Government accounting standards require PSRS/PEERS-covered employers to recognize their long-term obligation for pension benefits as a liability on their annual financial statements. For many employers, this is a large task. The Systems partner with our covered-employers to ensure they have all the required information.

Annually, PSRS/PEERS works closely with our employers to verify the accuracy of their retirement reporting for the school year. Then, we provide each employer with a financial reporting package regarding their participation in the Systems.

Financial Section

Independent Auditors' Report

WILLIAMS KEEPERS LLC
CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

2005 West Broadway, Suite 100, Columbia, MO 65203
OFFICE (573) 442-6171 FAX (573) 777-7800
3220 West Edgewood, Suite E, Jefferson City, MO 65109
OFFICE (573) 635-6196 FAX (573) 644-7240
www.williamskeepers.com

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, 2021, 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 fiduciary net position of the Public School and Public Education Employee Retirement Systems of Missouri as of June 30, 2021, and the respective changes in fiduciary net position for the year then ended, in conformity with U.S. generally accepted accounting principles.

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

Independent Auditors' Report, continued

Other Matters

Prior Year Information

The prior year combined total information has been derived from the Systems' 2020 financial statements and, in our report dated November 20, 2020, we expressed unmodified opinions on the respective financial statements of the Systems' fiduciary net position.

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 19-25, 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 52-57, and schedules related to the defined benefit OPEB plan (schedule of changes in the net OPEB liability and related ratios) on page 58 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 59 through 60 are presented for purposes of additional analysis and are not a required part of the financial statements.

The additional information presented on pages 59 through 60 is the responsibility of management and was derived from and relate 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 59 through 60 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.

Williams-Keepers LLC

November 22, 2021

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, 2021. We encourage you to consider the information presented here in conjunction with the *Transmittal Letter* included in the *Introductory Section* and the financial statements and other information presented in the *Financial Section* of this *Annual Comprehensive Financial Report* (ACFR).

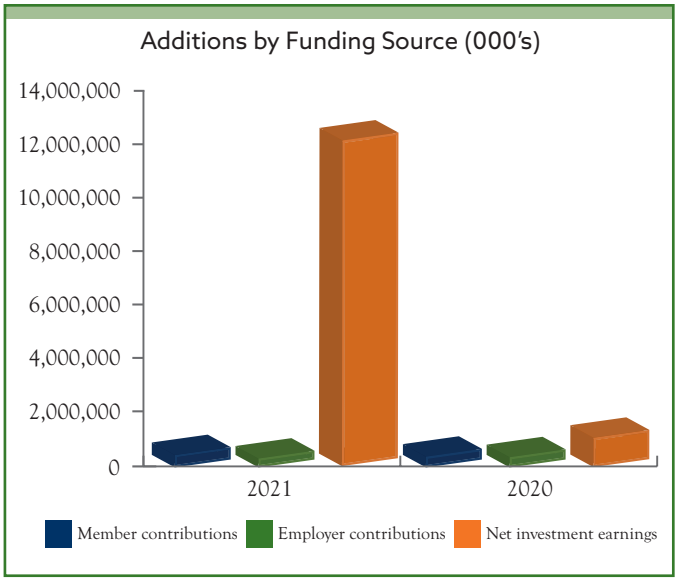
Financial Highlights

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

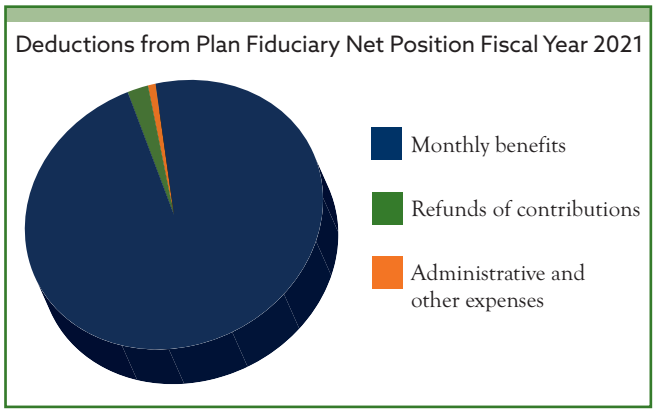
- The Board of Trustees adopts actuarial assumptions, each of which individually represents a reasonable long-term estimate of anticipated experience for the Systems, derived from experience studies conducted every fifth year. The most recent comprehensive experience studies were completed during fiscal year 2021. All economic and demographic assumptions were reviewed and updated, where appropriate, based on the results of the studies and effective with the June 30, 2021 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, 2021, PSRS' fiduciary net position as a percentage of the total pension liability increased to 95.8% from 82.0% for the prior year. PSRS' net pension liability approximated $2.2 billion as of June 30, 2021. As of June 30, 2021, PEERS' fiduciary net position as a percentage of the total pension liability increased to 98.4% from 84.1% for the prior year. PEERS' net pension liability approximated $107.7 million as of June 30, 2021. The net pension liability is calculated utilizing the fair value of assets in accordance with Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*, for accounting presentation purposes.
- The pre-funded status of the Systems is measured as the ratio of assets available for benefits to a benefit liability measure for the Systems. 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. The pre-funded ratio uses 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 Statement No. 67 and funding calculations. As of June 30, 2021, the pre-funded ratios for funding purposes were 85.2% for PSRS and 87.7% for PEERS.
- The fiscal year 2021 investment performance was one of the strongest absolute and relative fiscal year returns that the Systems have achieved. The Systems' assets increased through investment earnings by $12.7 billion from the previous year with a total fund performance of 28.7% (28.5% net of all investment expenses and fees). The total plan return, net of all investment expenses and fees, exceeded both the policy benchmark return of 22.9% and the long-term investment goal (actuarially assumed return) of 7.5% as a result of the Systems' strong investment program paired with substantial investment earnings in the equity market. Over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objective. The annualized investment return for the Systems is 8.7% (8.5% net of all investment expenses and fees) over the last 30 years.
- The Systems' investment returns for fiscal year 2021 and for the three-year, five-year and ten-year time periods then ended exceeded the median 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 consistently higher returns (and longer-term investment returns) while taking substantially less risk than the policy benchmark (as measured by standard deviation) and less risk than most comparable public funds over all time periods.
- Cost-sharing, defined-benefit, retirement systems such as the Systems have a long-term perspective on financial activities. The Systems' primary

responsibility is to assure that sufficient funds will be available to provide retirement, disability and survivor benefits to current and future members. Condensed Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position are provided for each System on the following pages.

- Pension benefits are funded through a combination of member and employer contributions and investment income. The following chart depicts the combined amount of funding received by the Systems from each source for the years ended June 30, 2021 and 2020.



- Expenses are incurred for the sole purpose for which the Systems were created: the payment of benefits to the Systems' membership and their beneficiaries. Included in the deductions from fiduciary net position were monthly benefit payments, refunds of contributions due to member terminations or deaths and administrative and other expenses. The pie chart depicts the combined Systems' deductions from Plan Fiduciary Net Position for the year ended June 30, 2021.



- The combined net position of the Systems increased by $11.2 billion. The net position of PSRS increased by $9.9 billion while the net position of PEERS increased by $1.3 billion.
- Total revenues for fiscal year 2021 were comprised of contribution revenue of $1.79 billion and investment gains of $12.7 billion, compared to contribution revenue of $1.74 billion and investment gains of $1.64 billion for fiscal year 2020.
- Expenses increased 3.3% over the prior year from $3.2 billion to $3.3 billion. Retirement benefits increased by $105.7 million and member refunds decreased by $2.5 million from the prior year, while administrative expenses increased by $ 0.4 million during the same time period.

Overview of the Financial Statements

The ACFR reflects the activities of the Systems as reported in Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position (the Systems' financial statements). 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*, as amended. This discussion and analysis are intended to serve as an introduction to the financial section of the ACFR. The financial section of the ACFR 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 Systems' assets, deferred outflows, liabilities, deferred inflows and resulting net position, where assets plus deferred outflows less liabilities and deferred inflows is 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 28 through 51.

