

Comprehensive Annual Financial Report

for the fiscal year ended June 30, 2016

Since
1946

A 70-Year
Tradition
of Reliable
Retirement



PUBLIC SCHOOL & EDUCATION EMPLOYEE
RETIREMENT SYSTEMS OF MISSOURI

Comprehensive Annual Financial Report

for the fiscal year ended June 30, 2016

M. Steve Yoakum
Executive Director

Prepared by:
PSRS/PEERS Staff
PO Box 268
3210 W. Truman Blvd.
Jefferson City, MO
65102-0268
(573) 634-5290 or
(800) 392-6848

www.psr-peers.org

Since
1946

A 70-Year
Tradition
of Reliable
Retirement



PUBLIC SCHOOL & EDUCATION EMPLOYEE
RETIREMENT SYSTEMS OF MISSOURI

TABLE OF CONTENTS

Mission Statement.....	4
------------------------	---

INTRODUCTORY SECTION

Board of Trustees.....	5
Transmittal Letter.....	6
Certificate of Achievement for Excellence in Financial Reporting.....	10
Public Pension Coordinating Council, Public Pension Standards Awards	10
Administrative Organization	11
Professional Services	12

FINANCIAL SECTION

Independent Auditors' Report from Williams Keepers, LLC	13
Management's Discussion and Analysis	15
Basic Financial Statements.....	21
Statements of Fiduciary Net Position	21
Statements of Changes in Fiduciary Net Position.....	22
Notes to the Financial Statements.....	23
Required Supplementary Information	45
Schedules of Changes in the Employers' Net Pension Liability.....	45
Schedules of Employers' Net Pension Liability.....	46
Schedules of Employer Contributions.....	47
Schedules of Investment Returns	47
Notes to the Schedules of Required Supplementary Information	48
Staff Retiree Health Plan - Defined Benefit OPEB Plan	50
Schedules of Administrative Expenses.....	51
Schedules of Investment Expenses	52
Schedules of Professional Services.....	52

INVESTMENT SECTION

Letter from Willis Towers Watson	53
Letter from the Chief Investment Officer	54
Investment Policy Summary	58
Total Fund Review	63
Public Risk Assets Summary.....	68
U.S. Public Equity Program Summary	70
Alpha Overlay Program Summary	73
Non-U.S. Public Equity Program Summary	75
Public Credit Program Summary.....	78
Hedged Assets Program Summary	80
Safe Assets Summary	83
Private Risk Assets Summary.....	86
Private Equity Program Summary	88
Private Credit Program Summary.....	91
Private Real Estate Program Summary.....	93
U.S. Public Equity Broker Commissions Reports	96
Non-U.S. Public Equity Broker Commission Reports	96
Investment Summary	97
Investment Expenses	98

ACTUARIAL SECTION

Certification of Actuarial Results, PricewaterhouseCoopers LLP 99

Schedule of Funding Progress..... 101

Required Contribution Rates and Amortizations of Unfunded Liability..... 102

Reconciliation of Unfunded Actuarial Accrued Liability..... 103

Schedules of Active Member Valuation Data 104

Solvency Tests..... 105

Schedules of Retirees and Beneficiaries Added to and Removed from Retirement Rolls 106

PSRS Summary Plan Description..... 107

PEERS Summary Plan Description 109

PSRS and PEERS Summary of Actuarial Assumptions and Methods 112

STATISTICAL SECTION

Statistical Summary..... 119

Summary of Benefit Recipients by Type 120

Schedules of Changes in Fiduciary Net Position, Last 10 Fiscal Years 121

PSRS Summary of Changes in Membership During 2015-2016 122

PEERS Summary of Changes in Membership During 2015-2016..... 123

PSRS 2015-2016 New Service Retirees 124

PEERS 2015-2016 New Service Retirees..... 125

PSRS Schedule of Average Benefit Payments to New Service Retirees..... 126

PEERS Schedule of Average Benefit Payments to New Service Retirees 127

Comparisons of Actuarial Assets and Total Actuarial Liabilities 128

Growth in Membership..... 129

PSRS Schedule of Covered Employees in the Top 10 Employers 130

PEERS Schedule of Covered Employees in the Top 10 Employers..... 132

Mission Statement

The Public School Retirement System of Missouri and the Public Education Employee Retirement System of Missouri (PSRS and PEERS) work in partnership with the member school districts of this state to provide eligible employees and their beneficiaries with a significant source of income based on the employee's length of service and compensation in order to enhance retirement, disability and death benefits received from other sources.

