

A tradition of providing retirement security.

PSRS/PEERS has helped our members meet their financial goals for the past 70 years, providing them with well-deserved, lifetime monthly retirement benefits after a full career of service to Missouri's public school system.

PSRS/PEERS will continue to work to meet economic and political challenges with a strong, well-funded pension plan dedicated to providing lifetime retirement benefits to our members.

Since
1946

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Independent Auditors' Report



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The Board of Trustees of the
Public School and Public Education Employee
Retirement Systems of Missouri

We have audited the accompanying financial statements of the Public School and Public Education Employee Retirement Systems of Missouri (the Systems), which comprise the statements of fiduciary net position as of June 30, 2016, the related statements of changes in fiduciary net position for the year then ended, and the related notes to the financial statements.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Public School and Public Education Employee Retirement Systems of Missouri as of June 30, 2016, and the respective changes in financial position for the year then ended, in conformity with U.S. generally accepted accounting principles.

Independent Auditors' Report, continued

Other Matters

Prior Year Information

The prior year combined total information has been derived from the Systems' 2015 financial statements and, in our report dated October 26, 2015, we expressed unqualified opinions on the respective financial statements of the Systems' net position.

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 15-20, schedules related to the defined benefit plans (schedules of changes in the employers' net pension liability, employers' net pension liability, employer contributions, investment returns, and notes to schedules) on pages 45-49, and schedules related to the defined benefit OPEB plan (schedules of funding progress, employer contributions, and notes to schedules) on page 50 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 audits 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 opinions on the financial statements that collectively comprise the Public School and Public Education Employee Retirement Systems of Missouri basic financial statements. The introductory, investment, actuarial and statistical sections and the additional information presented on pages 51-52 are presented for purposes of additional analysis and are not a required part of the financial statements.

The additional information presented on pages 51-52 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. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with U.S. generally accepted auditing standards. In our opinion, the additional information presented on pages 51-52 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 and, accordingly, we do not express an opinion or provide any assurance on them.

St. Clair's Keepers LLC

October 20, 2016

Management's Discussion and Analysis

Introduction

This discussion and analysis of the financial position of the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS), collectively referred to as the Systems, provides an overview of the Systems' financial activities for the fiscal year ended June 30, 2016. We encourage you to consider the information presented here in conjunction with additional information presented in the financial statements and required supplementary information.

Financial Highlights

The following highlights are explained in more detail for each System later in this discussion.

- The Systems implemented Governmental Accounting Standards Board (GASB) Statement No. 72, *Fair Value Measurement and Application* during fiscal year 2016. GASB Statement No. 72 addresses accounting and reporting issues related to fair value measurements. The Statement requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques.
- The Board of Trustees adopts actuarial assumptions, each of which individually represents a reasonable long-term estimate of anticipated experience for the Systems, derived from experience studies conducted every fifth year. The most recent comprehensive experience study was completed in June 2016. All economic and demographic assumptions were reviewed and updated, where appropriate, based on the results of the study and effective with the June 30, 2016 valuation. The significant actuarial assumptions are detailed in the notes to the financial statements and the notes to the schedules of required supplementary information.
- As of June 30, 2016, PSRS' fiduciary net position as a percentage of the total pension liability was 82.2% and the net pension liability approximated \$7.4 billion. PEERS' fiduciary net position as a percentage of the total pension liability was 83.3% and the net pension liability approximated \$802.3 million as of June 30, 2016. The net pension liability is calculated utilizing the market value of assets in accordance with GASB No. 67 for accounting presentation purposes. For funding purposes, investment gains and losses that vary from the assumed rate of return are amortized over five years. As of June 30, 2016, the pre-funded ratios for funding purposes were 84.8% for PSRS and 86.4% for PEERS.
- The funded status of the Systems is measured as the ratio of assets available for benefits to a benefit liability measure for the System. While there are several such measures that could be appropriately used, the benefit liability measure that ties most closely to the Systems' funding policies is the actuarial accrued liability (AAL) computed in accordance with assumptions and methods approved by the Board of Trustees. Using the actuarial value of assets (AVA), a smoothed asset value that recognizes 20% of the total investment gain or loss on the AVA for each of the preceding five years. This is the significant difference between accounting measurements in accordance with GASB No. 67 and funding calculations. As of June 30, 2016, the pre-funded ratios for funding purposes were 84.8% for PSRS and 86.4% for PEERS.
- The Systems conduct a full asset-liability study at least every five years in conjunction with the actuarial experience studies. More frequent studies are conducted if there is a significant change in the assets or liabilities. The key goal of the asset-liability study is the development of an asset allocation that maximizes the likelihood that the investment portfolio assets will, over the long-term planning horizon, fund plan benefits within appropriate risk parameters. The most recent study was completed during the current year.
- 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.
- Fiscal year 2016 proved to be a difficult environment for institutional investors. The Systems' 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.

- Current year investment earnings include securities lending income of \$123.0 million from the settlement of legal proceedings with the Systems' prior custodian. Please refer to additional discussion in Note 9 – *Commitments and Contingencies*.
- The net position of the combined Systems decreased by \$509.8 million. The net position of PSRS decreased by \$533.7 million while the net position of PEERS increased by \$23.9 million.
- Total revenues for fiscal year 2016 were comprised of contribution revenue of \$1.6 billion and investment gains of \$593.5 million, compared to contribution revenue of \$1.56 billion and investment gains of \$1.61 billion for fiscal year 2015.
- Expenses increased 4.8% over the prior year from \$2.6 billion to \$2.7 billion. Retirement benefits and member refunds increased by \$120.0 million from the prior year, while administrative expenses increased by \$2.9 million during the same time period. Administrative expenses include \$0.8 million in additional depreciation expense for the newly implemented pension administration software and additional actuarial expenses for the completion of the actuarial experience studies.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the financial report of the Systems. The financial report consists of: the basic financial statements comprised of the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position, the notes to the basic financial statements, required supplementary information and other supplementary information.

The Statements of Fiduciary Net Position present information on the assets and liabilities of the Systems, with the difference between the two reported as net position. The net position of the Systems reflects the resources available to pay benefits to members when due. Over time, increases and decreases in net position measure whether the Systems' financial position is improving or deteriorating.

The Statements of Changes in Fiduciary Net Position present information detailing the changes in net position

that occurred during the current fiscal year. All changes in net position are reported on an accrual basis. This means that the revenue or expense is recognized as soon as the underlying event giving rise to the change occurs, regardless of when the actual cash is received or paid. Thus, revenues and expenses are reported in this statement for some items that will not result in cash flows until future fiscal periods. For example, contributions due from an employer, even though not yet paid by year end, will be reflected as revenue. Earned vacation accruals will be reflected as an expense, even though they have not been paid to employees.

The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes can be found on pages 23 through 44.

The report also contains required supplementary information in addition to the basic financial statements themselves. The required supplementary information consists of the following schedules and related notes:

- The Schedules of Changes in the Employers' Net Pension Liability include historical trend information about the annual changes of the net pension liability, including assumption changes and variances of assumed experience. These schedules were effective June 30, 2014, under GASB No. 67. Additional years of data will be displayed as they become available.
- The Schedules of Employers' Net Pension Liability include historical trend information about whether each System's net position is increasing or decreasing over time relative to the total pension liability. The schedules provide a long-term, ongoing perspective of the accumulation of assets to pay benefits when due. These schedules were effective June 30, 2014, under GASB No. 67. Additional years of data will be displayed as they become available.
- The Schedules of Employer Contributions present historical trend information about the annual determined contributions of employers and the actual contributions made by employers.
- The Schedules of Investment Returns present historical annual money-weighted rate of returns. These schedules were effective June 30, 2014, under GASB No. 67. Additional years of data will be displayed as they become available.
- The Schedule of Funding Progress includes historical trend information about the actuarially funded status of the defined benefit other post-employment

benefit (OPEB) plan from a long-term, ongoing perspective and the progress made in accumulating assets to pay benefits when due.

- The Schedule of Employer Contributions presents historical trend information about the annual required contributions of the employer and the actual employer contributions made for the defined benefit OPEB plan.
- The Notes to the Schedules of Required Supplementary Information provide additional information that is essential to a full understanding of the data provided in the schedules.

Other supplementary schedules are also included. The Schedules of Administrative Expenses present the overall cost of administering the Systems. The Schedules of Professional Services further detail this category of administrative expense. The Schedules of Investment Expenses show the costs associated with investing the assets of the Systems. These expenses are shown as a reduction of revenue on the Statements of Changes in Fiduciary Net Position.

Financial Analysis of the Public School Retirement System of Missouri (PSRS)

PSRS is a mandatory cost-sharing multiple employer retirement system for full-time certificated employees and certain part-time employees of participating employers. PSRS members were required to contribute 14.5% of their annual covered salary during fiscal year 2016. The employer was required to match that amount. Most PSRS members do not contribute to Social Security, except for employees hired after 1986 who contribute to Medicare only. In some instances, positions may be determined not to be exempt from Social Security contributions. PSRS members required to contribute to Social Security are required to contribute two-thirds of the approved PSRS contribution rate and their employer is required to match the contribution. The members' benefits are further calculated at two-thirds the normal benefit amount.

Public School Retirement System of Missouri Fiduciary Net Position (000's)			
	2016	2015	Change
Cash & investments	\$ 34,857,203	\$ 35,420,157	\$ (562,954)
Receivables	1,725,180	1,694,592	30,588
Other	25,523	26,100	(577)
Total assets	36,607,906	37,140,849	(532,943)
Total liabilities	2,303,936	2,303,169	767
Fiduciary net position	\$ 34,303,970	\$ 34,837,680	\$ (533,710)

Assets

Total assets of PSRS as of June 30, 2016 were \$36.6 billion and were mostly comprised of cash, investments, investment sales receivables and contributions due from employers. Total assets decreased by \$532.9 million or 1.4% from the prior year due to benefit payments exceeding contribution revenue and investment earnings during the year.

Liabilities

Total liabilities as of June 30, 2016, were \$2.3 billion and were mostly comprised of payables from the purchase of investments and obligations under security lending arrangements. Total liabilities increased by \$0.8 million from the prior year. This was due to an increase in investment purchase liabilities that was partially offset by a decrease in accounts payable and obligations under security lending arrangements.

Net Position

PSRS assets exceeded liabilities at June 30, 2016, by \$34.3 billion. This was a decrease of \$533.7 million from the 2015 net position. This decrease was a result of investment earnings that totaled \$533.2 million for the year offset by benefit payments and other expenses which exceeded contribution revenue by \$1.1 billion.

Public School Retirement System of Missouri Changes in Fiduciary Net Position (000's)			
	2016	2015	Change
Additions			
Member contributions	\$ 704,786	\$ 689,187	\$ 15,599
Employer contributions	670,794	656,925	13,869
Investment income	533,174	1,447,144	(913,970)
Other	6	26	(20)
Total additions	1,908,760	2,793,282	(884,522)
Deductions			
Monthly benefits	2,376,276	2,270,259	106,017
Refunds of contributions	54,631	55,938	(1,307)
Administrative expenses	11,548	10,012	1,536
Other	15	2	13
Total deductions	2,442,470	2,336,211	106,259
Change in fiduciary net position	\$ (533,710)	\$ 457,071	\$ (990,781)

Revenues – Additions to Fiduciary Net Position

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through investment earnings. Total contribution revenue for the year

increased by \$29.5 million to \$1.4 billion. This was a 2.2% increase over the prior year. Retirement contributions were calculated at 14.5% of retirement salary for each member during fiscal year 2016. The employer matched this amount. Contribution rates were unchanged from the prior year. In addition to contributions on salary, members may also pay contributions to reinstate previously refunded service or to purchase various types of elective service. Such contributions for the year increased by \$2.3 million. An increased retirement salary base and the addition of new members resulted in the overall increase in contributions.

The net investment gain was \$533.2 million as compared to a net investment gain of \$1.5 billion in 2015. Current year investment earnings include \$113.3 million of securities lending revenue from the settlement of legal proceedings with the System's prior custodian. The current year gains are reflective of a 1.6% net return on the Systems' diversified investment portfolio. All investment related expenses, such as fees paid to investment managers, are reflected as a reduction in revenue and are accounted for in this net figure.