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.
- 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.
- The Schedules of Employer Contributions present historical trend information about the actuarially determined contributions of employers and the actual contributions made by employers.
- The Schedules of Investment Returns present historical annual money-weighted rate of returns.
- The Schedules of Changes in the Net OPEB Liability and Related Ratios include historical trend information about the defined benefit other post-employment benefit (OPEB) plan from a long-term, ongoing perspective.
- 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 2021. 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)

	2021	2020	Change
Cash & investments	$ 51,032,956	$40,849,436	$10,183,520
Receivables	6,098,699	2,346,619	3,752,080
Other	33,086	27,516	5,570
Total assets	**57,164,741**	**43,223,571**	**13,941,170**
Deferred outflows of resources	**159**	**120**	**39**
Total liabilities	**6,544,243**	**2,513,222**	**4,031,021**
Deferred inflows of resources	**137**	**164**	**(27)**
Fiduciary net position	**$ 50,620,520**	**$40,710,305**	**$ 9,910,215**

Assets

Total assets of PSRS as of June 30, 2021 were $57.2 billion and were mostly comprised of cash, investments, investment sales receivables and contributions due from employers. Total assets increased by $13.9 billion or 32.3% from the prior year due to significant fiscal year 2021 investment earnings.

Liabilities

Total liabilities as of June 30, 2021, were $6.5 billion and were mostly comprised of payables from the purchase of investments and obligations under security lending arrangements. Total liabilities increased by $4.0 billion from the prior year. The increase was primarily due to an increase in investment purchases payable.

Deferred Outflows and Inflows of Resources

Deferred inflows and outflows are a result of the System's Post-Employment Healthcare Plan and are presented in accordance with GASB Statement No. 75.

Net Position

PSRS assets exceeded liabilities on June 30, 2021, by $50.6 billion. This was an increase of $9.9 billion from the 2020 net position. This increase was a direct result of significant investment earnings that totaled $11.3 billion for the year offset by benefit payments and other expenses which exceeded contribution revenue by $1.4 billion.

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

	2021	2020	Change
Additions			
Member contributions	$ 779,834	$ 757,917	$ 21,917
Employer contributions	745,638	724,995	20,643
Investment income	11,291,593	1,457,327	9,834,266
Other	128	192	(64)
Total additions	**12,817,193**	**2,940,431**	**9,876,762**
Deductions			
Monthly benefits	2,844,612	2,758,726	85,886
Refunds of contributions	51,548	54,506	(2,958)
Administrative expenses	10,763	10,653	110
Other	55	-	55
Total deductions	**2,906,978**	**2,823,885**	**83,093**
Changes in fiduciary net position	**$ 9,910,215**	**$ 116,546**	**$ 9,793,669**

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 $42.6 million to $1.5 billion. This was a 2.9% increase over the prior year. Retirement contributions were calculated at 14.5% of retirement salary for each member during fiscal year 2021. The employer matched this amount. Contribution rates were unchanged from the prior year. An increased retirement salary base and the addition of new members resulted in the increase in contributions.

The net investment gain was $11.3 billion as compared to a net investment gain of $1.5 billion in 2020. The current year gains are reflective of a 28.5% net return on the Systems' diversified investment portfolio, compared to 3.7% in the prior year. 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. The *Investment Section* of this report contains additional information regarding investments and securities lending activity.

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 2021 were $2.9 billion, an increase of 2.9% over fiscal year 2020.

Benefit expenses increased by $85.9 million to $2.84 billion. This was a result of an overall increase of 1,485 monthly benefit recipients from the prior year end. There were no changes to the benefit formula during 2021. Refunds of contributions decreased by $2.9 million during the current year to a total of $51.5 million.

Administrative expenses increased by $0.1 million to $10.8 million due to increases in recruiting expenses, actuarial cost studies, computer consulting expenses and software services expenses offset by decreases in Board trustee election expenses and travel expenses. The cost of administrative items was charged 60% to PSRS and 40% to PEERS during the fiscal year (61% for PSRS and 39% for PEERS during fiscal year 2020) 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 2021. The employer was required to match that amount. PEERS members also contribute to Social Security.

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

	2021	2020	Change
Cash & investments	$ 6,511,616	$ 5,143,569	$ 1,368,047
Receivables	778,225	293,649	484,576
Other	7	7	-
Total assets	**7,289,848**	**5,437,225**	**1,852,623**
Deferred outflows of resources	106	77	29
Total liabilities	836,701	318,353	518,348
Deferred inflows of resources	91	105	(14)
Fiduciary net position	$ 6,453,162	$ 5,118,844	$ 1,334,318

Assets

Total assets of PEERS as of June 30, 2021 were $7.3 billion and were mostly comprised of cash, investments, investment sales receivables and contributions due from employers. Total assets increased by $1.9 billion or 34.0% from the prior year due to significant fiscal year 2021 investment earnings.

Liabilities

Total liabilities as of June 30, 2021 were $837.0 million and were mostly comprised of payables from the purchase of investments and obligations under security lending arrangements. Total liabilities increased by $518.3 million. The increase was primarily due to an increase in investment purchases payable.

Deferred Outflows and Inflows of Resources

Deferred inflows and outflows are a result of the System's Post-Employment Healthcare Plan and are presented in accordance with GASB Statement No. 75.

Net Position

PEERS assets exceeded liabilities on June 30, 2021 by $6.5 billion. This was an increase of $1.3 billion from the 2020 net position. This increase was a direct result of significant investment earnings that totaled $1.4 billion for the year offset by benefit payments and other expenses which exceeded contribution revenue by $100.0 million.

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

	2021	2020	Change
Additions			
Member contributions	$ 134,324	$ 131,336	$ 2,988
Employer contributions	126,877	124,545	2,332
Investment income	1,431,017	181,855	1,249,162
Total additions	**1,692,218**	**437,736**	**1,254,482**
Deductions			
Monthly benefits	329,422	309,658	19,764
Refunds of contributions	21,099	20,680	419
Administrative expenses	7,379	7,077	302
Other	-	1	(1)
Total deductions	**357,900**	**337,416**	**20,484**
Changes in fiduciary net position	**$1,334,318**	**$ 100,320**	**$1,233,998**

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 $5.3 million to $261.2 million. This was a 2.1% increase over the prior year. Retirement contributions were calculated at 6.86% of retirement salary for each member during fiscal year 2021. The employer matched this amount. Contribution rates were unchanged from the prior year. The increase in total contributions is attributable to a higher retirement salary base and the addition of new members.

The net investment gain was $1.4 billion as compared to a net investment gain of $181.9 million in 2020. The current year gains are reflective of a 28.5% net return on the Systems' diversified investment portfolio, as compared to 3.7% in the prior year. 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. The *Investment Section* of this report contains additional information regarding investments and securities lending activity.

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 2021 were $357.9 million, an increase of 6.1% over fiscal year 2020.

Benefit expenses increased by $19.8 million to $329.4 million. This was a result of an overall increase of 1,439 monthly benefit recipients from the prior year end. There were no changes to the benefit formula during 2021. Refunds of contributions increased by $0.4 million from the prior year.

Administrative expenses increased by $0.3 million due to increases in recruiting expenses, actuarial cost studies, computer consulting expenses and software services expenses offset by decreases in Board trustee election expenses and travel expenses. The cost of administrative items was charged 60% to PSRS and 40% to PEERS during the fiscal year (61% for PSRS and 39% for PEERS during fiscal year 2020) 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 Board of Trustees' revised the Actuarial Funding Policies at their June 8, 2021 Board meeting. The revisions incorporate the recommendations from the actuarial experience studies conducted during the current year. All economic and demographic assumptions were reviewed and updated, where appropriate, based on the results of the studies and the revisions are effective with the June 30, 2021 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 actuarial value of assets recognizes investments gains or losses over a period of five years to manage market volatility. Detailed information regarding the Systems' actuarial assumptions is included in the *Actuarial Section* of this report.