It is the fiduciary responsibility of those charged with the administration of PSRS and PEERS to:

- Effectively collect contributions,
- Prudently invest the assets to obtain optimum returns,
- Equitably provide benefits, and
- Impartially and in accordance with applicable law administer the benefit programs.

The PSRS/PEERS Board of Trustees and staff are committed to providing services to the members and beneficiaries professionally, promptly, courteously and efficiently.

Mission Statement Principles

- We will conduct the business of the Retirement Systems in accordance with the mission statement.
- We will act as fiduciaries in the management of all funds for the exclusive benefit of our members.
- We will adhere to our investment policy to ensure the highest possible investment return consistent with the prudent investment of plan assets.
- We will have as our goal the replacement of 80% of a member's final average salary after a 30-year career through the combination of income from public pensions and, when applicable, the federal Social Security system.
- We will have as our goal the retention of purchasing power of the initial retirement benefit through the retirement years.
- We will maintain an independent retirement system that retains the power of the trustees to set actuarial assumptions, appoint consultants, employ staff, establish a budget and conduct all business of the Retirement Systems.
- We will prepare and distribute an annual financial report that adheres to U.S. generally accepted accounting principles.
- We will provide prompt, courteous and accurate service to our members.
- We will provide clear and complete information to the members and the districts through the use of a summary plan document, newsletters, an annual member account statement and any other documents deemed necessary.
- We will adhere to the highest standards of ethical conduct.

A tradition of dedicated service to our members.

This year, our teacher retirement system, the Public School Retirement System of Missouri (PSRS), proudly marks its 70th anniversary serving members. As we celebrate this achievement, we reflect on the many ways both PSRS and the Public Education Employee Retirement System (PEERS) have changed over the years, and how our dedication to providing outstanding service and retirement security has remained constant.

Since
1946



Introductory Section

Board of Trustees.....	5
Transmittal Letter.....	6
Certificate of Achievement for Excellence in Financial Reporting.....	10
Public Pension Coordinating Council, Public Pension Standards Awards	10
Administrative Organization	11
Professional Services	12

Board of Trustees

As of June 30, 2016



Dr. Aaron Zalis
Chair
Elected PSRS
Member



Jason Hoffman
Vice Chair
Elected PEERS
Member



Yvonne Heath
Elected PSRS
Member



Wayne Wheeler
Appointed Retired
Member



Scott Hunt
Appointed
Member



Jason Steliga
Elected PSRS
Member

NOTE: As of June 30, 2016, one appointed Board position was vacant.

Transmittal Letter



PUBLIC SCHOOL & EDUCATION EMPLOYEE
RETIREMENT SYSTEMS OF MISSOURI

December 1, 2016

To the Board of Trustees and Members of the Retirement Systems:

We are pleased to present the *Comprehensive Annual Financial Report (CAFR)* of the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS) for the fiscal year ended June 30, 2016. *A 70-year Tradition of Reliable Retirement...* this year PSRS proudly marks its 70th anniversary of serving members. As we celebrate this achievement, we reflect on the many ways both PSRS and PEERS have changed over the years, and how our dedication to providing outstanding service and retirement security has remained constant.

In addition to providing information to our Board of Trustees and members concerning the financial condition of the Systems, this report also meets our reporting requirements under Sections 169.020. (4).16 and 169.450(4).11 of the Revised Statutes of Missouri (RSMo). Printed copies are available to the public upon request and the complete report is also posted on our website, www.psr-peers.org.

This letter provides a brief overview of the contents of the CAFR. We encourage you to read the Management's Discussion and Analysis on pages 15 to 20 for a more detailed analysis of our financial position for the fiscal year.

