5 3 5 3 5 3 5 3 3 5 3 3	Employee Contrib. yes no no yes yes	Non-Contrib. Refund no	Membership Date 02-2009 03-2010 01-2011 01-2013 01-2014 10-1998 01-2011 01-2014 01-1996 01-2010 05-2017 05-2013 01-2013 05-2004 07-2013 04-2011 11-2017

Emergency Services District Name:	Employee Members	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
East Central Dispatch Center	24	L-6	no	3	yes	no	07-2013
Gasconade County 911 Board	11	L-1	no	5	no	no	07-2003
Grand River Regional Ambulance District	16	L-1	no	5	yes	no	11-2014
Henry County Emergency 911 Center	13	L-1	no	5	yes	no	10-2015
Hermann Area Ambulance District	8	L-3	no	5	no	no	10-2009
Howell County 911 Emergency Services	11	L-6	yes	5	no	no	03-2009
Iron County E-911 Communications	1	L-3	no	3	yes	no	06-2012
Iron County Ambulance District	24	L-1	no	5	yes	no	05-2019
Jefferson County 911 Dispatch District	34	L-7	yes	3	no	no	01-2009
Joachim-Plattin Ambulance District	41	L-6	no	3	no	no	01-2013
Johnson County Central Dispatch E-911	24	L-6	no	5	no	no	01-2016
Johnson County Ambulance District	36	L-7	yes	5	yes	no	01-2004
Lewis County Emergency E-911	0	L-1	no	5	no	no	03-2003
Lincoln County Ambulance District	40	LT-8 (Age 65)	no	3	no	no	02-1990
Linn County Ambulance District	14	L-1	no	5	yes	no	01-2010
Madison County Ambulance District	12	L-3	no	5	yes	no	01-2014
Marion County E-911 Communications	15	LT-5 (Age 65)	no	5	no	no	01-1997
McDonald County 911	16	L-1	no	5	yes	no	03-2018
Meramec Ambulance District	27	L-1	yes	5	yes	no	03-2019
Monroe County Ambulance District	5	L-1	no	5	no	no	08-2012
Montgomery County Ambulance District	15	L-6	yes	5	yes	no	04-1994
Nodaway County Ambulance District	22	L-3	no	5	yes	no	05-2016
North Scott County Ambulance District	11	L-1	no	5	yes	no	11-2012
Northland Regional Ambulance District	30	LT-8 (Age 65)	no	5	yes	no	07-2012
Pike County 911	0	L-1	no	3	yes	no	06-2019
Pulaski County 911 Communications	12	L-12	yes	3	no	no	03-2008
Ralls County 911 District	5	L-3	no	5	no	no	06-2001
Randolph County Ambulance District	22	L-3	no	5	no	no	01-2008
Ray County 911 Emergency Services Board	9	L-12	no	3	no	no	09-1998
Ray County Ambulance District	19	L-7	no	3	yes	no	04-1997
South Scott County Ambulance District	20	LT-14 (Age 65)	yes	5	yes	no	07-2000
St. Francois County Ambulance District	59	LT-8 (Age 65)	yes	5	yes	no	01-2009
Ste. Genevieve County Ambulance District	19	L-12	no	5	yes	no	01-2012
Stoddard County Ambulance	29	L-6	yes	3	yes	no	07-2001
Stone County Emergency Services	12	L-7	no	3	yes	no	04-2002
Sullivan County E-911	6	L-3	no	5	yes	no	04-2009
Taney County Ambulance District	59	L-6	yes	3	yes	no	01-1987
Texas County Emergency Services	8	L-12	yes	3	no	no	08-2015
Tri-County Ambulance Services	4	L-3	no	5	no	no	02-1996
Valle Ambulance District	24	L-7	no	5	no	no	11-2015
Webster County E-911 Services	13	LT-8 (Age 65)	no	5	no	no	04-2006
West Central Dispatch Center	13	L-7	no	5	yes	no	02-2017