Expenses – Deductions from Fiduciary Net Position

The primary expenses of PSRS include the payment of pension benefits to members and beneficiaries, refunds of contributions to former members, and the cost of administering the System. Total expenses for fiscal year 2016 were \$2.4 billion, an increase of 4.6% over fiscal year 2015.

Benefit expenses increased by \$106.0 million to \$2.38 billion. This was a result of an overall increase of 1,899 monthly benefit recipients from the prior year end. There were no changes to the benefit formula during 2016. Refunds of contributions decreased by \$1.3 million during the current year to a total \$54.6 million.

Administrative expenses increased by \$1.5 million to \$11.5 million. The increase in expenditures is related to the first year of depreciation on the newly implemented pension administration system, as well as software maintenance agreements and actuarial costs for the completion of the five year actuarial experience study. The cost of administrative items was charged 62% to PSRS and 38% to PEERS, unless the expense was determined to be of direct benefit to only one System. In such instance, the allocation of expense was 100% to the benefited System. As always, we will continue to look for ways to streamline costs when prudent.

Financial Analysis of the Public Education Employee Retirement System of Missouri (PEERS)

PEERS is a mandatory cost-sharing multiple employer retirement system for non-certificated employees and certain part-time certificated employees of participating employers. PEERS members were required to contribute 6.86% of their annual covered salary during 2016. The employer was required to match that amount. PEERS members also contribute to Social Security.

	2016	2015	Change
Cash & investments	\$ 4,076,435	\$ 4,053,592	\$ 22,843
Receivables	202,284	193,689	8,595
Total assets	4,278,719	4,247,281	31,438
Total liabilities	271,389	263,871	7,518
Fiduciary net position	\$ 4,007,330	\$ 3,983,410	\$ 23,920

Assets

Total assets of PEERS as of June 30, 2016 were \$4.3 billion and were mostly comprised of cash, investments, investment sales receivables and contributions due from employers. Total assets increased by \$31.4 million or 0.7% from the prior year due to investment gains and contribution revenue exceeding benefit payments and other expenses.

Liabilities

Total liabilities as of June 30, 2016 were \$271.4 million and were mostly comprised of payables from the purchase of investments and obligations under security lending arrangements. Total liabilities increased by \$7.5 million. This was due to an increase of investment purchase liabilities and payables due PSRS, that were partially offset by a decrease in accounts payable and obligations under security lending arrangements.

Net Position

PEERS assets exceeded liabilities at June 30, 2016 by \$4.00 billion. This was up from the 2015 net position of \$3.98 billion by \$23.9 million. This increase was a result of investment earnings that totaled \$60.3 million for the year offset by benefit payments and other expenses which exceeded contribution revenue by \$36.4 million.

Public Education Employee Retirement System of Missouri
Changes in Fiduciary Net Position (000's)

	2016	2015	Change
Additions			
Member contributions	\$ 114,258	\$ 110,444	\$ 3,814
Employer contributions	106,717	103,624	3,093
Investment income	60,317	163,718	(103,401)
Total additions	281,292	377,786	(96,494)
Deductions			
Monthly benefits	230,686	215,242	15,444
Refunds of contributions	19,705	19,828	(123)
Administrative expenses	6,981	5,629	1,352
Total deductions	257,372	240,699	16,673
Change in fiduciary net position	\$ 23,920	\$ 137,087	\$ (113,167)

Revenues – Additions to Fiduciary Net Position

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through investment earnings. Total contribution revenue for the year increased by \$6.9 million to \$221.0 million. Retirement contributions were calculated at 6.86% of retirement salary for each member during fiscal year 2016. The employer matched this amount. Contribution rates were unchanged from the prior year. Overall contribution revenue increased by 3.2%. In addition to contributions on salary, members may also pay contributions to reinstate previously refunded service or to purchase various types of elective service. Such contributions for the year increased by \$0.6 million. The remainder of the increase in total contributions is attributable to a higher retirement salary base and the addition of new members.

The net investment gain was \$60.3 million as compared to a net investment gain of \$163.7 million in 2015. Current year investment earnings include \$9.7 million of securities lending revenue from the settlement of legal proceedings with the System's prior custodian. The current year gains are reflective of a 1.6% net return on the Systems' diversified investment portfolio. All investment related expenses, such as fees paid to investment managers, are reflected as a reduction in revenue and are accounted for in this net figure.

Expenses – Deductions from Fiduciary Net Position

The primary expenses of PEERS include the payment of pension benefits to members and beneficiaries, refunds of contributions to former members, and the cost of administering the System. Total expenses for fiscal year 2016 were \$257.4 million, an increase of 6.9% over fiscal year 2015.

Benefit expenses increased by \$15.4 million to \$230.7 million. This was a result of an overall increase of 1,285 monthly benefit recipients from the prior year end. There were no changes to the benefit formula during 2016. Refunds of contributions of \$19.7 million were consistent with the prior year.

Administrative expenses increased by \$1.4 million. The increase in expenditures is related to the first year of depreciation on the newly implemented pension administration system, as well as software maintenance agreements and actuarial costs for the completion of the five year actuarial experience study. The cost of administrative items was charged 62% to PSRS and 38% to PEERS, unless the expense was determined to be of direct benefit to only one System. In such instance, the allocation of expense was 100% to the benefited System. As always, we will continue to look for ways to streamline costs when prudent.

Summary

The total net returns of 1.6% for PSRS and PEERS was below the long-term objective (actuarial assumption) of 8.0%. Due to the long-term nature of defined benefit pension plans, it is important to look at the financial performance of the Systems over a period of years and not just at this single point in time. Over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objectives. The annualized investment return for the Systems over the last 30 years is 8.1%, net of all fees and expenses. The actuarial assumed rate of return was 8.0% from 1980 through fiscal year 2016. The Board of Trustees adopted a new actuarial assumed rate of return of 7.75% that is effective with the June 30, 2016 actuarial valuations and fiscal year 2017 investment performance measurement.

The Board of Trustees' revised the Actuarial Funding Policies at their June 14, 2016 Board meeting. The revisions incorporate the recommendations from the actuarial experience studies and asset-liability study conducted during the current year. The revisions are effective with the June 30, 2016 valuations. The Systems' funding objective is 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.

The economic factor that is of primary significance to the Systems is the investment rate of return earned in global capital markets. Legislative, demographic, and actuarial assumption changes can also have a significant impact on the funded status of the Systems. All of these factors are incorporated into the annual actuarial valuations, which determine the contribution rates at which participating employers must contribute in order to appropriately fund benefits.

The actuary recommended the fiscal year 2018 contribution rates remain unchanged from the fiscal year 2017 rates. The recommended fiscal year 2018 contribution rate for PSRS remains 29.0%. The recommended fiscal year 2018 contribution rate for PEERS remains 13.72%. The fiscal year 2018 contribution rates are in compliance with the PSRS/PEERS' Board of Trustees' Actuarial Funding Policies and represent the continued stability of contribution rates for employers and members.

The Board of Trustees, management and staff continually strive to improve the financial position of the Systems through a prudent investment program and long-term strategic planning.

Requests for Information

This financial report is designed to provide the Board of Trustees, our members, and other users of our financial report with a general overview of the Systems' finances and to demonstrate the Systems' accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Public School and Education Employee Retirement Systems of Missouri (PSRS/PEERS), P.O. Box 268, Jefferson City, MO 65102.

Public School Retirement System of Missouri
Public Education Employee Retirement System of Missouri
Statements of Fiduciary Net Position

*as of June 30, 2016
with comparative totals for June 30, 2015*

			Combined Totals	
	PSRS	PEERS	June 30, 2016	June 30, 2015
ASSETS				
Cash	\$ 75,849,297	\$ 13,096,817	\$ 88,946,114	\$ 108,437,929
Receivables				
Contributions	192,196,993	23,388,247	215,585,240	229,995,040
Accrued interest and dividends	63,519,053	7,417,614	70,936,667	69,989,802
Investment sales	1,468,462,731	171,475,886	1,639,938,617	1,588,159,927
Receivable from PEERS for allocated expenses	994,703	-	994,703	103,806
Other	6,811	1,838	8,649	31,946
Total receivables	<u>1,725,180,291</u>	<u>202,283,585</u>	<u>1,927,463,876</u>	<u>1,888,280,521</u>
Investments, at fair value				
U.S. Treasuries and TIPS	5,898,759,716	688,812,201	6,587,571,917	6,753,343,996
U.S. public equities	10,813,068,761	1,262,667,756	12,075,736,517	11,881,418,478
Non-U.S. public equities	5,152,924,108	601,719,203	5,754,643,311	5,935,766,632
Short term investments	500,150,729	60,241,824	560,392,553	739,394,010
Public debt	2,078,784,716	242,744,635	2,321,529,351	2,441,713,596
Private equity	2,731,251,511	318,934,735	3,050,186,246	2,885,830,062
Private credit	224,330,322	26,195,585	250,525,907	296,258,462
Private real estate	2,699,586,635	315,237,152	3,014,823,787	2,779,650,360
Hedged assets	4,317,185,809	504,128,054	4,821,313,863	5,236,252,683
Total investments	<u>34,416,042,307</u>	<u>4,020,681,145</u>	<u>38,436,723,452</u>	<u>38,949,628,279</u>
Invested securities lending collateral	365,310,827	42,658,214	407,969,041	415,683,769
Prepaid expenses	308,247	-	308,247	85,515
Capital assets, net of accumulated depreciation	25,214,511	-	25,214,511	26,014,091
Total assets	<u>36,607,905,480</u>	<u>4,278,719,761</u>	<u>40,886,625,241</u>	<u>41,388,130,104</u>
LIABILITIES				
Accounts payable	12,413,426	1,499,741	13,913,167	17,761,427
Interest payable	153,290	17,900	171,190	120,467
Securities lending collateral	365,311,695	42,658,315	407,970,010	415,680,317
Investment purchases	1,923,244,694	224,581,857	2,147,826,551	2,129,529,626
Payable due PSRS for allocated expenses	-	994,703	994,703	103,806
Accrued medical claims	161,200	98,800	260,000	75,000
Net other post employment benefit obligation	1,209,495	743,305	1,952,800	1,697,600
Compensated absences	1,441,848	794,465	2,236,313	2,071,535
Total liabilities	<u>2,303,935,648</u>	<u>271,389,086</u>	<u>2,575,324,734</u>	<u>2,567,039,778</u>
NET POSITION - RESTRICTED FOR PENSIONS	<u>\$ 34,303,969,832</u>	<u>\$ 4,007,330,675</u>	<u>\$ 38,311,300,507</u>	<u>\$ 38,821,090,326</u>

See accompanying Notes to the Financial Statements.

Public School Retirement System of Missouri
Public Education Employee Retirement System of Missouri
Statements of Changes in Fiduciary Net Position

*for the year ended June 30, 2016
with comparative totals for the year ended June 30, 2015*

	Combined Totals Year Ended			
	PSRS	PEERS	June 30, 2016	June 30, 2015
ADDITIONS				
Contributions				
Employer	\$ 670,794,045	\$ 106,717,021	\$ 777,511,066	\$ 760,549,209
Member	704,785,734	114,257,497	819,043,231	799,630,875
Total contributions	1,375,579,779	220,974,518	1,596,554,297	1,560,180,084
Investment income				
<i>From investing activities:</i>				
Net appreciation in fair value of investments	378,091,003	44,363,920	422,454,923	1,673,649,775
Interest from investments	173,421,770	20,034,292	193,456,062	197,310,288
Interest from bank deposits	67,293	7,444	74,737	37,662
Dividends	177,873,108	20,567,093	198,440,201	184,007,622
Total investment income	729,453,174	84,972,749	814,425,923	2,055,005,347
Less investment expenses	316,648,910	35,212,118	351,861,028	448,107,518
Net income from investing activities	412,804,264	49,760,631	462,564,895	1,606,897,829
<i>From security lending activities:</i>				
Security lending gross income	116,081,582	10,080,212	126,161,794	1,327,534
Net (depreciation) appreciation in fair value of security lending collateral	(3,968)	(453)	(4,421)	4,273
Less security lending activity expenses:				
Agent fees	1,496,176	166,242	1,662,418	989,138
Broker rebates (received) paid	(5,788,217)	(643,135)	(6,431,352)	(3,620,757)
Total security lending expenses	(4,292,041)	(476,893)	(4,768,934)	(2,631,619)
Net income from security lending activities	120,369,655	10,556,652	130,926,307	3,963,426
Total net investment income	533,173,919	60,317,283	593,491,202	1,610,861,255
Other income				
Miscellaneous income	6,326	104	6,430	27,647
Total other income	6,326	104	6,430	27,647
Total additions	1,908,760,024	281,291,905	2,190,051,929	3,171,068,986
DEDUCTIONS				
Monthly benefits	2,376,276,333	230,685,686	2,606,962,019	2,485,501,318
Refunds of contributions	54,630,399	19,704,792	74,335,191	75,765,636
Administrative expenses	11,547,623	6,981,527	18,529,150	15,641,164
Other expenses	15,342	46	15,388	1,988
Total deductions	2,442,469,697	257,372,051	2,699,841,748	2,576,910,106
Net (decrease) increase in net position	(533,709,673)	23,919,854	(509,789,819)	594,158,880
NET POSITION - RESTRICTED FOR PENSIONS				
Beginning of year	34,837,679,505	3,983,410,821	38,821,090,326	38,226,931,446
End of year	\$ 34,303,969,832	\$ 4,007,330,675	\$ 38,311,300,507	\$ 38,821,090,326

See accompanying Notes to the Financial Statements.