Report Contents and Structure

Responsibility for the preparation, accuracy and completeness of this report, including all disclosures, rests with the management staff of PSRS/PEERS (the Systems). The Systems' financial statements are prepared in accordance with U.S. generally accepted accounting principles (GAAP) within the guidelines established by the Governmental Accounting Standards Board (GASB). To the best of our knowledge, the enclosed data is accurate in all material respects and fairly presents our financial position and operating results.

The management of the Systems is responsible for internal accounting controls, which are designed to provide reasonable but not absolute assurance for the safeguarding of assets and the reliability of financial records. The cost of internal controls should not exceed the benefits to be derived. The objective of internal controls is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements. The Systems employ two internal auditors who perform operational reviews to ensure that the internal controls are functioning effectively. We believe the internal controls in place are adequate to meet the purpose for which they were intended.

Our independent external auditors, selected by the Board of Trustees, have conducted an audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit and the financial statements and related footnotes are presented on pages 13 to 52 of this report.

Location 3210 W. Truman Blvd. / Jefferson City, MO 65109 **Mail** P.O. Box 268 / Jefferson City, MO 65102 **Phone** (573) 634-5290
Toll Free (800) 392-6848 **Email** psrspeers@psrspeers.org **Member Services FAX** (573) 634-7934 **Employer Services FAX** (573) 634-7911

Overview of the Retirement Systems

The Public School Retirement System of Missouri (PSRS), a cost-sharing multiple employer retirement system, was established in 1946 by an act of the Missouri legislature to provide certificated public school employees and their families with a significant and stable source of retirement income, disability and survivor benefits. The majority of PSRS members do not contribute to Social Security.

The Non-Teacher School Employee Retirement System of Missouri (NTRS), also a cost-sharing multiple employer retirement system, was established in 1965 by an act of the Missouri legislature to build a plan similar to PSRS, but for non-certificated public school personnel. The name of the non-teacher system was changed to the Public Education Employee Retirement System of Missouri (PEERS) in August 2005 to more positively represent the members of the System. Members of PEERS contribute to Social Security.

PSRS and PEERS are governed jointly by a seven-member Board of Trustees, composed of three elected PSRS members, one elected PEERS member and three members appointed by the governor.

Unlike most public pension systems, the members of PSRS and PEERS share equally in funding the contributions to the Retirement Systems. This funding mechanism has kept the employer contributions lower than many public plans; however, the employee contributions are substantially higher than many similar public plans.

The combined Systems serve approximately 260,000 total members in 535 districts and other employers. In excess of \$2.6 billion is paid annually to over 85,000 service retirees and beneficiary recipients. At June 30, 2016, PSRS/PEERS had a market value of invested assets of approximately \$38.1 billion, making it larger than all other retirement systems in the state of Missouri combined.

Funding Status and Valuation Results

Consistent with industry best practices and the Board of Trustees' fiduciary duty, the Systems conducted the following studies during the current fiscal year: an actuarial audit, actuarial experience study, asset/liability study and a discount rate study. The results of each of the studies are detailed throughout the financial, investment and actuarial sections of the CAFR. A brief description of what each study entails is included below. The Board of Trustees' revised the Actuarial Funding Policies for the Systems at their June 14, 2016 Board meeting. The revisions incorporate the recommendations from each of the above studies conducted during the fiscal year. The revisions are effective with the June 30, 2016 valuations. All of the study results indicated two significant themes facing pension plans across the nation: member longevity has increased and sustained low interest rates have led to lower future expected investment returns. As a result, the most significant revisions to the Funding Policies are to assumed mortality rates, assumed total payroll growth, the assumed investment rate of return and cost-of-living adjustments. The Systems' funding objective continues to be to achieve a funded ratio of 100% over a closed 30-year period. For this purpose, funded ratio is defined as the actuarial value of assets divided by the actuarial accrued liability determined under the entry age normal cost method and the actuarial assumptions adopted by the Board of Trustees.