The actuarial assumed rate of return was 8.0% from 1980 through fiscal year 2016. The Board of Trustees first reduced the actuarial assumed rate of return to 7.75%, effective with the June 30, 2016 actuarial valuations and fiscal year 2017 investment performance measurement. The Board of Trustees has continually considered the funded status of the Systems, expectations of capital markets and other factors. Based on these considerations the Board of Trustees has reduced the risk profile of the plans with further reductions of the actuarial assumed rate of return as of June 30, 2017 (7.6%) and June 30, 2018 (7.5%). As part of the actuarial experiences studies, the Board of Trustees further reduced the risk profile by adopting a new actuarial assumed rate of return of 7.3%. The long-term investment objective of 7.3% is effective with the June 30, 2021 actuarial valuations and fiscal year 2022 investment performance measurement. Detailed information regarding the Systems' investment portfolio is included in the *Investment Section* of this report.

The Systems earned an investment return of 28.7% (28.5% net of all investment expenses and fees), exceeding the policy benchmark return of 22.9% by 580 basis points. The Systems' well-structured investment portfolio added $12.7 billion in total investment earnings to the growth of assets and $2.5 billion of investment earnings in excess of the policy benchmark. 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 8.5%, net of all fees and expenses.

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 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 fiscal year 2023 contribution rates remain unchanged from the fiscal year 2022 rates and were approved by the Board of Trustees at their October 25, 2021 meeting. The fiscal year 2023 contribution rate for PSRS remains 29.0%. The fiscal year 2023

contribution rate for PEERS remains 13.72%. The fiscal year 2023 contribution rates are in compliance with the PSRS/PEERS Board of Trustees' 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, 2021
with comparative totals for June 30, 2020

			Combined Totals	
	PSRS	PEERS	June 30, 2021	June 30, 2020
ASSETS				
Cash	$ 449,647,517	$ 63,172,123	$ 512,819,640	$ 542,128,176
Receivables				
Contributions	212,835,173	28,586,471	241,421,644	209,208,593
Accrued interest and dividends	79,861,759	10,181,904	90,043,663	90,246,960
Investment sales	5,805,210,475	739,456,258	6,544,666,733	2,339,897,452
Receivable from PEERS for allocated expenses	783,932	-	783,932	909,995
Other	7,234	2	7,236	4,941
Total receivables	6,098,698,573	778,224,635	6,876,923,208	2,640,267,941
Investments, at fair value				
U.S. Treasuries and TIPS	8,097,236,798	1,032,471,336	9,129,708,134	8,361,862,860
U.S. public equities	12,561,829,121	1,599,830,386	14,161,659,507	12,164,331,941
Non-U.S. public equities	8,209,446,741	1,046,478,208	9,255,924,949	6,874,027,563
Short-term investments	2,172,524,249	278,480,953	2,451,005,202	956,474,441
Public debt	1,851,654,774	236,102,602	2,087,757,376	2,047,085,822
Private equity	8,181,376,614	1,043,199,926	9,224,576,540	5,858,545,057
Private credit	1,280,182,251	163,234,880	1,443,417,131	774,497,818
Private real estate	3,974,171,203	506,742,974	4,480,914,177	3,926,360,180
Hedged assets	4,040,920,767	514,620,001	4,555,540,768	4,357,935,062
Total investments	50,369,342,518	6,421,161,266	56,790,503,784	45,321,120,744
Invested securities lending collateral	213,965,790	27,282,584	241,248,374	129,756,215
Prepaid expenses	61,056	7,370	68,426	93,443
Capital assets, net of accumulated depreciation	33,024,577	-	33,024,577	27,430,262
Total assets	57,164,740,031	7,289,847,978	64,454,588,009	48,660,796,781
DEFERRED OUTFLOW OF RESOURCES				
Outflows related to other post-employment benefit obligations	159,040	106,027	265,067	196,377
LIABILITIES				
Accounts payable	22,292,961	2,793,700	25,086,661	17,146,188
Interest payable	705,878	90,000	795,878	436,259
Securities lending collateral	213,948,973	27,280,440	241,229,413	129,713,565
Investment purchases	6,302,527,693	802,722,816	7,105,250,509	2,676,154,017
Payable to PSRS for allocated expenses	-	783,932	783,932	909,995
Accrued medical claims	111,600	74,400	186,000	55,000
Net other post-employment benefit obligation	2,636,537	1,757,691	4,394,228	4,129,741
Compensated absences	2,019,742	1,198,007	3,217,749	3,030,926
Total liabilities	6,544,243,384	836,700,986	7,380,944,370	2,831,575,691
DEFERRED INFLOW OF RESOURCES				
Inflows related to other post-employment benefit obligations	136,603	91,068	227,671	269,426
NET POSITION - RESTRICTED FOR PENSIONS	$ 50,620,519,084	$ 6,453,161,951	$ 57,073,681,035	$ 45,829,148,041

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, 2021
with comparative totals for the year ended June 30, 2020

			Combined Totals Year Ended	
	PSRS	PEERS	June 30, 2021	June 30, 2020
ADDITIONS				
Contributions				
Employer	$ 745,638,245	$ 126,877,255	$ 872,515,500	$ 849,540,201
Member	779,834,058	134,324,324	914,158,382	889,252,914
Total contributions	1,525,472,303	261,201,579	1,786,673,882	1,738,793,115
Investment income				
From investing activities:				
Net appreciation in fair value of investments	12,127,504,369	1,533,204,321	13,660,708,690	1,601,454,121
Interest from investments	181,407,543	22,971,747	204,379,290	246,607,656
Interest from bank deposits	7,911	1,153	9,064	174,779
Dividends	185,248,085	23,478,074	208,726,159	221,367,520
Total investment income	12,494,167,908	1,579,655,295	14,073,823,203	2,069,604,076
Less investment expenses	1,204,568,997	148,891,059	1,353,460,056	433,770,576
Net income from investing activities	11,289,598,911	1,430,764,236	12,720,363,147	1,635,833,500
From security lending activities:				
Security lending gross income	711,014	88,935	799,949	3,304,411
Net (depreciation) appreciation in fair value of security lending collateral	(21,050)	(2,638)	(23,688)	29,658
Less security lending activity expenses:				
Agent fees	570,385	72,729	643,114	640,710
Broker rebates (received) paid	(1,874,925)	(239,070)	(2,113,995)	(654,628)
Total security lending expenses	(1,304,540)	(166,341)	(1,470,881)	(13,918)
Net income from security lending activities	1,994,504	252,638	2,247,142	3,347,987
Total net investment income	11,291,593,415	1,431,016,874	12,722,610,289	1,639,181,487
Other income				
Miscellaneous income	127,584	93	127,677	191,840
Total other income	127,584	93	127,677	191,840
Total additions	12,817,193,302	1,692,218,546	14,509,411,848	3,378,166,442
DEDUCTIONS				
Monthly benefits	2,844,612,045	329,422,222	3,174,034,267	3,068,383,655
Refunds of contributions	51,547,720	21,098,668	72,646,388	75,186,149
Administrative expenses	10,763,071	7,379,216	18,142,287	17,730,301
Other expenses	55,549	363	55,912	776
Total deductions	2,906,978,385	357,900,469	3,264,878,854	3,161,300,881
Net increase in net position	9,910,214,917	1,334,318,077	11,244,532,994	216,865,561
NET POSITION - RESTRICTED FOR PENSIONS				
Beginning of year	40,710,304,167	5,118,843,874	45,829,148,041	45,612,282,480
End of year	$ 50,620,519,084	$ 6,453,161,951	$ 57,073,681,035	$ 45,829,148,041

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 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 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 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 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.

For a more detailed summary of benefits for the members of PSRS, refer to the *Summary Plan Description* in the *Actuarial Section* of this report.

Contributions – PSRS members were required to contribute 14.5% of their annual covered salary during fiscal year 2021. Employers were required to match the contributions made by employees. 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. 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, 2021:

Retirees and beneficiaries receiving benefits			66,080
Inactive members entitled to, but not yet receiving benefits			9,472
Active members:	Vested	61,542	
	Non-vested	17,402	
Total active members			78,944
Other inactive members and terminated accounts			9,080
Total			163,576

Employers – PSRS had 533 contributing employers during fiscal year 2021.

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 public 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 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.

For a more detailed summary of benefits for the members of PEERS, refer to the *Summary Plan Description* in the *Actuarial Section* of this report.