Notes to the Financial Statements

Note 1 - Plan Descriptions

The Board of Trustees of the Public School Retirement System of Missouri administers two separate retirement systems, the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS). The Board of Trustees consists of seven members, three of whom are elected PSRS active members, one an elected active member of PEERS and three persons appointed by the governor, one of whom must be a retired member of either PSRS or PEERS.

The funds of the two Systems are managed simultaneously. Investments of the Systems are combined in a commingled investment pool as allowed by state statute. Each System owns an equity position in the pool and receives proportionate investment income from the pool in accordance with their respective ownership percentage. Each System's allocated share of each type of investment in the pool is shown on the Statements of Fiduciary Net Position. Investment gains and losses are reported in the Statements of Changes in Fiduciary Net Position. Each System's assets may be used only for the payment of benefits to the members of the separate System in accordance with the statutes governing that System as well as expenses required to administer the System.

The Public School Retirement System of Missouri (PSRS)

PSRS is a mandatory cost-sharing multiple employer retirement system for all full-time certificated employees and certain part-time certificated employees of all public school districts in Missouri (except the school districts of St. Louis and Kansas City) and all public community colleges. The System also includes certificated employees of PSRS, Missouri State Teachers' Association, Missouri State High School Activities Association, and certain employees of the state of Missouri who elected to remain covered by PSRS under legislation enacted in 1986, 1987 and 1989. The majority of PSRS members are exempt from Social Security contributions. In some instances, positions may be determined not to be exempt from Social Security contributions. Any PSRS member who is required to contribute to Social Security comes under the requirements of Section 169.070 (9) RSMo, known as the "2/3's statute." PSRS members required to contribute to Social Security are required to contribute two-thirds of the approved PSRS contribution rate and their employer is required to match the contribution.

The members' benefits are further calculated at two-thirds the normal benefit amount.

PSRS was established as an independent trust fund by an Act of the Missouri General Assembly effective August 1, 1945. Statutes governing the System are found in Sections 169.010-169.141 and Sections 169.560-169.595 RSMo. It is a defined benefit plan providing service retirement, death and disability benefits to its members. Members are vested for service retirement benefits after accruing five years of service. Individuals who (a) are at least age 60 and have a minimum of 5 years of service, (b) have 30 years of service, or (c) qualify for benefits under the "Rule of 80" (service and age total at least 80) are entitled to a monthly benefit for life, which is calculated using a 2.5% benefit factor. Actuarially age-reduced benefits are available for members with five to 24.9 years of service at age 55 or with 25 years of service (if not yet age 55). Members who are younger than age 55 and who do not qualify under the "Rule of 80" but have between 25 and 29.9 years of service may retire with a lesser benefit factor. Members that are three years beyond normal retirement can elect to have their lifetime monthly benefits actuarially reduced in exchange for the right to also receive a one-time partial lump sum (PLSO) payment at retirement equal to 12, 24, or 36 times the Single Life benefit amount. Annual cost-of-living adjustments (COLAs) are provided for eligible service and disability retirees and for surviving beneficiaries receiving payments under optional benefit plans, up to a lifetime maximum of 80% of the original benefit amount.

Contributions – PSRS members were required to contribute 14.5% of their annual covered salary during fiscal year 2016. Employers were required to match the contributions made by employees. The contribution rate is set each year by the PSRS/PEERS Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions set in Section 169.030 RSMo. The annual statutory increase in the total contribution rate may not exceed 1% of pay. Administrative costs are financed through investment earnings. Contributions for employees of the State of Missouri were made by the state in accordance with the actuarially determined contribution rate needed to fund current costs and prior service costs of state employees as authorized in Section 104.342.8 RSMo.

Members – The number of PSRS members and benefit recipients served by the System at June 30, 2016:

Retirees and beneficiaries receiving benefits		58,020
Inactive members entitled to, but not yet receiving benefits		8,192
Active members:	Vested	58,657
	Non-vested	<u>19,472</u>
Total active members		78,129
Other inactive members and terminated accounts		<u>8,184</u>
Total		<u><u>152,525</u></u>

Employers – PSRS had 534 contributing employers during fiscal year 2016.

The Public Education Employee Retirement System of Missouri (PEERS)

PEERS is a mandatory cost-sharing multiple employer retirement system for all public school district employees (except the school districts of St. Louis and Kansas City), employees of the Missouri Association of School Administrators, and community college employees (except the Community College of St. Louis). Employees of covered districts who work 20 or more hours per week on a regular basis and who are not contributing members of the Public School Retirement System of Missouri (PSRS) must contribute to PEERS. Employees of PSRS who do not hold Missouri educator certificates also contribute to PEERS.

PEERS was established as a trust fund by an Act of the Missouri General Assembly effective October 13, 1965. Statutes governing the System are found in Sections 169.600 - 169.715 and Sections 169.560-169.595 RSMo. The statutes place responsibility for the operation of PEERS on the Board of Trustees of the Public School Retirement System of Missouri.

PEERS is a defined benefit plan providing service retirement and disability benefits to its members. Members are vested for service retirement benefits after accruing five years of service. Individuals who (a) are at least age 60 and have a minimum of five years of service, (b) have 30 years of service, or (c) qualify for benefits under the “Rule of 80” (service and age total at least 80) are entitled to a monthly benefit for life, which is calculated using a 1.61% benefit factor. Members qualifying for “Rule of 80” or “30-and-out” are entitled

to an additional temporary .8% benefit multiplier until reaching minimum Social Security age (currently age 62). Actuarially age-reduced retirement benefits are available with five years of service at age 55. Members who are younger than age 55 and who do not qualify under the “Rule of 80” but have between 25 and 29.9 years of service may retire with a lesser benefit factor. Members that are three years beyond normal retirement can elect to have their lifetime monthly benefits actuarially reduced in exchange for the right to also receive a one-time partial lump sum (PLSO) payment at retirement equal to 12, 24, or 36 times the Single Life benefit amount. Annual cost-of-living adjustments (COLAs) up to a lifetime maximum of 80% of the original benefit amount are provided for eligible service and disability retirees and for surviving beneficiaries receiving payments under optional benefit plans.

Contributions – PEERS members were required to contribute 6.86% of their annual covered salary during fiscal year 2016. Employers were required to match the contributions made by their employees. The contribution rate is set each year by the PSRS/PEERS Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions in Section 169.620 RSMo. The annual statutory increase in the total contribution rate may not exceed 0.5% of pay. Administrative costs proportional to its membership size are reimbursed by PEERS to the Public School Retirement System of Missouri (PSRS) and are financed through investment earnings.

Members - The number of PEERS members and benefit recipients served by the System at June 30, 2016:

Retirees and beneficiaries receiving benefits		27,583
Inactive members entitled to, but not yet receiving benefits		6,459
Active members:	Vested	27,758
	Non-vested	<u>20,093</u>
Total active members		47,851
Other inactive members and terminated accounts		<u>25,118</u>
Total		<u><u>107,011</u></u>

Employers – PEERS had 530 contributing employers during fiscal year 2016.

Note 2 – Summary of Significant Accounting Policies

Basis of Accounting

The Systems' financial statements, notes to the financial statements, and required supplementary information were prepared in conformity with GASB Statement No. 67, Financial Reporting for Pension Plans. GASB Statement No. 67 addresses accounting and financial reporting requirements for pension plans. Significant requirements include an actuarial calculation of total and net pension liability. It also includes comprehensive footnote disclosures regarding the pension liability, the sensitivity of the net pension liability to the discount rate and increased investment activity disclosures. The total pension liability, determined in accordance with GASB Statement No. 67 is presented in Note 5 - *Net Pension Liability of Employers*.

The financial statements of both Systems were prepared using the accrual basis of accounting. For both Systems, member and employer contributions are recognized when due, pursuant to formal commitments and statutory requirements. Benefits and refunds are recognized when due and payable in accordance with the statutes governing the Systems. Expenses are recognized when the liability is incurred, regardless of when payment is made. Administrative expenses are funded through investment earnings.

GASB Statement No. 72, Fair Value Measurement and Application, was implemented during fiscal year 2016. GASB Statement No. 72 addresses accounting and reporting issues related to fair value measurements. The Statement requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques.

Cash

Cash includes cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition.

Receivables

Receivables consist primarily of contributions owed and yet to be remitted by employers, pending investment trades and interest and dividends payable to the Systems as of the end of each fiscal year.

Method Used to Value Investments

Investments are reported at fair value. The fair value of investments is based on published market prices and quotations from major investment brokers at current exchange rates, as available. Many factors are considered in arriving at fair value. Fixed income securities not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk. The value of private equity, credit and real estate investments that do not have an established market is determined based upon the most current net asset values and activities through year end. When values are not readily available, alternative investments are valued based on a good faith determination by the General Partner.

Capital Assets

The building and other capital assets are owned by PSRS and are stated at cost less depreciation accumulated since acquisition. The stated value does not purport to represent replacement or realized value. Costs of major additions and improvements are capitalized. Expenditures for maintenance and repairs are charged to operations as incurred. Depreciation is calculated using the straight-line method, with estimated lives ranging from three to 40 years in the following major classes: computers and software, three years; vehicles, five years; equipment, five years; building and land improvements, 15 years; pension administration system, 20 years; building, 40 years.

PSRS allocates depreciation expense to PEERS for the use of capital assets.

Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of net position restricted for pension benefits at June 30, 2016. Actual results could differ from those estimates.

Total Columns

The financial statements include total column information for the prior year. Such information does not include sufficient detail to constitute a presentation in conformity with U.S. generally accepted accounting principles. Accordingly, such information should be read in conjunction with both Systems' financial statements for the year ended June 30, 2015, from which the information was derived. Certain reclassifications have been made to the 2015 totals to conform with the classifications for 2016.

Note 3 – Designations of Net Position – Restricted for Pensions

The Systems designate the net position – restricted for pensions for the following specific purposes:

Public School Retirement System of Missouri

	2016
Designated for Members’ Contributions (Member Reserves) – Accumulation of active and terminated member contributions plus interest.	\$ 7,404,922,777
Designated for the Payment of Benefits to Present Retirees – Transfers from Member Reserves at retirement and an actuarially determined transfer from Operating Reserves to fund the System’s obligation for benefit payments and cost-of-living adjustments to current retirees and beneficiary recipients.	25,895,011,565
Designated for Operating Expenses/Benefits to Future Retirees (Operating Reserves) – Accumulation of employer contributions and investment income used to fund future benefit payments, interest on member accounts and, administration and maintenance expenses of the System.	<u>1,004,035,490</u>
Net Position – Restricted For Pensions	<u>\$ 34,303,969,832</u>

Public Education Employee Retirement System of Missouri

	2016
Designated for Members’ Contributions (Member Reserves) – Accumulation of active and terminated member contributions plus interest.	\$ 963,845,285
Designated for the Payment of Benefits to Present Retirees – Transfers from Member Reserves at retirement and an actuarially determined transfer from Operating Reserves to fund the System’s obligation for benefit payments and cost-of-living adjustments to current retirees and beneficiary recipients.	2,205,327,605
Designated for Operating Expenses/Benefits to Future Retirees (Operating Reserves) – Accumulation of employer contributions and investment income used to fund future benefit payments, interest on member accounts, and administration and maintenance expenses of the System.	<u>838,157,785</u>
Net Position – Restricted For Pensions	<u>\$ 4,007,330,675</u>

Note 4 – Deposits, Investments and Securities Lending Program

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the Systems will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Systems would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. To mitigate custodial credit risk, the Systems require that all deposits be 100% collateralized with securities held in the Systems' name and held by a third party agent.