The Systems are required to perform an actuarial audit at least every ten years. An actuarial audit involves engaging the services of an outside independent actuary (reviewing actuary) to scrutinize the work of the Systems retained independent actuary. The actuarial audit results indicated the valuation provided a fair and reasonable assessment of the financial condition of the Systems.

PricewaterhouseCoopers (PwC), the Systems' retained actuary, performed an actuarial experience study for PSRS and PEERS during the current year. An actuarial experience study reviews the differences between a plan's assumed and actual experience over multiple years (typically three to five), with the

Transmittal Letter, continued

goal of examining the trends related to actual experience and recommending changes to assumptions, if needed. The current year studies compared actual experience over the previous five years to the actuarial assumptions utilized over the same time period. In some cases, the studies reviewed ten years of prior actual experience to ensure the trends of the past five years were not an anomaly. The Systems perform an actuarial experience at least every five years.

An asset/liability study models and projects the plans future assets and liabilities under various scenarios. However, an asset/liability study differs from projections in that it focuses more on the risks associated with the plans' asset allocation and investment performance. An asset/liability study is often used for examining changes to asset allocations or testing potential approaches to manage investment risks. A discount rate study is the process for establishing and reviewing investment return assumptions that consider various financial, economic, and market factors, and is based on a very long-term view, typically 30 years. The asset/liability study and discount rate study are conducted at least every five years in conjunction with the actuarial experience studies. More frequent studies are conducted if there is a significant change in assets or liabilities. Willis Towers Watson performed the asset/liability study and the discount rate study.

As of June 30, 2016, PSRS was 84.8% pre-funded, while PEERS was 86.4% pre-funded. PSRS showed a slight increase in funding from the June 30, 2015 funded percentage of 83.9% while PEERS showed a slight decrease from the June 30, 2015 funded percentage of 86.8%. The changes in funded status are direct results of the revisions to the Actuarial Funding Policies made during the current year as well as investment results. Additional information on actuarial assumptions and funding can be found in the actuarial section of this report. Based upon the June 30, 2016 valuations and overall financial projections, the Board of Trustees set the fiscal year 2018 contribution rates at the fiscal year 2017 level for both members and employers.

Investment Activities

The Systems earned an investment return of 1.8% (1.6% net of all investment expenses and fees) for the fiscal year ended June 30, 2016. The total plan, net of all investment expenses and fees, was marginally below the total plan policy benchmark of 1.8% and fell short of the long-term objective (actuarial assumption) of 8.0%. However, over long periods of time, the Systems continue to produce investment returns that exceed the Systems' objective. The annualized investment return for the Systems over the last five years is 7.4% (7.2% net of all investment expenses and fees), and 8.2% (8.1% net of all investment expenses and fees) over the last 30 years. As a result of the asset/liability and discount rate studies performed during the current year, the assumed investment rate of return was lowered to 7.75%, effective with the June 30, 2016 actuarial valuations and for investment performance measurement beginning with fiscal year 2017.

The Systems' investment returns were low on an absolute basis, but were in the top quartile of performance on a relative basis. The Systems' investment return for fiscal year 2016 exceeded 75% of the peer group as defined by the Wilshire TUCS universe of public pension plans with assets in excess of \$1 billion. Additionally, the Systems generated the fiscal year 2016 return (and longer-term investment returns) while taking less risk than approximately two-thirds of comparable public funds in the United States.

Detailed information regarding the Systems' investments, including policies and strategies, can be found in the Investment Section of this report beginning on page 53.

Legislative Changes During Fiscal Year 2016

There was no legislation during the 2016 legislative session that directly affected the Systems.

Awards

Public Pension Coordinating Council (PPCC), Public Pension Standards Award

PSRS and PEERS each received the Public Pension Standards Awards in 2016 in recognition of meeting professional standards for plan administration and plan funding as set forth in the Public Pension Standards of the PPCC. These awards are presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to PSRS and PEERS for the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports. To be awarded the Certificate of Achievement, a government unit must publish an easily readable and efficiently organized CAFR whose contents meet or exceed program standards. This report must satisfy both U.S. generally accepted accounting principles, applicable legal requirements and GFOA standards. A Certificate of Achievement is valid for only one year. We believe our current report continues to meet the Certificate of Achievement program requirements and are submitting it to GFOA for consideration again this year.