Contributions – PEERS members were required to contribute 6.86% of their annual covered salary during fiscal year 2021. Employers were required to match the contributions made by their employees. 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. 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, 2021:

Retirees and beneficiaries receiving benefits			34,671
Inactive members entitled to, but not yet receiving benefits			7,158
Active members:	Vested	26,844	
	Non-vested	22,728	
Total active members			49,572
Other inactive members and terminated accounts			34,090
Total			125,491

Employers – PEERS had 530 contributing employers during fiscal year 2021.

Note 2 – Summary of Significant Accounting Policies

Basis of Accounting

For financial reporting purposes, the Systems adhere to accounting principles generally accepted in the United States of America. The Systems apply all applicable pronouncements of the Governmental Accounting Standards Board (GASB).

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*, as amended. 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 extensive 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.

Cash

Cash includes cash on hand and 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, private 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. The estimated fair value of these investments may differ significantly from values that would have been updated had a ready market existed. The estimated fair values can be significantly affected by uncertainty and volatility in financial markets. Consequently, fair value estimates in such instances may be subject to wide variations.

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. Comprehensive footnote disclosure regarding this Statement is presented in Note 4 - *Deposits, Investments and Securities Lending Program.*

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, 2021. 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, 2020, from which the information was derived.

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

	2021
Designated for Members' Contributions (Member Reserves) – Accumulation of active and terminated member contributions plus interest.	$ 8,947,441,042
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.	32,740,718,973
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.	8,932,359,069
Net Position – Restricted For Pensions	$ 50,620,519,084

Public Education Employee Retirement System of Missouri

	2021
Designated for Members' Contributions (Member Reserves) – Accumulation of active and terminated member contributions plus interest.	$ 1,172,459,443
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.	3,430,561,254
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.	1,850,141,254
Net Position – Restricted For Pensions	$ 6,453,161,951

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 and deposits held by the custodial bank and operating balances held by the depository banks.

At June 30, 2021, the PSRS carrying amount of deposits at the depository bank was $7,478,279 and the bank balance was $3,487,220. 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 $5,013,974. An additional $6,251,828 was held in overnight repurchase agreements with a book value of $6,251,828. The overnight repurchase agreements were collateralized with U.S. agency securities held by a third-party institution in the System's name totaling $6,251,828.

At June 30, 2021, the PEERS carrying amount of deposits at the depository bank was $356,690 and the bank balance was $195,849. Of the bank balance, $195,849 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 $992,704. An additional $745,328 was held in overnight repurchase agreements with a book value of $745,328. The overnight repurchase agreements were collateralized with U.S. agency securities held by a third-party institution in the System's name totaling $745,328.

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 approved the use of total plan leverage in fiscal year 2020. Leverage may be utilized (through futures, swaps, or other derivative instruments) to efficiently implement portfolio rebalancing and/or to apply modest leverage to total plan assets. The total direct leverage at the fund level shall not exceed 10% of the portfolio.

Based on the results of the 2020 asset allocation/liability study, the Board of Trustees amended the following long-term asset allocation targets: Public Risk Assets decreased 10% and Private Risk Assets increased 10%. Within Public Risk Assets, U.S. Equity decreased from 27% to 23%, Public Credit decreased from 7% to 0% and Non-U.S. Equity increased from 15% to 16%.

Within Private Risk Assets, Private Equity increased from 12% to 16%, Real Estate increased from 9% to 11% and Private Credit increased from 4% to 8%. Within Safe Assets, U.S. Treasuries increased from 16% to 20% while U.S. TIPS decreased from 4% to 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, 2021.

Investment Type	Long-term Target	Policy Ranges
Public Risk Asset Programs		
U.S. Public Equity	23.0%	15% - 45%
Public Credit	0.0%	0% - 15%
Hedged Assets	6.0%	0% - 25%
Non-U.S. Public Equity	16.0%	8% - 28%
Total Public Risk Assets	**45.0%**	**35% - 70%**
Safe Assets		
U.S. Treasuries	20.0%	0% - 40%
U.S. TIPS	0.0%	0% - 30%
Cash Equivalents	0.0%	0% - 10%
Total Safe Assets	**20.0%**	**10% - 40%**
Private Risk Asset Programs		
Private Equity	16.0%	4% - 22%
Private Real Estate	11.0%	4% - 15%
Private Credit	8.0%	0% - 12%
Total Private Risk Assets	**35.0%**	**10% - 45%**
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 classifications 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 6/30/2021	Fair Value Measurements Level 1	Level 2	Level 3
U.S. Treasuries and TIPS				
U.S. Treasuries	$ 9,129,708,134	$ -	$ 9,129,708,134	$ -
Total U.S. Treasuries and TIPS	9,129,708,134	-	9,129,708,134	-
U.S. public equities				
Equities	7,217,197,898	7,217,197,898	-	-
Total U.S. public equities	7,217,197,898	7,217,197,898	-	-
Non-U.S. public equities				
Equities	5,591,193,862	5,589,491,487	-	1,702,375
Corporate Bonds	541	-	541	-
Total Non-U.S. public equities	5,591,194,403	5,589,491,487	541	1,702,375
Short term investments				
Short term investment fund	2,895,782,968	-	2,895,782,968	-
Total Short term investments	2,895,782,968	-	2,895,782,968	-
Public debt				
Corporate Bonds	1,923,907,281	-	1,923,907,281	-
Bank Loans	255,244	-	255,244	-
U.S. Treasuries	137,470,424	-	137,470,424	-
Equities	11,917	-	-	11,917
Municipal Bonds	26,597,624	-	26,597,624	-
Total Public debt	2,088,242,490	-	2,088,230,573	11,917
Hedged assets				
U.S. Treasuries	42,566,336	-	42,566,336	-
Equities	247,417,716	247,417,716	-	-
Corporate Bonds	128,812,088	-	128,812,088	-
Mortgage Backed Securities	4,102,182	-	4,102,182	-
Agency Bonds	2,623,031	-	2,623,031	-
Total Hedged assets	425,521,353	247,417,716	178,103,637	-
Private equity				
Equities	10,232,209	10,232,209	-	-
Total Private equity	10,232,209	10,232,209	-	-
Total investments by fair value level	**$ 27,357,879,455**	**$ 13,064,339,310**	**$ 14,291,825,853**	**$ 1,714,292**
Total investments measured at the NAV ***(See detailed schedule on the following page)***	**29,448,858,889**			
Total Investments measured at fair value	**$ 56,806,738,344**			

Investment derivative instruments:	6/30/2021	Level 1	Level 2	Level 3
Equity total return swaps	$ 40,924,078	$ -	$ 40,924,078	$ -
Foreign currency forwards	(3,372,425)	-	(3,372,425)	-
Total investment derivative instruments	**$ 37,551,653**	**$ -**	**$ 37,551,653**	**$ -**

	6/30/2021	Level 1	Level 2	Level 3
Total invested securities lending collateral	**$ 241,248,374**	**$ 241,248,374**	**$ -**	**$ -**

Investments Measured at the NAV	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Public Equity Investments				
Passive U.S. Equity Funds	$ 4,557,219,182	$ -	Daily	1 day
Active U.S Equity Funds	552,412,500	-	Quarterly	45 days
Passive Non-U.S. Equity Fund	828,729,280	-	Daily	2 days
Active Non-U.S. Equity Funds	2,793,654,173	-	Monthly	15 - 30 days
Total Public Equity Investments	8,732,015,135	-		
Hedge Assets Investments				
Asset Allocation/Global Macro	573,191,604	-	Monthly	5 days
Distressed Debt/Credit	814,276,132	-	Quarterly, semi-annual	65 - 90 days
Diversified Beta	259,664,514	-	Quarterly	30 days
Equity Focused	1,690,509,892	-	Monthly, quarterly	5 - 60 days
Multi-Strategy	2,240,525,295	-	Monthly, quarterly	15 - 120 days
Total Hedge Investments	5,578,167,437	-		
Private Risk Investments				
Private Equity	9,214,345,008	4,387,914,200	Not eligible	N/A
Private Credit	1,443,417,131	1,303,738,575	Not eligible	N/A
Private Real Estate - closed end funds	1,352,875,099	1,553,361,637	Not eligible	N/A
Private Real Estate - open end funds	3,128,039,079	123,743,976	Quarterly	15 - 180 days
Total Private Risk Investments	15,138,676,317	7,368,758,388		
Total investments measured at the NAV	$ 29,448,858,889	$ 7,368,758,388		

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. equity funds, one active U.S. equity fund, three passive non-U.S. equity funds and four active non-U.S. equity funds. The passive equity funds provide for basic market exposure with daily liquidity. The active U.S. equity funds provide active industry specific strategies within U.S. markets while the active non-U.S. equity funds provide active investment strategies in the global 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 an investment in a fund 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 includes investments in three funds with a risk parity approach which focuses on the allocation of risk across the portfolio.