Deposits

Cash balances include short-term securities held by the custodial bank in a pooled short-term investment fund and operating balances held by the depository banks.

At June 30, 2016, the PSRS carrying amount of deposits at the depository bank was \$17,802,706 and the bank balance was \$15,269,163. Of the bank balance, \$250,000 was covered by federal depository insurance. In addition the deposits were collateralized with U.S. agency securities held by a third-party institution in the System's name, totaling \$15,865,349. An additional \$2,806,248 was held in overnight repurchase agreements with a book value of \$2,806,248. The overnight repurchase agreements were collateralized with U.S. agency securities held by a third-party institution in the System's name totaling \$2,806,248.

At June 30, 2016, the PEERS carrying amount of deposits at the depository bank was \$1,826,581 and the bank balance was \$1,793,836. Of the bank balance, \$250,000 was covered by federal depository insurance. In addition the deposits were collateralized with U.S. agency securities held by a third-party institution in the System's name, totaling \$2,370,464. An additional \$725,559 was held in overnight repurchase agreements with a book value of \$725,559. The overnight repurchase agreements were collateralized with U.S. agency securities held by a third-party institution in the System's name totaling \$725,559.

Investment Policy and Asset Allocation

Funds for both Systems that are in excess of a safe operating balance are invested under policies and

procedures established by the Board of Trustees. Chapter 169.040 RSMo as amended effective August 13, 1984, authorizes any investment which a prudent person acting in a like capacity and familiar with similar matters would use in the conduct of an enterprise of a like character and with like aims. Any person with fiduciary responsibility with respect to the Systems is covered by this "prudent person" rule.

The Board of Trustees of PSRS and PEERS approved the commingling of assets for purposes of investment as allowed by state statute. In order to implement this change, PSRS and PEERS adopted the Missouri Education Pension Trust Agreement. The Missouri Education Pension Trust (MEPT) is managed by the PSRS and PEERS Board of Trustees and Investment Staff. Effective July 1, 2013, the invested assets of the Systems were pooled and invested in MEPT. All assets held by MEPT are for the exclusive benefit of PSRS and PEERS. Each of the Systems has equity in MEPT based on funds contributed and earnings allocated. Earnings of MEPT are allocated based on the average daily balances of each of the respective Systems. Individual investments in MEPT are not specifically identified to the respective Systems. For financial statement presentation, MEPT assets, liabilities, revenues, and expenses have been allocated to and presented in each respective system in the basic financial statements as required by investment pools. Due to the fact all invested assets are invested in MEPT, the rate of return for each of the Systems is approximately the same.

The Systems' policy in regard to the allocation of invested assets is established and may be amended by the Board of Trustees. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided by the Systems. The Board of Trustees amended the long term asset allocation at their June 2016 Trustees' meeting. The long-term target for Public Credit was decreased from 12.0% to 7.0%, which resulted in Public Risk Assets decreasing from 60.0% to 55.0%. Private Equity increased from 10.5% to 12.0%, Private Real Estate increased from 7.5% to 9.0% and Private Credit increased from 2.0% to 4.0%, resulting in Private Risk Assets increasing from 20.0% to 25.0%. Implementation of the amended long-term targets will be achieved over a number of years through a disciplined investment approach. The policy benchmarks will change over time as the Systems make meaningful progress towards the new long-term targets. The following table illustrates the Systems' Board of Trustees approved asset allocation as of June 30, 2016.

Investment Type	Long-term Target	Policy Ranges
<i>Public Risk Asset Programs</i>		
U.S. Public Equity	27.0%	16% - 48%
Public Credit	7.0%	0% - 20%
Hedged Assets	6.0%	0% - 25%
Non-U.S. Public Equity	<u>15.0%</u>	<u>8% - 28%</u>
Total Public Risk Assets	55.0%	35% - 75%
<i>Safe Assets</i>		
U.S. Treasuries	16.0%	0% - 40%
U.S. TIPS	4.0%	0% - 40%
Cash Equivalents	<u>0.0%</u>	<u>0% - 10%</u>
Total Safe Assets	20.0%	10% - 40%
<i>Private Risk Asset Programs</i>		
Private Equity	12.00%	4% - 15%
Private Real Estate	9.00%	4% - 12%
Private Credit	<u>4.00%</u>	<u>0% - 8%</u>
Total Private Risk Assets	25.00%	10% - 30%
Total Fund	100.0%	

The Systems categorize their fair value measurements within the fair value hierarchy established by U.S. generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and gives 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). The Systems have classified the fair value measurements on the following page in accordance with the Board approved asset allocation discussed above. The classification will not directly reconcile to total investments per the statements of Fiduciary Net Position due to the considerations of cash holdings, other liabilities and accruals.

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 (NAV) 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 Systems' assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The tables on the following page show the fair value leveling of the investments for the Systems.

Short-term securities generally include investments in money market-type securities reported at cost which approximates market or fair value.

Equities within all assets classes that are classified in Level 1 are valued using prices quoted in active markets for those securities. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities. Equity securities classified in Level 3 are valued with last trade data having limited trading volume.

Fixed income securities and derivatives within all assets classes that are classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Such securities include U.S. Treasuries, corporate and agency bonds, bank loans, and mortgage backed securities. Level 2 fixed income securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market.

Investments and Derivatives Measured at Fair Value

Investments by fair value level	Total at 6/30/2016	Fair Value Measurements		
		Level 1	Level 2	Level 3
U.S. Treasuries and TIPS				
U.S. Treasuries	\$ 6,587,571,917	\$ -	\$ 6,587,571,917	\$ -
Total U.S. Treasuries and TIPS	6,587,571,917	-	6,587,571,917	-
U.S. public equities				
Equities	5,986,406,182	5,986,385,237	20,945	-
U.S. Treasuries	864,259,193	-	864,259,193	-
Total U.S. public equities	6,850,665,375	5,986,385,237	864,280,138	-
Non-U.S. public equities				
Equities	3,384,473,010	3,383,585,239	-	887,771
U.S. Treasuries	319,047,893	-	319,047,893	-
Total Non-U.S. public equities	3,703,520,903	3,383,585,239	319,047,893	887,771
Short term investments				
Short term investment fund	585,074,161	-	585,074,161	-
Total Short term investments	585,074,161	-	585,074,161	-
Public credit				
Corporate Bonds	1,951,321,282	-	1,951,321,282	-
Bank Loans	297,909,302	-	297,909,302	-
U.S. Treasuries	73,020,618	-	73,020,618	-
Equities	82,940	22,901	60,039	-
Mortgage Backed Securities	590,769	-	590,769	-
Municipal Bonds	681,247	-	681,247	-
Total Public credit	2,323,606,158	22,901	2,323,583,257	-
Hedged assets				
U.S. Treasuries	562,306,936	-	562,306,936	-
Equities	180,748,276	180,748,276	-	-
Corporate Bonds	21,636,761	-	21,636,761	-
Agency Bonds	3,550,110	-	3,550,110	-
Total Hedged assets	768,242,083	180,748,276	587,493,807	-
Private equity				
Equities	2,672,806	2,672,806	-	-
Total Private equity	2,672,806	2,672,806	-	-
Total investments by fair value level	\$ 20,821,353,403	\$9,553,414,459	\$11,267,051,173	\$887,771
Total investments measured at the NAV <i>(See detailed schedule on the following page)</i>	\$ 17,115,093,971			
Total Investments measured at fair value	\$ 37,936,447,374			
Investment derivative instruments:				
	6/30/16	Level 1	Level 2	Level 3
Equity total return swaps	\$ 33,840,337	\$ -	\$ 33,840,337	\$ -
Interest rate swaps	(1,588,278)	-	(1,588,278)	-
Foreign currency forwards	5,596,955	-	5,596,955	-
Total investment derivative instruments	\$ 37,849,014	\$ -	\$ 37,849,014	\$ -
	6/30/16	Level 1	Level 2	Level 3
Total invested securities lending collateral	\$ 407,969,402	\$ -	\$ 407,969,402	\$ -

Investments Measured at the NAV	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Public Equity Investments				
Passive U.S. Large Cap Funds	\$ 2,773,643,310	\$ -	Daily	1 day
Passive Non-U.S. Equity Fund	706,959,798	-	Daily	2 days
Active Non-U.S. Equity Funds	1,335,836,491	-	Monthly	15 - 120 days
Total Public Equity Investments	4,816,439,599	-		
Hedge Fund Investments				
Asset Allocation/Global Macro	663,738,641	-	Monthly	5 days
Distressed Debt/Credit	647,421,187	-	Quarterly, semi-annual	65 - 90 days
Diversified Beta/Inflation	262,805,052	-	Quarterly	30 days
Equity Long/Short	1,614,557,361	-	Monthly, quarterly	5 - 60 days
Multi-Strategy	2,797,268,985	-	Monthly, quarterly	15 - 120 days
Total Hedge Fund Investments	5,985,791,226	-		
Private Risk Investments				
Private Equity	3,047,513,451	2,621,929,385	Not eligible	N/A
Private Credit	250,525,908	201,194,170	Not eligible	N/A
Private Real Estate - closed end funds	1,528,051,416	638,713,577	Not eligible	N/A
Private Real Estate - open end funds	1,486,772,371	98,150,000	Quarterly	15 - 180 days
Total Private Risk Investments	6,312,863,146	3,559,987,132		
Total investments measured at the NAV	\$ 17,115,093,971	\$ 3,559,987,132		

The fair values of investments in certain public equity, hedged assets, and private risk assets are based on the investments' net asset value (NAV) per share (or its equivalent) and are presented in the above table. Investments that are measured at fair value using the net asset value (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

Public Equity Investments

The public equity investments include two passive U.S. large cap equity funds, one passive non-U.S. equity fund and four active non-U.S. equity funds. The passive equity funds provide for basic market exposure with daily liquidity while the four active funds provide active investment strategies in the global public equity and emerging markets.

Hedged Assets

The hedged assets investment strategy provides diversification and reduced volatility to the total portfolio. The purpose of this program is to enhance the overall risk/return profile through the inclusion of specialized investment strategies that typically generate returns in a different fashion (i.e., absent a high correlation to equities or bonds).

Asset Allocation/Global Macro includes investments in two funds with the strategy of taking long and short positions based on top-down macroeconomic analysis (i.e., interest rates, foreign exchange rates, and commodity prices). Global strategies involve long and short positions in securities of diverse geographical regions such as developed and emerging markets.

Distressed Debt/Credit includes investments in two funds which seek returns by capitalizing on opportunities in financially distressed companies' debt and credit securities.

Diversified Beta/Inflation includes investments in three funds with a risk parity approach which focuses on the allocation of risk across the portfolio.

Equity Long/short includes investments in six funds with the strategy of taking long positions in attractive equity securities and short positions in unattractive equity securities.

Multi-Strategy includes investments in eleven funds which represent a broad style of investing that seeks diverse sources of alpha generation and positive absolute returns by employing a variety of investment strategies. Strategies utilized may include, but are not limited to, convertible bond arbitrage, equity long/short, statistical arbitrage and merger arbitrage.

Private Risk Assets

Private risk investments are typically very long term in nature, not publicly traded and relatively illiquid. Investments are made in limited partnerships where redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as underlying portfolio investments are realized.

Private Equity investments provide financing for start-up companies, private middle market companies, firms in financial distress and public and non-public firms seeking buyout financing. Private equity investments can be classified into three basic sub-asset class categories: Venture Capital, Buyouts and Debt-Related.

Private Credit investments are comprised primarily of debt-related investments that provide a current yield along with equity participation (usually warrants). Primary strategies are distressed debt, bankruptcy restructurings, mezzanine debt, bank loans, and other credit-drive or debt-related strategies.