Professional Services

Certain professional services are provided to the Systems by retained consultants. The required opinion letters from two of those consultants, PricewaterhouseCoopers, LLP, actuaries, and Williams Keepers LLC, independent certified public accountants, are contained elsewhere in this report.

Investment consulting services, as well as investment manager search assistance and investment performance analysis, have been provided by Willis Towers Watson.

Acknowledgements

We would like to express our thanks and gratitude to the Board of Trustees, staff, and consultants who have worked diligently to produce this report and to ensure the successful operation of the Systems.

Respectfully submitted,

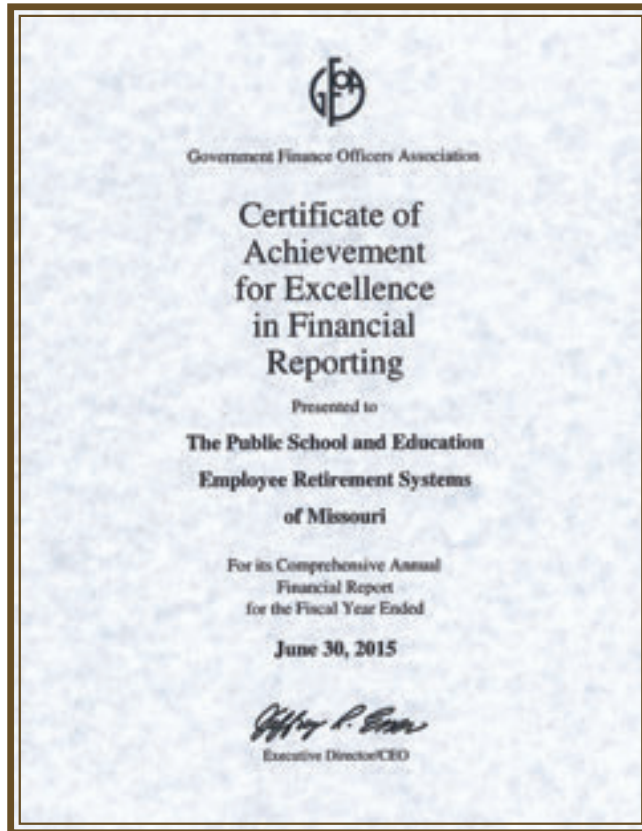


M. Steve Yoakum
Executive Director

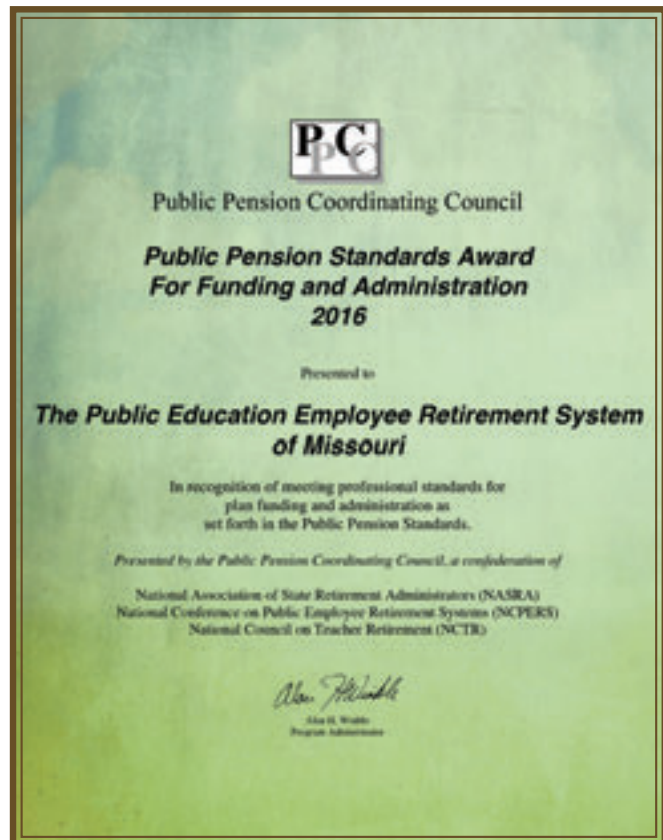
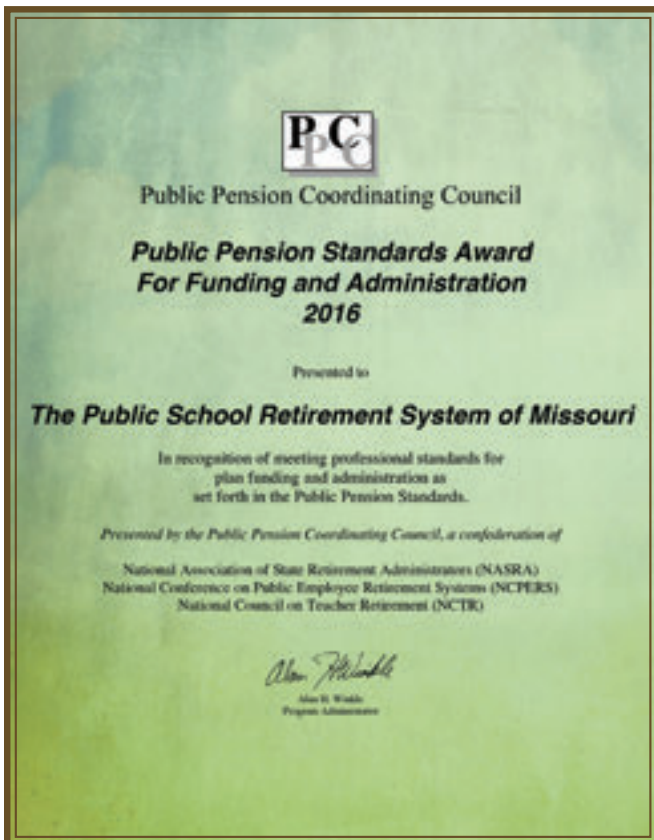