Equity Focused includes investments in eight funds with the strategy of taking long positions in attractive equity securities and potentially short positions in unattractive equity securities.

Multi-Strategy includes investments in seven 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, 2021, the money-weighted rate of return, net of all investment expenses and fees, was 28.4%. 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, 2021 net of all investment expenses and fees, was 28.5%.

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, 2021, 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, 2021	< 1 year to maturity	1 to 5 years to maturity	6 to 10 years to maturity	Over 10 years to maturity
U.S. Treasuries	$ 9,359,743,268	$ 575,042,141	$ 4,652,653,594	$ 1,938,160,676	$ 2,193,886,857
Agencies	2,623,031	-	-	-	2,623,031
Corporate bonds	2,057,075,932	61,422,472	1,073,349,484	685,505,875	236,798,101
Repurchase agreements	48,235,915	48,235,915	-	-	-
Certificates of deposit	135,014,084	135,014,084	-	-	-
Derivatives	(2,984,572)	(2,984,572)	-	-	-
Municipals	26,597,624	3,701,711	347,948	12,403,511	10,144,454
Bank deposits	1,558,949,268	1,558,949,268	-	-	-
Commingled Funds (see note)					
Blackrock Fed Fund	1,002,287	1,002,287	-	-	-
Bridgewater STIF II	12,622,065	12,622,065	-	-	-
Bridgewater US IL Bond Fund	4,608,155	-	-	4,608,155	-
Bridgewater International Bond Fund	5,596,227	-	-	-	5,596,227
JP Morgan US Govt Market Fund	1,336,833,700	1,336,833,700	-	-	-
State Street Inst. US Govt Fund	7,000,000	7,000,000	-	-	-
Currency	(3,974,156)	(3,974,156)	-	-	-
Total	$14,548,942,828	$ 3,732,864,915	$ 5,726,351,026	$ 2,640,678,217	$ 2,449,048,670
Percentage of Total Fixed Income	**100%**	**25%**	**39%**	**19%**	**17%**

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, 2021	< 1 year to maturity	1 to 5 years to maturity	6 to 10 years to maturity	Over 10 years to maturity
PSRS - Agencies	$ 11,265,801	$ -	$ 1,188,223	$ 2,228,924	$ 7,848,654
PEERS - Agencies	$ 1,738,032	$ -	$ -	$ -	$ 1,738,032

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 table includes collateral pledged for securities lending collateral. The Systems' debt investments by credit rating category as of June 30, 2021 are presented in the following table.

Security Type	Fair Value at June 30, 2021	%	FDIC Insured	AAA	AA	A	BBB	BB	B	CCC	Not Rated
U.S. Treasuries	$ 9,359,743,268	64%	$ -	$ 9,359,743,268	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Agencies	2,623,031	0%	-	2,623,031	-	-	-	-	-	-	-
Corporate bonds	2,057,075,932	14%	-	28,437,673	61,571,039	717,670,512	1,090,716,960	98,837,903	44,255,945	6,890,798	8,695,102
Repurchase agreements	48,235,915	1%	-	-	-	48,235,915	-	-	-	-	-
Certificates of deposit	135,014,084	1%	-	29,002,518	-	106,011,566	-	-	-	-	-
Derivatives	(2,984,572)	0%	-	-	-	-	-	-	-	-	(2,984,572)
Municipals	26,597,624	0%	-	16,105,222	347,948	10,144,454	-	-	-	-	-
Bank Deposits	1,558,949,268	11%	1,558,949,268	-	-	-	-	-	-	-	-
Commingled Funds (see note)											
Blackrock Fed Fund	1,002,287	0%	-	1,002,287	-	-	-	-	-	-	-
Bridgewater STIF II	12,622,065	0%	-	12,622,065	-	-	-	-	-	-	-
Bridgewater US IL Bond Fund	4,608,155	0%	-	-	4,608,155	-	-	-	-	-	-
Bridgewater International Bond Fund	5,596,227	0%	-	-	5,596,227	-	-	-	-	-	-
JP Morgan US Govt Market Fund	1,336,833,700	9%	-	1,336,833,700	-	-	-	-	-	-	-
State Street Inst. US Govt Fund	7,000,000	0%	-	7,000,000	-	-	-	-	-	-	-
Currency	(3,974,156)	0%	-	-	-	-	-	-	-	-	(3,974,156)
Total	$ 14,548,942,828	100%	$ 1,558,949,268	$10,793,369,764	$72,123,369	$ 882,062,447	$1,090,716,960	$ 98,837,903	$ 44,255,945	$ 6,890,798	$ 1,736,374
Percentage of Total Fixed Income	**100.00%**		**11%**	**74%**	**0%**	**6%**	**8%**	**1%**	**0%**	**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 AAA.

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, 2021 is presented in the following table.

Currency	Equity	Currency/Short Term	Total
Australian Dollar	$ 79,164,697	$ (1,022,835)	$ 78,141,862
Brazilian Real	34,907,374	2,029,169	36,936,543
Canadian Dollar	180,763,449	(2,062,083)	178,701,366
Chilean Peso	4,475,991	(169,208)	4,306,783
Colombian Peso	335,167	(25,225)	309,942
Czech Koruna	8,360,020	(129,261)	8,230,759
Danish Krone	123,827,722	612,548	124,440,270
Egyptian Pound	9,376,975	190,025	9,567,000
Euro Currency	1,769,197,032	22,804,639	1,792,001,671
Hong Kong Dollar	384,622,846	(843,754)	383,779,092
Hungarian Forint	8,450,715	328,538	8,779,253
Indian Rupee	176,884,822	48,157	176,932,979
Indonesian Rupiah	4,918,414	(63,858)	4,854,556
Israeli Shekel	5,947,083	(11,628)	5,935,455
Japanese Yen	651,252,408	2,121,627	653,374,035
Malaysian Ringgit	18,114,997	282,704	18,397,701
Mexican Peso	15,035,902	(259,125)	14,776,777
New Taiwan Dollar	182,898,411	632,057	183,530,468
New Turkish Lira	11,599,684	33,030	11,632,714
New Zealand Dollar	3,618,915	(170,891)	3,448,024
Norwegian Krone	17,733,515	368,094	18,101,609
Pakistan Rupee	3,152,970	1,647	3,154,617
Peruvian Nuevo Sol	306,891	(317,716)	(10,825)
Philippine Peso	10,540,417	(240,002)	10,300,415
Polish Zloty	8,002,642	164,501	8,167,143
Pound Sterling	396,384,174	507,219	396,891,393
Qatari Rial	14,367,694	9,279	14,376,973
Russian Ruble	45,575,897	3,659,747	49,235,644
Saudi Riyal	-	(312)	(312)
Singapore Dollar	50,809,445	667,908	51,477,353
South African Rand	55,957,416	396,187	56,353,603
South Korean Won	189,597,186	1,265,801	190,862,987
Swedish Krona	64,047,551	(294,557)	63,752,994
Swiss Franc	459,371,908	557,047	459,928,955
Thailand Baht	12,534,633	11,060	12,545,693
UAE Dirham	5,650,330	63,386	5,713,716
Yuan Renminbi	141,993,363	777,045	142,770,408
Total	**$ 5,149,778,656**	**$ 31,920,960**	**$ 5,181,699,616**

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, 2021, classified by type are as follows:

	Fair Value at June 30, 2021		
Investment Derivatives	**Classification**	**Amount**	**Notional**
Swaps			
Total return swaps - equity	Investments, at fair value	$ 40,924,078	$ 1,823,612,317
Total swaps		**40,924,078**	**1,823,612,317**
Futures			
Equity futures long	Investments, at fair value	-	502,980,993
Equity futures short	Investments, at fair value	-	113,671,973
Interest rate futures short	Investments, at fair value	-	80,561,250
Interest rate futures long	Investments, at fair value	-	208,661,891
Commodity futures long	Investments, at fair value	-	8,503,680
Total futures		**-**	**914,379,787**
Foreign currency forwards net receivable/payable	Investment Sales and Purchases	(3,372,425)	-
Total Investment Derivatives		**$ 37,551,653**	**$ 2,737,992,104**

Swaps - The Systems' investment managers may enter into various swaps including interest rate swaps, credit default swaps, currency 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 currency swap is a foreign exchange transaction that involves trading principal and interest in one currency for the same in another currency. 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 fair 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 $529.6 million were recognized for the fiscal year ended June 30, 2021.