Real Estate investments are intended to provide exposure to a diversified portfolio of institutional quality private real estate investments that will provide meaningful, consistent returns, and act as a hedge against inflation and a diversifier to the overall investment portfolio. The real estate portfolio includes closed-end funds where distributions from each investment will be received as the underlying investments are liquidated and open-end funds which offer redemption options.

Rate of Return

For the year ended June 30, 2016, the money-weighted rate of return, net of all investment expenses and fees was 1.6%. The money weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. Time weighted returns (geometric return) for the year ended June 30, 2016 net of all investment expenses and fees, was 1.6%.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the Systems' investment in a single issue. To mitigate this risk, the Systems' investment policy prohibits investing more than 5% of the total investment portfolio into any single financial institution or issuer, excluding U.S. government securities. At June 30, 2016, the Systems did not have more than 5% of total investments in a single issue except for U.S. government securities.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Systems' investment policy restricts duration as a means of managing its exposure to fair value losses arising from increased interest rates. In addition, each manager must follow guidelines established relative to the duration of its benchmark. The portfolios are continually monitored to ensure compliance with these guidelines. The following table includes collateral pledged for securities lending collateral. The maturities of all debt securities are presented below:

Security Type	Fair Value at June 30, 2016	< 1 year to maturity	1 to 5 years to maturity	6 to 10 years to maturity	Over 10 years to maturity
U.S. treasuries	\$ 8,454,789,339	\$ 3,185,873,172	\$ 3,105,765,068	\$ 1,015,605,649	\$ 1,147,545,450
Agencies	11,549,527	10,008,277	1,541,250	-	-
Collateralized mortgage obligations	590,769	-	590,769	-	-
Asset backed securities	14,959,280	-	-	14,959,280	-
Corporate bonds	2,255,908,065	76,961,750	1,086,144,153	877,574,642	215,227,520
Repurchase agreements	169,410,755	169,410,755	-	-	-
Commercial Paper	26,978,090	26,978,090	-	-	-
Certificate of Deposit	124,997,998	124,997,998	-	-	-
Derivatives	(6,771,790)	(5,183,512)	-	-	(1,588,278)
Municipals	681,247	-	-	681,247	-
Commingled Funds (see note)					
JPM STIF	585,074,363	585,074,363	-	-	-
BlackRock TempFund	15,000,000	15,000,000	-	-	-
Bridgewater STIF II	23,074,117	23,074,117	-	-	-
Bridgewater US IL Bond Fund	9,441,175	-	-	-	9,441,175
Bridgewater International Bond Fund	11,713,808	-	-	11,713,808	-
Dreyfus Institutional	15,000,000	15,000,000	-	-	-
Currency	9,425,178	9,425,178	-	-	-
Total	\$11,721,821,921	\$ 4,236,620,188	\$ 4,194,041,240	\$ 1,920,534,626	\$ 1,370,625,867
Percentage of Total Fixed Income	100%	36%	36%	16%	12%

Note: Commingled Funds are presented at the weighted average maturity. These funds do not have a single maturity date; however, the underlying securities have maturity dates. To more accurately reflect the interest rate risk of the Systems, these weighted averages are displayed.

The following table includes the debt maturities for the Systems' deposits and repurchase agreements collateral.

Security Type	Fair Value at June 30, 2016	< 1 year to maturity	1 to 5 years to maturity	6 to 10 years to maturity	Over 10 years to maturity
PSRS - Agencies	\$ 18,671,597	\$ -	\$ 12,968,141	\$ -	\$ 5,703,456
PEERS - Agencies	3,096,023	-	1,997,102	167,590	931,331

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Systems do not have a single investment policy designating the minimum allowable credit rating; however, each manager must follow guidelines established specifically for its managed portfolio. The portfolios are continually monitored to ensure compliance with these guidelines. The following tables include collateral pledged for securities lending collateral. The Systems' debt investments by credit rating category as of June 30, 2016 are presented in the following tables.

Security Type	Fair Value at June 30, 2016	%	AAA	AA	A	BBB	BB	B	CCC	Not Rated
U.S. treasuries	\$ 8,454,789,339	73%	\$ 8,454,789,339	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Agencies	11,549,527	0%	7,999,417	3,550,110	-	-	-	-	-	-
Collateralized mortgage obligations	590,769	0%	-	-	-	-	-	-	590,769	-
Asset backed securities	14,959,280	0%	-	-	14,959,280	-	-	-	-	-
Corporate bonds	2,255,908,065	20%	-	221,020,411	582,647,357	1,009,135,694	187,882,540	213,492,104	23,147,143	18,582,816
Repurchase agreements	169,410,755	1%	169,410,755	-	-	-	-	-	-	-
Commercial paper	26,978,090	0%	26,978,090	-	-	-	-	-	-	-
Certificates of deposit	124,997,998	1%	124,997,998	-	-	-	-	-	-	-
Derivatives	(6,771,790)	0%	-	-	-	-	-	-	-	(6,771,790)
Municipals	681,247	0%	-	681,247	-	-	-	-	-	-
Commingled Funds (see note)										
JPM STIF	585,074,363	5%	585,074,363	-	-	-	-	-	-	-
BlackRock TempFund	15,000,000	0%	15,000,000	-	-	-	-	-	-	-
Bridgewater STIF II	23,074,117	0%	23,074,117	-	-	-	-	-	-	-
Bridgewater US IL Bond Fund	9,441,175	0%	-	9,441,175	-	-	-	-	-	-
Bridgewater International Bond Fund	11,713,808	0%	-	11,713,808	-	-	-	-	-	-
Dreyfus Institutional	15,000,000	0%	15,000,000	-	-	-	-	-	-	-
Currency	9,425,178	0%	-	-	-	-	-	-	-	9,425,178
Total	\$ 11,721,821,921	100%	\$ 9,422,324,079	\$246,406,751	\$597,606,637	\$ 1,009,135,694	\$187,882,540	\$ 213,492,104	\$ 23,737,912	\$21,236,204
Percentage of Total Fixed Income		100%	80%	2%	5%	9%	2%	2%	0%	0%

Note: Commingled Funds are presented at the weighted average credit quality. These funds do not carry a rating in and of themselves; however, the underlying securities are all rated. To more accurately reflect the credit risk of the Systems, these weighted averages are displayed. Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not required to be disclosed; however, we feel it shows a more true picture of our fixed income holdings.

All collateral pledged in support of the Systems' deposits and repurchase agreements was held in agency securities with a quality rating of AA.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The Systems do not have a single investment policy designating the allowable exposure to foreign currency; however, each manager must follow guidelines established specifically for its managed portfolio. The portfolios are continually monitored to ensure compliance with these guidelines. The Systems' exposure to foreign currency risk as of June 30, 2016 is presented in the following table.

Currency	Debt	Equity	Currency/Short Term	Total
Australian Dollar	\$ 1,092,504	\$ 129,029,435	\$ -	\$ 130,121,939
Brazilian Real	1,548,144	59,984,583	-	61,532,727
British Pound Sterling	5,514,385	326,415,500	12,885,420	344,815,305
Canadian Dollar	418,761	180,125,344	-	180,544,105
Chilean Peso	220,918	6,719,461	-	6,940,379
Colombian Peso	359,185	-	-	359,185
Czech Koruna	27,935	1,991,093	-	2,019,028
Danish Krone	(456,478)	29,668,864	-	29,212,386
Egyptian Pound	17,466	127,821	-	145,287
Euro Currency	10,611,902	842,333,538	85,218,822	938,164,262
Hong Kong Dollar	1,221,940	194,537,085	-	195,759,025
Hungarian Forint	178,419	6,705,348	-	6,883,767
Indian Rupee	1,134,589	84,761,333	-	85,895,922
Indonesian Rupiah	365,899	15,587,614	-	15,953,513
Israeli Shekel	183,941	573,096	-	757,037
Japanese Yen	4,059,069	354,536,240	-	358,595,309
Malaysian Ringgit	471,150	34,981,451	-	35,452,601
Mexican Peso	324,970	30,972,411	-	31,297,381
New Taiwan Dollar	245,314	56,800,830	-	57,046,144
New Turkish Lira	1,192,463	16,969,502	-	18,161,965
New Zealand Dollar	1,722,813	25,553,563	-	27,276,376
Norwegian Krone	101,441	1,172,925	-	1,274,366
Peruvian Nuevo Sol	1,741	-	-	1,741
Philippine Peso	37,022	14,113,665	-	14,150,687
Polish Zloty	209,365	10,783,970	-	10,993,335
Qatari Rial	-	5,588,794	-	5,588,794
Russian Ruble	(36,477)	-	-	(36,477)
Singapore Dollar	29,941	54,117,146	-	54,147,087
South African Rand	1,452,474	54,119,636	-	55,572,110
South Korean Won	(284,081)	97,732,058	-	97,447,977
Swedish Krona	479,255	41,904,642	-	42,383,897
Swiss Franc	(135,165)	220,798,474	-	220,663,309
Thailand Baht	297,199	13,891,999	-	14,189,198
UAE Dirham	21,670	88,575	-	110,245
Yuan Renminbi	-	2,784,832	-	2,784,832
Total	\$ 32,629,674	\$ 2,915,470,828	\$ 98,104,242	\$ 3,046,204,744

Derivatives

Derivatives are generally defined as investment instruments whose cash flows or fair values are derived from the value of some other asset or index. The Systems are parties to derivatives which have off-balance sheet risk. These derivative instruments are used in the normal course of business to generate earnings and reduce exposure to fluctuations in market conditions. The Systems are exposed to various types of credit, market, and legal risk related to these investments. Investment staff monitors these types of investments with extreme care and is not aware of any undue risks at this time. All derivatives are considered investments. Derivatives are reported at fair value on the Statements of Fiduciary Net Position based on quoted market prices when available. In the instances that quoted market prices are unavailable, pricing is obtained via independent pricing sources.

The fair value balances and notional amounts of derivative instruments outstanding as of June 30, 2016, classified by type are as follows:

Investment Derivatives	Fair Value at June 30, 2016		
	Classification	Amount	Notional
Swaps			
Pay-fixed interest rate swap	Investments, at fair value	\$ (1,588,278)	\$ 80,000,000
Total return swaps - equity	Investments, at fair value	33,840,337	2,445,413,153
Total swaps		32,252,059	2,525,413,153
Futures			
Equity futures long	Investments, at fair value	-	102,854,283
Equity futures short	Investments, at fair value	-	50,844,738
Treasury futures short	Investments, at fair value	-	686,381,369
Commodity futures long	Investments, at fair value	-	17,455,040
Total futures		-	857,535,430
Foreign currency forwards net receivable/payable	Investment Sales and Purchases	5,596,955	-
Total Investment Derivatives		\$ 37,849,014	\$ 3,382,948,583

Swaps - The Systems' investment managers have entered into various swaps including interest rate swaps, credit default swaps and equity and total return swaps. Swaps represent an agreement between two parties to exchange sequences of cash flows over a period in the future. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty who, in turn, agrees to make return interest payments that float with some reference rate. A credit default swap is a contract whereby the credit risk associated with an investment is transferred by entering into an agreement with another party, who in exchange for periodic fees, agrees to make payments in the event of a default or other predetermined credit event. A total return swap is a contract in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of the underlying asset. The underlying asset is typically an index, bond, etc. Gains and losses on swaps are determined based on market values and are recorded in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Position. Net gains on swaps of \$11.0 million were recognized for the fiscal year ended June 30, 2016.

Futures - Futures represent commitments to purchase (asset) or sell (liability) securities at a future date and at a specified price. Futures contracts are traded on organized exchanges (exchange traded) thereby minimizing the Systems' credit risk. The net change in the value of futures contracts is settled daily in cash with the exchanges. Net gains or losses resulting from the daily settlements are included in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Position. The Systems recognized net losses on futures contracts of \$15.4 million during the fiscal year ended June 30, 2016.

Options - Options represent or give buyers the right, but not the obligation, to buy (call) or sell (put) an asset at a preset price over a specified period. The option's price is usually a small percentage of the underlying asset's value. As a writer of financial options, the Systems' investment managers receive a premium at the outset of the agreement and bear the risk of an unfavorable change in the price of the financial instrument underlying the option. As a purchaser of financial options, the Systems' investment managers pay a premium at the outset of the agreement and the counterparty bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Net gains or losses resulting from such obligations are included in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Position. The Systems recognized net gains on option contracts of \$0.5 million during the fiscal year ended June 30, 2016.