†See Summary of Plan Provisions for benefit program description.
*Charter Member

Library District Name:	Employee Members		Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Adair County Public Library	4	L-3	no	3	yes	no	01-1992
Brookfield Carnegie Library District	1	L-1	no	3	no	no	06-1989
Camden County Library	16	L-7	no	3	no	no	01-1978
Carthage Public Library	6	L-1	no	5	yes	no	08-2001
Cass County Public Library	30	L-6	no	5	no	no	05-1988
Cedar County Library	3	L-3	no	3	yes	no	05-1971
Christian County Library	17	L-6	no	5	no	no	06-1969
Daniel Boone Regional Library	87	L-3	no	5	no	no	04-2019
Douglas County Public Library	2	L-1	no	5	yes	no	05-2013
Ferguson Municipal Library	6	L-1	no	5	yes	no	07-1969
Gentry County Library	2	L-3	no	5	no	no	06-2018
Henry County Library	7	L-3	no	3	yes	no	01-2006
Hickory County Library	1	L-1	no	3	yes	no	05-1971
Jefferson County Public Library	33	L-3	no	3	yes	no	01-1992
Lebanon-Laclede County Library	10	L-9	no	5	no	no	01-1970
Little Dixie Regional Libraries	11	L-7	no	5	no	no	06-1996
Livingston County Library	10	L-1	no	5	no	no	02-2006
Maplewood Library	5	L-6	no	3	yes	no	04-1970
Maryville Public Library	3	L-7	yes	5	no	no	01-1973
Mexico-Audrain County Library	8	L-3	no	5	no	no	08-1984
* Mid-Continent Public Library	380	L-6	yes	3	no	yes	04-1968
Mississippi County Public Library	4	L-6	yes	3	yes	no	02-1969
Missouri River Regional Library	36	L-7	no	3	yes	no	01-2003
Neosho/Newton County Library	4	L-3	yes	5	no	no	01-2005
Nevada Public Library	2	L-6	no	3	no	no	04-1969
New Madrid County Library	4	L-7	no	3	yes	no	04-1968
Ozark Regional Library	4	L-6	no	3	no	no	01-2016
Polk County Library	8	L-1	no	3	no	no	05-1971
Poplar Bluff Public Library	8	L-7	no	5	yes	no	01-2013
Pulaski County Library	9	L-3	no	5	no	no	01-1970
Ray County Library	5	LT-10 (Age 65)	no	5	no	no	07-1970
Riverside Regional Library	10	L-12	no	3	no	no	08-1968
Rock Hill Public Library	2	L-3	no	3	yes	no	01-1989
Rolla Free Public Library	2	L-6	no	3	yes	no	05-1989
Rolling Hills Consolidated Library	20	L-1	no	5	no	no	07-2003
Salem Public Library	3	L-7	no	3	yes	no	07-1993
Scenic Regional Library	30	L-6	no	5	yes	no	01-1971
Sedalia Public Library	6	L-6	no	3	no	no	07-1987
Springfield-Greene Co Library	108	L-7	no	3	no	yes	07-1969
St Charles City-County Library	95	L-7	no	3	no	yes	08-1973
St Joseph Public Library	28	L-1	no	5	no	no	09-2013
Stone County Library	5	L-1	no	5	yes	no	02-1970
Texas County Library	1	L-6	no	3	yes	no	08-1982
Trails Regional Library	31	L-7	no	3	no	no	10-1970
Washington County Library	5	L-1	no	5	no	no	01-2017
Webster County Library District	6	L-3	yes	3	no	no	01-2007

STATISTICAL SECTION

	nployee embers	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Webster Groves Municipal Library	10	L-7	no	5	yes	no	10-2013
Wright County Library	1	L-1	no	5	no	no	05-1982
	nployee embers	Benefit Program†	Rule of 80	Final Average Salary Period	Employee Contrib.	Non-Contrib. Refund	Membership Date
Audrain County Soil & Water Conservation District	3	L-7	no	3	no	no	11-2018
Benton County Soil & Water Conservation District	3	L-7	no	3	no	no	01-2019
Callaway Co. Soil & Water Conservation District	2	L-7	no	3	no	no	01-2019
Cedar County Soil & Water Conservation District	2	L-7	no	3	no	no	04-2019
Cole County Soil & Water Conservation District	3	L-7	no	3	no	no	10-2018
Dade County Soil & Water Conservation District	2	L-7	no	3	no	no	01-2019
Dekalb County Soil & Water Conservation District	2	L-7	no	3	no	no	04-2019
Franklin County Soil & Water Conservation District	3	L-7	no	3	no	no	01-2019
Gasconade Co. Soil & Water Conservation District	2	L-7	no	3	no	no	04-2019
Henry County Soil & Water Conservation District	2	L-7	no	3	no	no	10-2018
Holt County Soil & Water Conservation District	3	L-7	no	3	no	no	01-2019
Howell County Soil & Water Conservation District	2	L-7	no	3	no	no	04-2019
Jefferson Co. Soil & Water Conservation District	1	L-7	no	3	no	no	01-2019
Lincoln County Soil & Water Conservation District	2	L-7	no	3	no	no	01-2019
Miller County Soil & Water Conservation District	2	L-7	no	3	no	no	04-2019
Monroe County Soil & Water Conservation District	3	L-7	no	3	no	no	04-2019
Morgan County Soil & Water Conservation District	3	L-7	no	3	no	no	04-2019
Osage County Soil & Water Conservation District	3	L-7	no	3	no	no	04-2019
Pettis County Soil & Water Conservation District	3	L-7	no	3	no	no	01-2019
Phelps County Soil & Water Conservation District	2	L-7	no	3	no	no	04-2019
Randolph Co. Soil & Water Conservation District	3	L-7	no	3	no	no	01-2019
Ray County Soil & Water Conservation District	3	L-7	no	3	no	no	01-2019
Scotland Co. Soil & Water Conservation District	4	L-7	no	3	no	no	01-2019
Shelby County Soil & Water Conservation District	2	L-7	no	3	no	no	01-2019
St Clair County Soil & Water Conservation District	2	L-7	no	3	no	no	01-2019
Ste Genevieve Co. Soil & Water Conservation Dist	. 2	L-7	no	3	no	no	01-2019
Stone County Soil & Water Conservation District	2	L-7	no	3	no	no	01-2019
Texas County Soil & Water Conservation District	3	L-7	no	3	no	no	04-2019

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