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 gains on futures contracts of $120.2 million during the fiscal year ended June 30, 2021.

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 had no option activity during the fiscal year ended June 30, 2021.

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 losses on such contracts of $7.2 million during the fiscal year ended June 30, 2021.

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, 2021 the counterparties' credit ratings for currency forwards, options and swaps are subject to credit risk as shown below:

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 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 39.

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.

Derivative Counterparty Credit Ratings

Quality Rating	Swaps	Forwards	Total
AA	$ -	$ 1,439,363	$ 1,439,363
A	40,252,825	(4,811,460)	35,441,365
B	-	(328)	(328)
Total subject to credit risk	**$ 40,252,825**	**$ (3,372,425)**	**$ 36,880,400**

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 fair value of securities on loan as of June 30, 2021 was $232,942,206. On June 30, 2021 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, 2021, 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, 2021, the cost basis of the invested cash collateral totaled $241,229,413 and the estimated fair value totaled $241,248,374.

The Systems' recognized net depreciation of $23,668 for the year ended June 30, 2021 on the invested collateral account. Such is reported as net appreciation (depreciation) 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, 2021 was 29 days and an average final maturity of approximately 44 days. Because the loans were terminable at will, their duration did not match the duration of the investments made with cash collateral.

Note 5 – Net Pension Liability of Employers

The components of the net pension liability of the Systems' employers at June 30, 2021 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 Payroll (c)	Employers' NPL as a % of Covered Payroll ((a-b)/c)
PSRS	$ 52,834,296,831	$ 50,620,519,084	$ 2,213,777,747	95.8%	$ 5,039,838,429	43.9%
PEERS	$ 6,560,854,343	$ 6,453,161,951	$ 107,692,392	98.4%	$ 1,758,535,339	6.1%

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 during the current fiscal year. All economic and demographic assumptions were reviewed and updated, where appropriate, based on the results of the studies and are effective with the June 30, 2021 valuations. The next experience studies are scheduled to be completed prior to the June 30, 2026 valuations.

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, 2021. A summary of the significant actuarial assumptions as of June 30, 2021 are shown on the following page. The significant actuarial assumptions utilized in the previous year are also included to illustrate revisions from the prior year.

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 7.3% is presented as well as what the employers' net pension liability (asset) would be using a discount rate that is 1.0% lower (6.3%) or 1.0% higher (8.3%) than the current rate.

		1% Decrease (6.3%)	Current Rate (7.3%)	1% Increase (8.3%)
PSRS	Net Pension Liability (Asset)	$ 8,912,503,478	$ 2,213,777,747	$ (3,332,425,928)
PEERS	Net Pension Liability (Asset)	$ 911,938,897	$ 107,692,392	$ (563,469,120)

Measurement Date	**June 30, 2021**	**June 30, 2020**
Valuation Date	**June 30, 2021**	**June 30, 2020**
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Investment Rate of Return	7.30%	7.50%
Inflation	2.00%	2.25%
Total Payroll Growth		
PSRS	2.25% per annum, consisting of 2.00% inflation, 0.125% additional inflation due to the inclusion of health care costs in pension earnings, and 0.125% of real wage growth.	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.
PEERS	2.50% per annum, consisting of 2.00% inflation, 0.25% additional inflation due to the inclusion of health care costs in pension earnings, and 0.25% of real wage growth.	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.
Individual Salary Growth		
PSRS	2.625% - 8.875%, depending on service and including 2.00% inflation, 0.125% additional inflation due to the inclusion of health care costs in pension earnings, 0.125% of real wage growth for productivity, and real wage growth for merit.	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%.
PEERS	3.25% - 9.75%, depending on service and including 2.00% 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.	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%.
Cost-of-Living Increases		
PSRS	2.0% compounded annually for the next 3 years and then 1.35% for all years thereafter. The COLA is compounded annually, beginning on the second January after retirement and capped at an 80% lifetime increase.	1.65% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase. The assumption increases from 1.35% to 1.65% over six years.
PEERS	2.0% compounded annually for the next 3 years and then 1.35% for all years thereafter. The COLA is compounded annually, beginning on the fourth January after retirement and capped at an 80% lifetime increase.	1.65% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase. The assumption increases from 1.35% to 1.65% over six years.

Measurement Date	**June 30, 2021**	**June 30, 2020**
Valuation Date	**June 30, 2021**	**June 30, 2020**
Mortality Assumption		
Actives: PSRS	Experience-adjusted Pub-2010 Teachers Mortality Table for Employees projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	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.
PEERS	Experience- adjusted Pub-2010 General (Below-Median Income) Mortality Table for Employees projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020. improvement scale.	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.
Non-Disabled Retirees, Beneficiaries and Survivors:		
PSRS	Mortality rates for non-disabled retirees and beneficiaries are based on the Pub-2010 Teachers Mortality Table for Healthy Retirees and the Pub-2010 Teachers Mortality Table for Contingent Survivors, respectively. The tables are projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the experience-based adjustment factors shown in the tables below at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	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.

	Males	Females
Non-Disabled	1.10	1.04
Contingent Survivor	1.18	1.07

Age	Males	Females
<60	1.00	1.00
60-74	0.89	0.67
75-89	1.05	0.91
>=90	1.05	1.16

PEERS	Mortality rates for non-disabled retirees and beneficiaries are based on the Pub-2010 General (Below-Median Income) Mortality Table for Healthy Retirees and the Pub-2010 General (Below-Median Income) Mortality Table for Contingent Survivors, respectively. The tables are projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the experience-based adjustment factors shown in the tables below at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	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.

	Males	Females
Non-Disabled	1.13	0.94
Contingent Survivor	1.01	1.07

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

Disabled Retirees	PSRS: Experience-adjusted Pub-2010 Teacher Disability Mortality Table, projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale. PEERS: Experience-adjusted Pub-2010 General Disability Mortality Table projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	PSRS and PEERS: RP 2006 Disabled Retiree Mortality Table, with static projections using the 2014 SSA Improvement Scale to 2028.

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 and the assumed asset allocation for each major asset class as of June 30, 2021 are summarized below.

Asset Class	Target Asset Allocation	Long-Term Expected Real Return Arithmetic Basis
U.S. Public Equity	23.0 %	4.81 %
Public Credit	0.0 %	0.80 %
Hedged Assets	6.0 %	2.39 %
Non-U.S. Public Equity	16.0 %	6.88 %
U.S. Treasuries	20.0 %	-0.02 %
U.S. TIPS	0.0 %	0.29 %
Private Credit	8.0 %	5.61 %
Private Equity	16.0 %	10.90 %
Private Real Estate	11.0 %	7.47 %

The long-term expected rate of return used to measure the total pension liability was 7.3% as of June 30, 2021 and is consistent with the long-term expected geometric return on plan investments. The Board of Trustees adopted a new actuarial assumed rate of return of 7.3% effective with the June 30, 2021 valuations based on the actuarial experience studies conducted during the current fiscal 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 2021, 2020, and 2019. 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 $107,209 for the 2021 fiscal year, $94,103 for the 2020 fiscal year and $84,515 for the 2019 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 2021, 2020 and 2019. 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 $866,145 for the 2021 fiscal year, $829,231 for the 2020 fiscal year, and $794,871 for the 2019 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 - earnings on plan investments. 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%.