Currency forwards - Currency forwards represent forward foreign exchange contracts that are entered into in order to hedge the exposure to changes in foreign currency rate on the foreign currency dominated portfolio holdings. A forward foreign exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. The gain or loss arising from the difference between the original contracts and the closing of such contracts is included in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Position. The Systems recognized net gains on such contracts of \$14.5 million during the fiscal year ended June 30, 2016.

Derivative Risk - Derivatives that are exchange traded are not subject to credit risk. No derivatives held are subject to custodial credit risk.

At June 30, 2016 the counterparties' credit ratings for currency forwards, options and swaps are subject to credit risk as shown below:

Derivative Counterparty Credit Ratings			
Quality Rating	Swaps	Forwards	Total
AA	\$ -	\$ 1,093,687	\$ 1,093,687
A	9,790,564	4,292,615	14,083,179
BBB	23,440,383	210,653	23,651,036
Total subject to credit risk	\$ 33,230,947	\$ 5,596,955	\$ 38,827,902

The Systems are exposed to interest rate risk on their interest rate swaps. As the variable portion of the swaps move in the market, the Systems' exposure increases and decreases. The Systems are exposed to termination risk. The Systems' investment managers or their counterparties may terminate a derivative if the either party fails to perform under the terms of the contract.

The Systems' derivatives are governed by ISDA Master Agreements between the Systems and the Counterparties. These agreements set forth collateral requirements and applicable netting arrangements. Foreign currency risks are reflected on page 34.

The Systems could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. The Systems' investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. The Systems anticipate that the counterparties will be able to satisfy their obligations under the contracts.

The derivative financial instruments discussed involve, to varying degrees, elements of market risk to the extent of future market movements in excess of the amounts recognized in the Statements of Fiduciary Net Position. Market risk arises from the potential unfavorable change in the value of the underlying instruments. The contract or notional amounts of these instruments reflect the extent of the Systems' involvement in each class of financial instrument; however, these amounts do not represent the exposure to market loss. Additional derivatives may be held in limited partnerships and commingled funds that are not reflected below.

Security Lending Activity

Under the “prudent person” authority of the governing statutes and in accordance with the policies set by the Board of Trustees, the Systems lend securities to broker-dealers and banks pursuant to a form of loan agreement. The Systems’ custodial bank is authorized to act as the Systems’ agent to lend available securities to approved broker-dealers and banks subject to the receipt of acceptable collateral.

During the fiscal year, the Systems’ custodial bank lent, on behalf of the Systems, securities to participating broker-dealers. The broker-dealers must provide collateral in the form of cash. The Systems did not impose restrictions during the fiscal year on the amount of loans that the custodial bank made on their behalf. Borrowers were required to deliver collateral for each loan equal to: (1) in the case of loaned securities denominated in U.S. dollars or whose primary trading market was located in the United States, or sovereign debt issued by foreign governments, 102% of the fair value of the loaned securities and (2) in the case of loaned securities not denominated in U.S. dollars or whose primary trading market was not located in the United States, 105% of the fair value of the loaned securities.

Pursuant to the lending agreement, the custodial bank has an obligation to provide a form of indemnification to the Systems in the event of default by a borrower. There were no violations of the contractual provisions nor were there any borrower or lending agent default losses during the fiscal year.

The market value of securities on loan as of June 30, 2016 was \$395,280,994. On June 30, 2016 the Systems had no credit risk exposure to borrowers as the cash and securities collateral amounts received exceeded amounts on loan. Loans are generally terminable on demand. However, with the prior approval of the Systems, loans may be made on the basis of a specified termination date, with or without providing for the right of the Systems to terminate or substitute equivalent securities. As of June 30, 2016, there were no term loans.

Cash collateral is invested in separately managed accounts in accordance with the investment guidelines approved by the Systems. The primary investment objective is the preservation of principal. As of June 30, 2016, the cost basis of the invested cash collateral totaled \$407,970,010 and the estimated market value totaled \$407,969,041.

The Systems’ recognized net depreciation of \$4,421 for the year ended June 30, 2016 on the invested collateral account. Such is reported as net (depreciation) appreciation in fair value of security lending collateral on the Statements of Changes in Fiduciary Net Position.

The weighted average duration of invested collateral as of June 30, 2016 was 16 days and an average final maturity of approximately 29 days. Because the loans were terminable at will, their duration did not match the duration of the investments made with cash collateral.

Current year securities lending income includes \$123 million of revenue from the settlement of legal proceedings with the System’s prior custodian. Please refer to additional discussion in Note 9 – *Commitments and Contingencies*.

Note 5 – Net Pension Liability of Employers

The components of the net pension liability of the Systems' employers at June 30, 2016 are as follows:

	Total Pension Liability (TPL) (a)	Plan Fiduciary Net Position-Restricted for Pensions (b)	Net Pension Liability (NPL) (a - b)	Plan Fiduciary Net Position as a % of TPL (b/a)	Covered Employee Payroll (c)	Employers' NPL as a % of Covered Payroll ((b-a)/c)
PSRS	\$ 41,744,618,662	\$ 34,303,969,832	\$ 7,440,648,830	82.2%	\$ 4,556,137,282	163.3%
PEERS	\$ 4,809,665,957	\$ 4,007,330,675	\$ 802,335,282	83.3%	\$ 1,519,081,146	52.8%

Actuarial Assumptions - Actuarial valuations of the Systems involve estimates of the reported amount and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The Board of Trustees adopts actuarial assumptions, each of which individually represents a reasonable long-term estimate of anticipated experience for the Systems, derived from experience studies conducted every fifth year. The most recent comprehensive experience studies were completed in June 2016. All economic and demographic assumptions were reviewed and updated, where appropriate, based on the results of the study and effective with the June 30, 2016 valuation. The next experience studies are scheduled for 2021.

The Schedules of Employer's Net Pension Liability presents multi-year trend information about whether the plan net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the required supplementary information following the notes to the financial statements. The total pension liability was determined by an actuarial valuation as of June 30, 2016. A summary of the significant actuarial assumptions as of June 30, 2016 are shown below and on the following page. The significant actuarial assumptions utilized in the previous year are also included to illustrate revisions from the prior year.

Measurement Date	June 30, 2016	June 30, 2015
Valuation Date	June 30, 2016	June 30, 2015
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Investment Rate of Return	7.75%	8.00%
Inflation	2.25%	2.50%
Total Payroll Growth		
PSRS	2.75% per annum, consisting of 2.25% inflation, 0.25% additional inflation due to the inclusion of health care costs in pension earnings, and 0.25% of real wage growth.	3.50% per annum, consisting of 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.
PEERS	3.25% per annum, consisting of 2.25% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.	3.75% per annum, consisting of 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.
Individual Salary Growth		
PSRS	3.00% - 9.50%, depending on service and including 2.25% inflation, 0.25% additional inflation due to the inclusion of health care costs in pension earnings, 0.25% of real wage growth for productivity, and real wage growth for merit, promotion and seniority of 0.25% to 6.75%.	4.00% - 10.00%, depending on service and including 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.00% to 7.00%.
PEERS	4.00% - 11.00%, depending on service and including 2.25% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, 0.50% of real wage growth for productivity, and real wage growth for merit, promotion and seniority of 0.75% to 7.75%.	5.00% - 12.00%, depending on service and including 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.75% to 8.75%.
Cost-of-Living Increases		
PSRS	1.5% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase. The assumption increases from 1.00% to 1.50% over 10 years.	2.0% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase.
PEERS	1.5% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase. The assumption increases from 1.00% to 1.50% over 10 years.	2.0% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase.

Measurement Date	June 30, 2016	June 30, 2015															
Valuation Date	June 30, 2016	June 30, 2015															
Mortality Assumption																	
<i>Actives:</i>																	
PSRS	RP 2006 White Collar Employee Mortality Table, multiplied by an adjustment factor of 0.75 at all ages for both males and females, with static projection using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.															
PEERS	RP 2006 Total Dataset Employee Mortality Table, multiplied by an adjustment factor of 0.75 at all ages for both males and females, with static projection using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.															
<i>Non-Disabled Retirees, Beneficiaries and Survivors</i>																	
PSRS	RP 2006 White Collar Mortality Table multiplied by the adjustment factors shown in the table below, with static projections using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set back one year for both males and females, then projected to 2016 using Scale AA.															
	<table border="1"> <thead> <tr> <th>Age</th> <th>Males</th> <th>Females</th> </tr> </thead> <tbody> <tr> <td><60</td> <td>1.00</td> <td>1.00</td> </tr> <tr> <td>60-74</td> <td>0.89</td> <td>0.66</td> </tr> <tr> <td>75-89</td> <td>1.05</td> <td>0.91</td> </tr> <tr> <td>>=90</td> <td>1.05</td> <td>1.16</td> </tr> </tbody> </table>	Age	Males	Females	<60	1.00	1.00	60-74	0.89	0.66	75-89	1.05	0.91	>=90	1.05	1.16	
Age	Males	Females															
<60	1.00	1.00															
60-74	0.89	0.66															
75-89	1.05	0.91															
>=90	1.05	1.16															
PEERS	RP 2006 Total Dataset Mortality Table multiplied by the adjustment factors shown in the table below, with static projections using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set forward one year for males and no set back/forward for females, then projected to 2016 using Scale AA.															
	<table border="1"> <thead> <tr> <th>Age</th> <th>Males</th> <th>Females</th> </tr> </thead> <tbody> <tr> <td><60</td> <td>1.00</td> <td>1.00</td> </tr> <tr> <td>60-74</td> <td>1.49</td> <td>0.77</td> </tr> <tr> <td>75-89</td> <td>1.27</td> <td>1.03</td> </tr> <tr> <td>>=90</td> <td>1.16</td> <td>1.04</td> </tr> </tbody> </table>	Age	Males	Females	<60	1.00	1.00	60-74	1.49	0.77	75-89	1.27	1.03	>=90	1.16	1.04	
Age	Males	Females															
<60	1.00	1.00															
60-74	1.49	0.77															
75-89	1.27	1.03															
>=90	1.16	1.04															
<i>Disabled Retirees:</i>	RP 2006 Disabled Retiree Mortality Table, with static projections using the 2014 SSA Improvement Scale to 2028.	RP 2000 Disabled Mortality Table															

Sensitivity of Net Pension Liability

The sensitivity of the net pension liability of employers to changes in the discount rate is presented below. The net pension liability of employers calculated using the discount rate of 7.75% is presented as well as what the employers' net pension liability would be using a discount rate that is 1.0% lower (6.75%) or 1.0% higher (8.75%) than the current rate.

		1% Decrease (6.75%)	Current Rate (7.75%)	1% Increase (8.75%)
PSRS	Net Pension Liability (Asset)	\$ 12,622,752,591	\$ 7,440,648,830	\$ 3,125,760,063
PEERS	Net Pension Liability (Asset)	\$ 1,395,289,127	\$ 802,335,282	\$ 304,701,076

Long-Term Expected Rate of Return

The long-term expected rate of return on investments was determined in accordance with Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. ASOP No. 27 provides guidance on the selection of an appropriate assumed rate of return. The long-term expected rate of return on the Systems' investments was determined using a building-block method in which best-estimate ranges of expected future real rates of returns (expected returns, net of investment expense 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. Best estimates of arithmetic real rates of return for each major asset class included in the Systems' target allocation as of June 30, 2016 are summarized below along with the long term geometric return. Geometric return (also referred to as the time weighted return) is considered standard practice within the investment management industry. Geometric returns represent the compounded rate of growth of a portfolio. The method eliminates the effects created by cashflows.