Anita Brand, CPA
Chief Financial Officer

Certificate of Achievement for Excellence in Financial Reporting



Public Pension Coordinating Council Public Pension Standards Awards



Administrative Organization

As of June 30, 2016



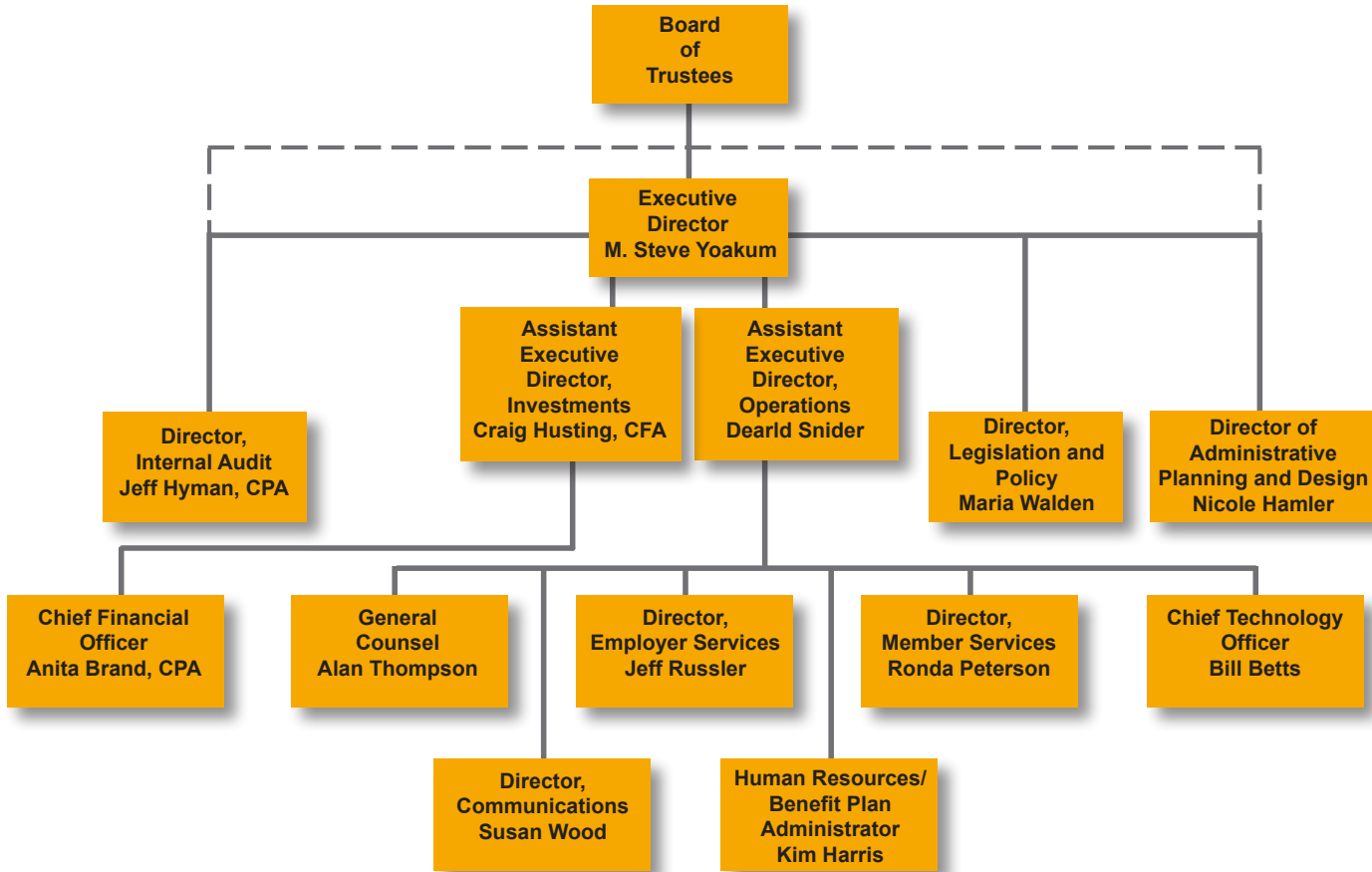
M. Steve Yoakum
Executive Director



Craig Husting, CFA
Assistant Executive
Director, Investments



Dearld Snider
Assistant Executive
Director, Operations



Professional Services

As of June 30, 2016

Actuaries

PricewaterhouseCoopers, LLP

Cindy Fraterrigo, FSA, EA, MAAA
Brandon Robertson, ASA, EA, MAAA
Chicago, Illinois
New York, NY

Auditors

Williams Keepers, LLC

Heidi A. Chick, CPA
Kelly Schwartze, CPA
Columbia, Missouri

Technology Consultants

Analytics 8

Annelise Lynch
Chicago, Illinois

Huber & Associates

James Huber
Jefferson City, Missouri

Nexum

Mike Scher
Chicago, Illinois

Sagitec Solutions, LLC

Paul Eberhart
Roseville, Minnesota

Insurance Consultants

Charlesworth & Associates

Bob Charlesworth
Overland Park, Kansas

The Insurance Group

Jason Swindle
Columbia, Missouri

Other Consultants

CBIZ Human Capital Services

Tammy Washington
St. Louis, Missouri

Cortex

Tom Iannucci
Toronto, Ontario

Legal Counsel

Groom Law Group

David Levine
Washington, D.C.

Haynes Benefits

Andrew Haynes
Lee's Summit, Missouri

Pillsbury, Winthrop, Shaw, Pittman, LLP

Dulcie Brand
Los Angeles, California

Thompson Coburn, LLP

Allen Allred
St. Louis, Missouri

Legislative Consultant

Statehouse Strategies, LLC

James "Jim" Moody
Jefferson City, Missouri

Medical Advisor

Andrew Matera, M.D.

Columbia, Missouri

Investment Management, Custodial and Consulting fees can be found in the Schedule of Investment Expenses on page 98. Schedules of broker commissions can be found on page 96. Additional information on Investment Managers can also be found in the Investment Section of this report.