Section 457 Deferred Compensation Plans

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 equal to annual limitations established in IRC Section 457, 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 $127,544 and employer-paid contributions totaled $68,250 for the 2021 fiscal year. Employee contributions totaled $511,560 for the 2021 fiscal year. Employer-matching contributions totaled $122,064 and employer-paid contributions totaled $71,500 for the 2020 fiscal year. Employee contributions totaled $452,791 for the 2020 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 position are not reported in the Systems' financial statements.

The Systems established an unfunded Section 457(f) non-qualified deferred compensation plan for certain employees. The plan is subject to Internal Revenue Code section 457(f), and to the extent applicable, Internal Revenue Code section 409A. Employees approved for participation in the plan by the Systems' Board of Trustees may acquire a vested interest in a deferred compensation award which is credited to the account of the member under terms approved by the Board of Trustees. The value of the member's account shall be subject to a risk of forfeiture based on the applicable vesting schedule determined for the member. As of June 30, 2021, employees had a vested interest under the plan of $248,071 and disbursements of $64,971 were made from the plan for the year then ended.

Section 401(a) Defined Contribution Plan

The Systems established a 401(a) defined contribution plan for certain employees. The employees are approved for participation in the plan by the Systems' Board of Trustees. The plan is a tax qualified plan under Section 401(a) of the Internal Revenue Code and all contributions by or on behalf of employees are tax deferred until time of withdrawal. All employees immediately vest in employer-paid contributions. Employer-paid contributions totaled $171,000 for the 2021 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 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 position are not reported in the Systems' financial statements.

Note 7 – Other Post-Employment Benefit Plans

Post-Employment Staff Retiree Healthcare Plan

Plan Description, Funding Policy and Benefits Provided – 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 is administered as required by RSMo 169.590. 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. Therefore, no formal trust has been established for the SRHP. 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.

Employees covered by benefit terms:

Retirees and spouses of retirees receiving benefits	14
Active employees	134
Total	148

OPEB Liability – The components of the net OPEB Liability of the SRHP as of June 30, 2021 are as follows:

Total OPEB Liability - Beginning of the year	$ 4,129,741
Service Costs	185,640
Interest Costs	77,125
Experiences (gains) losses	45,526
Assumption changes	65,334
Plan amendments	-
Benefit payments	(109,138)
Total OPEB Liability - End of year	$ 4,394,228
OPEB Plan Fiduciary Net Position	$ -
Net OPEB Liability	$ 4,394,228

OPEB Expense – The components of the OPEB expense for the year ended June 30, 2021 are as follows:

Service Costs	$ 185,640
Plan Amendments	-
Interest Costs	77,125
Recognition of deferred (inflows) outflows of resources related to:	
Liability experiences (gains) losses	27,328
Assumption changes (gains) losses	(26,913)
Total Recognition of deferred (inflows) outflows of resources	415
Total collective OPEB expense recognized	$ 263,180

Actuarial Method and Assumptions - The total OPEB liability was determined by an actuarial valuation as of June 30, 2021. 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 assumptions and methods used in the valuation are based on prior plan experience and industry trends. The nature of the plan design and overall plan size does not allow for full scale periodic experience studies; therefore, such a study has not been conducted. 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 total OPEB liability and expense are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Actuarial assumptions were revised during fiscal year 2021 and are detailed on the following page.

In the June 30, 2021 actuarial valuation, the following actuarial assumptions and methods were used:

Post-Employment Health Plan

Measurement date	June 30, 2021
Valuation date	June 30, 2021
Actuarial cost method	Entry Age Normal
Actuarial value of assets	No Assets (pay-as-you-go)
Amortization method	Level Percent Open
Discount rate	1.81% per year effective June 30, 2020 1.56% per year effective June 30, 2021
Wage inflation	3.25% per year effective June 30, 2016 2.50% per year effective June 30, 2021
Healthcare trend rate	6.00% in fiscal year 2022 and 2023, decreasing by one-quarter percentage point per year down to 4.75% in 2028, decreasing to 4.60% in 2029, and decreasing to an ultimate rate of 4.50% in 2030 and thereafter.
Mortality	
Active members	Based on Experience-adjusted PUB-2010 Mortality Tables with generational projections using the MP-2020 Improvement Scale. Effective June 30, 2021
	Based on 75% of the RP-2006 Mortality Tables with static projection to 2028 using the 2014 Improvement Scale. Effective June 30, 2016
Non-disabled retirees and beneficiaries	Based on Experience-adjusted PUB-2010 Mortality Tables with generational projections using the MP-2020 Improvement Scale. Effective June 30, 2021
	Based on the RP-2006 Mortality Tables with plan-specific experience adjustments and static projection to 2028 using the 2014 SSA Improvement Scale. Effective June 30, 2016
	Based on Experience-adjusted PUB-2010 Mortality Tables with generational projections using the MP-2020 Improvement Scale. Effective June 30, 2021
	Based on the RP-2014 Disabled Retiree Mortality Table, adjusted to 2006, with static projection to 2028 using the 2014 SSA Improvement Scale. Effective June 30, 2016

Discount Rate - GASB Statement No. 75 requires plans not administered through a trust to utilize the yield or index rate for 20-year, tax-exempt general obligation municipal bonds with and average rating of AA/Aa or higher. The Systems utilized the US. General Obligation AA Municipal Bond Yield Curve for 20 years for the June 30, 2021 and 2020 valuations. The June 30, 2021 rate was 1.56% and the June 30, 2020 rate utilized was 1.81%. The movement in the yield on the 20 Year US. General Obligation AA Municipal Bond is considered an assumption change for reporting purposes.

Deferred Inflows and Outflows of Resources - As of June 30, 2021, the Systems reported deferred outflows of resources and deferred inflows of resources from the following sources related to the SRHP:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Balance of Deferred Outflows and Inflows Due to:		
Differences between expected and actual experience	$ 265,067	$ -
Changes of assumptions	-	227,671
Total	$ 265,067	$ 227,671

Amounts reported as collective deferred (inflows) /outflows of resources are to be recognized in pension expense as follows:

Year Ending June 30:	
2022	$ 415
2023	415
2024	415
2025	415
2026	415
Thereafter	35,321
	$ 37,396

Sensitivity of the net OPEB liability to changes in the discount rate and health care cost trend rate – The following table presents the sensitivity of the net OPEB liability to changes in the discount rate. The net OPEB liability calculated using the discount rate of 1.56% is presented as well as what the net OPEB liability would be using a discount rate that is 1.0% lower (0.56%) or 1.0% higher (2.56%) than the current rate.

Discount Rate Sensitivity			
	1% Decrease (0.56%)	Current Rate (1.56%)	1% Increase (2.56%)
Net OPEB Liability	$ 4,902,229	$ 4,394,228	$ 3,934,007

The following table presents the sensitivity of the net OPEB liability to changes in the healthcare trend rate. The net OPEB liability calculated using the healthcare trend rate between 6.0% is presented as well as what the net OPEB liability would be using a healthcare trend rate that is 1.0% lower (5.0%) or 1.0% higher (7.0%) than the current rate.

Trend Rate Sensitivity			
	1% Decrease (5.0%)	Current Rate (6.0%)	1% Increase (7.0%)
Net OPEB Liability	$ 3,805,238	$ 4,394,228	$ 5,096,469

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 $162,053 for eight employees during 2021.

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, 2021 totaled $7,105,250,509.

Total unfunded capital commitments to private real estate, private equity and other alternative investments totaled approximately $7.4 billion as of June 30, 2021. The unfunded commitments are not recorded in the Statements of Fiduciary Net Position.

Certain 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.