Asset Class	Target Asset Allocation	Long-term Expected Real Return Arithmetic Basis	Weighted Long-term Expected Real Return Arithmetic Basis
U.S. Public Equity	27.0 %	5.16 %	1.39 %
Public Credit	7.0 %	2.17 %	0.15 %
Hedged Assets	6.0 %	4.42 %	0.27 %
Non-U.S. Public Equity	15.0 %	6.01 %	0.90 %
U.S. Treasuries	16.0 %	0.96 %	0.15 %
U.S. TIPS	4.0 %	0.80 %	0.03 %
Private Credit	4.0 %	5.60 %	0.22 %
Private Equity	12.0 %	9.86 %	1.18 %
Private Real Estate	9.0 %	3.56 %	0.32 %
Total	<u>100.0 %</u>		<u>4.61 %</u>
		Inflation	<u>2.25 %</u>
		Long term arithmetical nominal return	<u>6.86 %</u>
		Effect of covariance matrix	<u>0.89 %</u>
		Long term expected geometric return	<u>7.75 %</u>

The long-term expected rate of return used to measure the total pension liability was 7.75% as of June, 30, 2016, and is consistent with the long-term expected geometric return on plan investments. The actuarial assumed rate of return was 8.0% from 1980 through fiscal year 2016. The Board of Trustees adopted a new actuarial assumed rate of return of 7.75% based on the actuarial experience studies and asset-liability study conducted during the current year. The projection of cash flows used to determine the discount rate assumed that employer contributions would be made at the actuarially calculated rate computed in accordance with assumptions and methods stated in the funding policy adopted by the Board of Trustees, which requires payment of the normal cost and amortization of the unfunded actuarially accrued liability in level percent of employee payroll installments over 30 years utilizing a closed period, layered approach. Based on this assumption, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

Note 6 – Retirement Plans

Section 401(a) Defined Benefit Plan

All full-time System employees holding valid Missouri educator certificates are covered by PSRS. All other eligible employees are members of PEERS. Both Systems provide retirement and disability benefits, annual cost-of-living adjustments and death benefits to plan members and beneficiaries. Chapter 169 RSMo contains the statutory provisions of both Systems.

PSRS members were required to contribute 14.5% of their annual covered salary during fiscal years 2016, 2015 and 2014. PSRS, as the employer, was required to match that amount. The contribution rate is set each year by the Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions set in Section 169.030 RSMo. Employer contributions to PSRS totaled \$34,685 for the 2016 fiscal year, \$24,712 for the 2015 fiscal year and \$24,975 for the 2014 fiscal year. The amounts for these years are equal to the required contributions. PEERS members were required to contribute 6.86% of their annual covered salary during fiscal years 2016, 2015 and 2014. PSRS, as the employer, was required to match that amount. The contribution rate is set each year by the Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions in Section 169.620 RSMo. Employer contributions to PEERS totaled \$707,492 for the 2016 fiscal year, \$669,966 for the 2015 fiscal year and \$625,876 for the 2014 fiscal year. The amounts for these years are equal to the required contributions.

PSRS and PEERS, as the administrators for the defined pension plans, are also participating employers of the Systems. The administrative expenses of the Systems are included in the deductions to the Systems' fiduciary net position. While the employer contributions of the other participating employers are funded from outside revenue sources, the employer contributions of PSRS and PEERS are funded from sources already recognized as revenues, such as earnings on plan investments or contributions paid by the other participating employers. Attempting to allocate a portion of the net pension liability to PSRS and PEERS would result in an allocation of the net pension liability to the other participating employers.

Accordingly, PSRS and PEERS will exclude its contributions from the employer proportionate share calculation for the reporting of a net pension liability, by assigning itself a proportionate share of 0%. This exclusion in essence shifts the portion of the net pension liability that would accrue to PSRS and PEERS to the other participating employers.

Section 457 Deferred Compensation Plan

A voluntary Section 457 deferred compensation plan is administered to provide additional retirement benefits for employees. The plan provides for employer-matching contributions up to a set maximum. The total contributions are subject to the limitations established in IRC Section 457. The Board of Trustees has authority to establish the employer contribution levels. For most employees, the System will match \$50 plus 0.52% of salary per month. For certain employees, the System will make employer-paid contributions of \$18,000 per year plus \$6,000 in catch up contributions, if eligible. This is governed by individual employment contracts as approved by the Board of Trustees.

All employees immediately vest in the employer-matching and employer-paid contributions. Employer-matching contributions totaled \$106,641 and employer-paid contributions totaled \$66,000 for the 2016 fiscal year. Employee contributions totaled \$329,776 for the 2016 fiscal year.

Maintenance of individual member accounts and custody of assets have been contracted to a third-party administrator and investment custodian. Total contributions are sent directly to the third-party administrator by the employer. Employees can self-direct investments of their contributions and their respective share of matching contributions in a number of investment options. Because the System does not hold the plan's assets and does not have significant administrative responsibilities, the plan's assets and changes in net assets are not reported in the Systems' financial statements.

Note 7 – Other Post-Employment Benefit Plans

Post-Employment Staff Retiree Healthcare Plan

Plan Description and Funding Policy – The Public School Retirement System of Missouri Staff Retiree Healthcare Program (SRHP) is a single-employer defined benefit other post-employment benefit (OPEB) plan administered by PSRS. SRHP provides a healthcare premium implicit rate subsidy to eligible staff retirees and their dependents provided they pay 100% of the blended healthcare premium. The blended healthcare premium is based on all active and retired employees. Retiree healthcare benefits are funded on a pay-as-you-go basis, with premiums determined annually. The PSRS/PEERS Board of Trustees determines the funding of benefits and any benefit amendments. There is no continuing obligation to provide benefits beyond each calendar year. SRHP does not issue a stand-alone public financial report.

Annual OPEB Cost and Net OPEB Obligation – PSRS’ annual OPEB cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of Governmental Accounting Standards

Board (GASB) Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years.

PSRS’ annual OPEB cost, the amount actually contributed to the plan and changes in the net OPEB obligation are as follows:

Annual required contribution	\$ 321,800
Interest on net OPEB obligation	56,000
Amortization of net OPEB obligation	(55,000)
Annual OPEB cost	322,800
Contributions made	67,600
Increase in net OPEB obligation	255,200
Net OPEB obligation - beginning of year	1,697,600
Net OPEB obligation - end of year	<u>\$ 1,952,800</u>

PSRS’ annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year 2016 and the two preceding years are as follows:

Fiscal Year Ended	Annual OPEB Cost (AOC)	% of AOC Contributed	Net OPEB Obligation
6/30/14	\$ 316,900	20.1%	\$ 1,452,400
6/30/15	\$ 314,800	22.1%	\$ 1,697,600
6/30/16	\$ 321,800	20.1%	\$ 1,952,800

Funded Status and Funding Progress – SRHP’s funded status and funding progress are summarized below:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Payroll ((b-a)/c)
6/30/16	\$ -	\$1,558,000	\$1,558,000	0.0%	\$9,651,600	16.1%

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and healthcare cost trends. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Actuarial Method and Assumptions – Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarially accrued liabilities and the actuarial value of assets, consistent with the long-term perspectives of the calculations.

In the June 30, 2016 actuarial valuation, the following assumptions and method were used:

Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	No Assets (pay-as-you-go)
Amortization Method	Level Percent Open
Remaining Amortization Period	30 Years
Actuarial Assumptions:	
Investment Rate of Return	3.3% per year for June 30, 2015 and prior years 7.75% per year effective June 30, 2016
Wage Inflation	3.5% per year per year for June 30, 2015 and prior years 3.25% per year effective June 30, 2016
Healthcare Trend	7.0% in fiscal year 2016, decreasing by one-half percentage point per year to an ultimate of 4.5% in fiscal year 2021 and after

Post-Employment Health Plan

PSRS maintains a Post-Employment Health Plan (“PEHP”) for employees. Upon termination, an employee will receive payment at the rate of one day of pay for each two days of accrued sick leave up to 100 days of accrued sick leave (50 days paid). Any days above 100 will be forfeited. All payments under the PEHP in excess of \$1,000 will be transferred into a PEHP account which can be used to pay health insurance premiums for the employee or dependent at any time in the future. If an employee is retiring, the payments can be transferred back to PSRS on a monthly basis to cover the cost of health insurance for the retiree. The amount paid into the PEHP was \$71,611 for five employees during 2016.

Note 8 – Risk Management

The Systems are exposed to various risks of loss related to natural disasters, errors and omissions, loss of assets, torts, etc. The Systems have 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.

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

Note 9 – Commitments and Contingencies

Commitments to the future purchase of investments at June 30, 2016 totaled \$2,147,826,551.

Total unfunded capital commitments to private real estate, private equity and other alternative investments totaled approximately \$3.6 billion as of June 30, 2016. The unfunded commitments are not recorded in the Statements of Fiduciary Net Position.

As discussed in Note 4 – *Deposits, Investments and Securities Lending Program*, the System's custodial bank is authorized to act as the Systems' agent regarding security lending transactions. The required collateral can then be invested in collective investment pools, which are governed by Trust agreements. The Systems and their previous custodial bank were in dispute regarding the terms of the Trust agreement for the Quality D Short-Term Investment Fund (Quality D Fund). The previous custodial bank believed the Trust Agreement provided them the ability to re-value the Systems' investments in the Quality D Fund based on a series of prior, System authorized, Custodial bank approved, redemptions. The Systems strongly contested such action. On October 14, 2009, the custodial bank revalued the Systems' investments in the Quality D Fund by reducing the value by approximately \$96 million. The Systems were then provided their revalued portion of the Quality D Fund as an in-kind distribution. The in-kind distribution was utilized to fund a customized collective investment pool to facilitate securities lending activity. The revaluation was based on net asset values as of October 13, 2009.

The Systems strongly opposed such action and filed a lawsuit in Cole County, Missouri Circuit Court against the custodial bank on September 18, 2009 in an attempt to prevent the custodial bank from taking such action. The Systems proceeded with litigation to recover any amounts lost as a result of the custodial bank's action.

During the current year, the Systems' and former custodial bank reached an out of court settlement that required the former custodial bank to pay the Systems \$123 million. Upon receipt of the settlement, the Systems' dismissed their lawsuit previously filed in Cole County, Missouri Circuit Court.

The Systems terminated their custodial relationship with the previous custodian on October 1, 2010.

Certain other legal proceedings are pending with PSRS and PEERS arising from normal activities. Although unable to predict the outcome of these matters, the Systems believe the final outcome of these actions will not have a material adverse effect on the Systems' financial statements.

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri
Required Supplementary Information
Schedules of Employers' Net Pension Liability

Public School Retirement System of Missouri

Year Ended	Total Pension Liability (TPL) (a)	Plan Fiduciary Net Position - Restricted for Pensions (b)	Net Pension Liability (NPL) (a - b)	Plan Fiduciary Net Position as a % of TPL (b/a)	Covered Employee Payroll (c)	Employers' NPL as a % of Covered Payroll ((b-a)/c)
6/30/14	\$ 38,483,183,932	\$ 34,380,608,560	\$ 4,102,575,372	89.3%	\$ 4,425,567,630	92.7%
6/30/15	40,610,539,616	34,837,679,505	5,772,860,111	85.8%	4,508,241,581	128.1%
6/30/16	41,744,618,662	34,303,969,832	7,440,648,830	82.2%	4,556,137,282	163.3%

Public Education Employee Retirement System of Missouri

Year Ended	Total Pension Liability (TPL) (a)	Plan Fiduciary Net Position - Restricted for Pensions (b)	Net Pension Liability (NPL) (a - b)	Plan Fiduciary Net Position as a % of TPL (b/a)	Covered Employee Payroll (c)	Employers' NPL as a % of Covered Payroll ((b-a)/c)
6/30/14	\$ 4,211,488,832	\$ 3,846,322,886	\$ 365,165,946	91.3%	\$ 1,442,700,979	25.3%
6/30/15	4,512,316,979	3,983,410,821	528,906,158	88.3%	1,469,771,528	36.0%
6/30/16	4,809,665,957	4,007,330,675	802,335,282	83.3%	1,519,081,146	52.8%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri

Required Supplementary Information
Schedules of Employer Contributions

Public School Retirement System of Missouri

Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Excess/ (Deficiency) ¹	Actual Covered Member Payroll	Contributions as a Percentage of Covered Payroll
2007	\$ 644,969,214	\$ 472,216,630	\$(172,752,584)	\$ 3,935,138,583	12.00%
2008	656,347,298	521,241,501	(135,105,797)	4,169,932,008	12.50%
2009	669,643,988	563,454,487	(106,189,501)	4,334,265,285	13.00%
2010	658,161,150	594,326,122	(63,835,028)	4,402,415,719	13.50%
2011	684,366,766	594,732,137	(89,634,629)	4,248,086,693	14.00%
2012	720,303,976	620,214,231	(100,089,745)	4,277,339,524	14.50%
2013	507,232,268	634,040,335	126,808,067	4,372,691,966	14.50%
2014	608,459,393	643,989,869	35,530,476	4,441,309,441	14.50%
2015	666,438,984	656,924,899	(9,514,085)	4,530,516,545	14.50%
2016	643,155,536	669,953,683	26,798,147	4,620,370,228	14.50%

Public Education Employee Retirement System of Missouri

Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Excess/ (Deficiency) ¹	Actual Covered Member Payroll	Contributions as a Percentage of Covered Payroll
2007	\$ 89,945,503	\$ 69,235,160	\$(20,710,343)	\$ 1,204,089,739	5.75%
2008	90,727,016	77,988,839	(12,738,177)	1,299,813,983	6.00%
2009	96,775,289	85,915,562	(10,859,727)	1,374,648,992	6.25%
2010	95,560,084	91,478,725	(4,081,359)	1,407,365,000	6.50%
2011	90,816,155	90,816,155	-	1,369,776,094	6.63%
2012	95,094,785	95,094,785	-	1,386,221,356	6.86%
2013	87,013,816	97,059,313	10,045,497	1,414,858,790	6.86%
2014	98,497,846	100,699,735	2,201,889	1,467,926,166	6.86%
2015	105,739,092	103,624,310	(2,114,782)	1,510,558,455	6.86%
2016	104,011,593	106,654,638	2,643,045	1,554,732,332	6.86%

¹The annual statutory increase in the total contribution rate may not exceed 1% of pay for PSRS and 0.5% of pay for PEERS. The limitation on contribution increases resulted in a deficiency for some of the years presented. Contributions were funded to the maximum statutory limit each year.

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri

Required Supplementary Information
Schedules of Investment Returns

Year ended June 30:	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of all investment expenses	1.6%	4.3%	16.7%
Time-weighted rate of return, net of all investment expenses	1.6%	4.3%	16.7%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

**Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri**
Notes to the Schedules of Required Supplementary Information

The information presented in the required supplementary schedule was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows. For added clarity information regarding the prior year valuation is also included.

Changes in benefit terms:

PSRS: The 25-and-Out and 2.55% provisions were extended in 2007 through 2013. In 2013 the state legislature provided a permanent extension of the 25-and-Out provision and extended the 2.55% provision to 2014.

PEERS: The 25-and-Out provisions was extended in 2007 through 2013. In 2013 the state legislature provided a permanent extension of the 25-and- Out provision.

Changes of assumptions:

In 2006, 2011 and 2016 payroll growth, salary increases, assumed life expectancies and mortality were adjusted to more closely reflect actual experience. In 2011, the inflation rate was adjusted to 2.5% from 3.25% and annual cost-of-living adjustments were calculated in accordance with the then adopted funding policy. In 2016, the inflation rate was adjusted to 2.25% from 2.5%, the investment rate of return from 8.00% to 7.75% and annual cost-of-living adjustments were calculated in accordance with the funding policy as amended in June 2016. During 2016, minor revisions were made to other actuarially assumptions including but not limited to, retirement rates, withdraw rates, etc. The 2016 assumption changes were a result of an actuarial experience study conducted during the year.

Actuarially Methods and Assumptions:

The actuarially determined contribution rates in the schedule of employers' contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule.

Actuarial Cost Method

Entry Age Normal Level Percent of Payroll

Amortization Method

Closed, level percent for 30 years

Remaining amortization period

PSRS 24.6 years

PEERS 24.9 years

Asset valuation method

5-year smoothing of actual returns above or below expected returns

Measurement Date

June 30, 2016

June 30, 2015

Valuation Date

June 30, 2016

June 30, 2015

Investment Rate of Return

7.75%

8.00%

Inflation

2.25%

2.50%

Total Payroll Growth

PSRS 2.75% per annum, consisting of 2.25% inflation, 0.25% additional inflation due to the inclusion of health care costs in pension earnings, and 0.25% of real wage growth. 3.50% per annum, consisting of 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.

PEERS 3.25% per annum, consisting of 2.25% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth. 3.75% per annum, consisting of 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.

Individual Salary Growth

PSRS 3.00% - 9.50%, depending on service and including 2.25% inflation, 0.25% additional inflation due to the inclusion of health care costs in pension earnings, 0.25% of real wage growth for productivity, and real wage growth for merit, promotion and seniority of 0.25% to 6.75%. 4.00% - 10.00%, depending on service and including 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.00% to 7.00%.

PEERS 4.00% - 11.00%, depending on service and including 2.25% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, 0.50% of real wage growth for productivity, and real wage growth for merit, promotion and seniority of 0.75% to 7.75%. 5.00% - 12.00%, depending on service and including 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.75% to 8.75%.

Cost-of-Living Increases

PSRS 1.5% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase. The assumption increases from 1.00% to 1.50% over 10 years. 2.0% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase.

PEERS 1.5% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase. The assumption increases from 1.00% to 1.50% over 10 years. 2.0% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase.

Public School Retirement System of Missouri and
 Public Education Employee Retirement System of Missouri
 Notes to the Schedules of Required Supplementary Information - Continued

Measurement Date	June 30, 2016	June 30, 2015															
Valuation Date	June 30, 2016	June 30, 2015															
Mortality Assumption																	
<i>Actives:</i>																	
PSRS	RP 2006 White Collar Employee Mortality Table, multiplied by an adjustment factor of 0.75 at all ages for both males and females, with static projection using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.															
PEERS	RP 2006 Total Dataset Employee Mortality Table, multiplied by an adjustment factor of 0.75 at all ages for both males and females, with static projection using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.															
<i>Non-Disabled Retirees, Beneficiaries and Survivors:</i>																	
PSRS	RP 2006 White Collar Mortality Table multiplied by the adjustment factors shown in the table below, with static projections using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set back one year for both males and females, then projected to 2016 using Scale AA.															
	<table border="0"> <thead> <tr> <th style="text-align: left;">Age</th> <th style="text-align: center;">Males</th> <th style="text-align: center;">Females</th> </tr> </thead> <tbody> <tr> <td><60</td> <td style="text-align: center;">1.00</td> <td style="text-align: center;">1.00</td> </tr> <tr> <td>60-74</td> <td style="text-align: center;">0.89</td> <td style="text-align: center;">0.66</td> </tr> <tr> <td>75-89</td> <td style="text-align: center;">1.05</td> <td style="text-align: center;">0.91</td> </tr> <tr> <td>>=90</td> <td style="text-align: center;">1.05</td> <td style="text-align: center;">1.16</td> </tr> </tbody> </table>	Age	Males	Females	<60	1.00	1.00	60-74	0.89	0.66	75-89	1.05	0.91	>=90	1.05	1.16	
Age	Males	Females															
<60	1.00	1.00															
60-74	0.89	0.66															
75-89	1.05	0.91															
>=90	1.05	1.16															
PEERS	RP 2006 Total Dataset Mortality Table multiplied by the adjustment factors shown in the table below, with static projections using the 2014 SSA Improvement Scale to 2028.	RP 2000 Mortality Table set forward one year for males and no set back/forward for females, then projected to 2016 using Scale AA.															
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Age	Males	Females															
<60	1.00	1.00															
60-74	1.49	0.77															
75-89	1.27	1.03															
>=90	1.16	1.04															
<i>Disabled Retirees:</i>	RP 2006 Disabled Retiree Mortality Table, with static projections using the 2014 SSA Improvement Scale to 2028.	RP 2000 Disabled Mortality Table															

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri
Required Supplementary Information
Staff Retiree Health Plan – Defined Benefit OPEB Plan

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Payroll ((b-a)/c)
6/30/2014	\$ -	\$ 3,340,100	\$ 3,340,100	0.0%	\$ 8,803,200	37.9%
6/30/2015	\$ -	\$ 3,422,000	\$ 3,422,000	0.0%	\$ 9,046,100	37.8%
6/30/2016	\$ -	\$ 1,558,000	\$ 1,558,000	0.0%	\$ 9,651,600	16.1%

Schedule of Employer Contributions

Year Ended	Annual Required Contribution (ARC)	Employer Contributions	Percentage Contributed
6/30/2014	\$ 316,200	\$ 63,800	20.2%
6/30/2015	\$ 314,000	\$ 69,600	22.2%
6/30/2016	\$ 321,800	\$ 67,600	21.0%

Notes to the Schedules of Required Supplementary Information

The information presented in the required supplementary schedule was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Actuarial cost method	Entry Age Normal
Actuarial value of assets	No Assets (pay-as-you-go)
Amortization method	Level Percent Open
Remaining amortization period	30 Years
Actuarial assumptions:	
Investment rate of return	3.3% per year for June 30, 2015 and prior years 7.75% per year effective June 30, 2016
Wage inflation	3.5% per year per year for June 30, 2015 and prior years 3.25% per year effective June 30, 2016
Healthcare trend	7.0% in fiscal year 2016, decreasing by one-half percentage point per year to an ultimate of 4.5% in fiscal year 2021 and after

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri

Schedules of Administrative Expenses
for the year ended June 30, 2016

	PSRS	PEERS	Combined Totals
Personnel services	\$ 6,506,396	\$ 4,017,256	\$ 10,523,652
Professional services			
Actuarial services	462,121	256,002	718,123
Legal services	215,670	60,057	275,727
Financial audit services	58,634	35,937	94,571
Other consultants	73,573	18,591	92,164
Technology consulting	32,594	19,977	52,571
Legislative consulting	27,900	17,100	45,000
Insurance consulting	3,720	2,280	6,000
Total professional services	874,212	409,944	1,284,156
Communications			
Information and publicity	153,013	97,354	250,367
Postage	424,004	278,335	702,339
Member education	15,359	8,624	23,983
Telephone	33,488	20,518	54,006
Total communications	625,864	404,831	1,030,695
Miscellaneous			
Building and utilities	159,091	97,507	256,598
Board of Trustees election	71,746	43,974	115,720
Insurance	80,430	49,296	129,726
Office	1,979,986	1,213,540	3,193,526
Staff development	148,936	91,322	240,258
Miscellaneous	172,173	84,599	256,772
Total miscellaneous	2,612,362	1,580,238	4,192,600
Depreciation expense	928,789	569,258	1,498,047
Total administrative expenses	<u>\$ 11,547,623</u>	<u>\$ 6,981,527</u>	<u>\$ 18,529,150</u>

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri

Schedules of Investment Expenses
for the year ended June 30, 2016

	PSRS	PEERS	Combined Totals
Investment management expenses			
U.S. Treasuries and TIPS	\$ 3,976,010	\$ 441,779	\$ 4,417,789
U.S. public equities	44,181,671	4,909,075	49,090,746
Non-U.S. public equities	17,860,434	1,984,493	19,844,927
Public debt	3,397,917	377,546	3,775,463
Private equity	115,355,755	12,817,446	128,173,201
Private credit	3,004,601	333,845	3,338,446
Private real estate	46,521,003	5,169,000	51,690,003
Hedged assets	67,211,258	7,467,918	74,679,176
Total investment management expenses	301,508,649	33,501,102	335,009,751
Investment consultant fees	4,168,219	463,135	4,631,354
Custodial bank fees	1,001,570	111,286	1,112,856
Investment legal and staff expenses	10,091,917	1,150,630	11,242,547
Commission recapture income	(121,445)	(14,035)	(135,480)
Total investment expenses	\$ 316,648,910	\$ 35,212,118	\$ 351,861,028
Security lending expenses			
Agent fees	\$ 1,496,176	\$ 166,242	\$ 1,662,418
Broker rebates	(5,788,217)	(643,135)	(6,431,352)
Total security lending expenses (income)	\$ (4,292,041)	\$ (476,893)	\$ (4,768,934)

Public School Retirement System of Missouri and
Public Education Employee Retirement System of Missouri

Schedules of Professional Services
for the year ended June 30, 2016

	PSRS	PEERS	Combined Totals
Actuarial services	\$ 462,121	\$ 256,002	\$ 718,123
Legal expenses	215,670	60,057	275,727
Financial audit services	58,634	35,937	94,571
Other consulting	73,573	18,591	92,164
Technology consulting	32,594	19,977	52,571
Legislative consulting	27,900	17,100	45,000
Insurance consulting	3,720	2,280	6,000
Total fees	\$ 874,212	\$ 409,944	\$ 1,284,156