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

Required Supplementary Information

Schedules of Changes in the Employers' Net Pension Liability

Public School Retirement System of Missouri

Year Ended:	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
Total pension liability				
Service cost	$ 859,537,572	$ 845,283,640	$ 830,084,321	$ 792,276,388
Interest cost	3,682,226,376	3,559,151,521	3,466,455,926	3,346,220,624
Difference between actual and expected experience	957,100,081	75,988,120	(314,439,382)	137,516,335
Assumption changes	590,572,160	-	-	531,202,248
Plan amendments	-	-	-	-
Benefit payments	(2,896,159,765)	(2,813,232,110)	(2,710,273,502)	(2,606,985,013)
Net change in total pension liability	3,193,276,424	1,667,191,171	1,271,827,363	2,200,230,582
Total pension liability - beginning of year	$ 49,641,020,407	$ 47,973,829,236	$ 46,702,001,873	$ 44,501,771,291
Total pension liability - end of year (a)	$ 52,834,296,831	$ 49,641,020,407	$ 47,973,829,236	$ 46,702,001,873
Plan Fiduciary Net Position				
Employer contributions	$ 745,638,245	$ 724,995,473	$ 712,545,096	$ 696,970,398
Member contributions	779,834,058	757,916,937	747,402,726	726,996,161
Net investment return	11,291,720,999	1,457,518,290	2,595,865,535	3,173,735,918
Benefit payments, including refunds of member contributions	(2,896,159,765)	(2,813,232,110)	(2,710,273,502)	(2,606,985,013)
Administrative and other expenses	(10,818,620)	(10,653,288)	(11,326,398)	(11,418,119)
Net change in plan fiduciary net position	9,910,214,917	116,545,302	1,334,213,457	1,979,299,345
Plan fiduciary net position - beginning of year	$ 40,710,304,167	$ 40,593,758,865	$ 39,259,545,408	$ 37,280,246,063
Plan fiduciary net position - end of year (b)	$ 50,620,519,084	$ 40,710,304,167	$ 40,593,758,865	$ 39,259,545,408
Net pension liability - end of year (a-b)	$ 2,213,777,747	$ 8,930,716,240	$ 7,380,070,371	$ 7,442,456,465

Public Education Employee Retirement System of Missouri

Year Ended:	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
Total pension liability				
Service cost	$ 181,297,752	$ 173,676,697	$ 170,543,513	$ 161,028,014
Interest cost	457,694,318	436,863,559	417,341,777	397,675,858
Difference between actual and expected experience	98,736,815	(286,057)	(10,635,802)	117,686
Assumption changes	84,245,144	-	-	61,921,295
Plan amendments	-	-	-	-
Benefit payments	(350,520,890)	(330,337,694)	(310,242,399)	(287,634,108)
Net change in total pension liability	471,453,139	279,916,505	267,007,089	333,108,745
Total pension liability - beginning of year	$ 6,089,401,204	$ 5,809,484,699	$ 5,542,477,610	$ 5,209,368,865
Total pension liability - end of year (a)	$ 6,560,854,343	$ 6,089,401,204	$ 5,809,484,699	$ 5,542,477,610
Plan Fiduciary Net Position				
Employer contributions	$ 126,877,255	$ 124,544,728	$ 120,042,046	$ 115,103,143
Member contributions	134,324,324	131,335,977	126,609,105	121,467,850
Net investment return	1,431,016,967	181,855,037	319,773,260	381,523,965
Benefit payments, including refunds of member contributions	(350,520,890)	(330,337,694)	(310,242,399)	(287,634,108)
Administrative and other expenses	(7,379,579)	(7,077,789)	(7,423,689)	(7,113,566)
Net change in plan fiduciary net position	1,334,318,077	100,320,259	248,758,323	323,347,284
Plan fiduciary net position - beginning of year	$ 5,118,843,874	$ 5,018,523,615	$ 4,769,765,292	$ 4,446,418,008
Plan fiduciary net position - end of year (b)	$ 6,453,161,951	$ 5,118,843,874	$ 5,018,523,615	$ 4,769,765,292
Net pension liability - end of year (a-b)	$ 107,692,392	$ 970,557,330	$ 790,961,084	$ 772,712,318

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

June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
$ 740,176,751	$ 842,548,463	$ 836,085,151	$ 849,712,130
3,198,060,384	3,263,288,365	3,019,050,250	2,885,182,982
60,942,067	(641,098,601)	598,417,056	226,591,816
1,279,805,826	100,247,551	-	-
-	-	-	-
(2,521,832,399)	(2,430,906,732)	(2,326,196,773)	(2,236,468,407)
2,757,152,629	1,134,079,046	2,127,355,684	1,725,018,521
$ 41,744,618,662	$ 40,610,539,616	$ 38,483,183,932	$ 36,758,165,411
$ 44,501,771,291	$ 41,744,618,662	$ 40,610,539,616	$ 38,483,183,932

$ 684,857,718	$ 670,794,045	$ 656,924,899	$ 643,989,869
719,625,373	704,785,734	689,187,215	679,390,918
4,104,123,251	533,180,245	1,447,169,205	4,927,198,588
(2,521,832,399)	(2,430,906,732)	(2,326,196,773)	(2,236,468,407)
(10,497,712)	(11,562,965)	(10,013,601)	(8,919,201)
2,976,276,231	(533,709,673)	457,070,945	4,005,191,767
$ 34,303,969,832	$ 34,837,679,505	$ 34,380,608,560	$ 30,375,416,793
$ 37,280,246,063	$ 34,303,969,832	$ 34,837,679,505	$ 34,380,608,560
$ 7,221,525,228	$ 7,440,648,830	$ 5,772,860,111	$ 4,102,575,372

June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
$ 150,975,958	$ 161,391,660	$ 156,599,641	$ 159,672,364
374,497,203	372,184,628	333,780,285	315,131,402
3,076,923	(51,257,557)	45,518,402	(14,308,876)
140,420,925	65,420,724	-	-
-	-	-	-
(269,268,101)	(250,390,477)	(235,070,181)	(216,624,810)
399,702,908	297,348,978	300,828,147	243,870,080
$ 4,809,665,957	$ 4,512,316,979	$ 4,211,488,832	$ 3,967,618,752
$ 5,209,368,865	$ 4,809,665,957	$ 4,512,316,979	$ 4,211,488,832

$ 111,239,585	$ 106,717,021	$ 103,624,310	$ 100,699,735
118,446,790	114,257,497	110,443,660	106,420,656
485,046,867	60,317,387	163,719,526	544,154,941
(269,268,101)	(250,390,478)	(235,070,010)	(216,624,810)
(6,377,808)	(6,981,573)	(5,629,551)	(4,840,432)
439,087,333	23,919,854	137,087,935	529,810,090
$ 4,007,330,675	$ 3,983,410,821	$ 3,846,322,886	$ 3,316,512,796
$ 4,446,418,008	$ 4,007,330,675	$ 3,983,410,821	$ 3,846,322,886
$ 762,950,857	$ 802,335,282	$ 528,906,158	$ 365,165,946

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 Payroll (c)	Employers' NPL as a % of Covered Payroll ((a-b)/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%
6/30/17	44,501,771,291	37,280,246,063	7,221,525,228	83.8%	4,655,169,121	155.1%
6/30/18	46,702,001,873	39,259,545,408	7,442,456,465	84.1%	4,759,665,456	156.4%
6/30/19	47,973,829,236	40,593,758,865	7,380,070,371	84.6%	4,844,248,703	152.3%
6/30/20	49,641,020,407	40,710,304,167	8,930,716,240	82.0%	4,919,286,103	181.5%
6/30/21	52,834,296,831	50,620,519,084	2,213,777,747	95.8%	5,039,838,429	43.9%

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 Payroll (c)	Employers' NPL as a % of Covered Payroll ((a-b)/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%
6/30/17	5,209,368,865	4,446,418,008	762,950,857	85.4%	1,558,183,433	49.0%
6/30/18	5,542,477,610	4,769,765,292	772,712,318	86.1%	1,636,007,948	47.2%
6/30/19	5,809,484,699	5,018,523,615	790,961,084	86.4%	1,665,654,047	47.5%
6/30/20	6,089,401,204	5,118,843,874	970,557,330	84.1%	1,732,243,294	56.0%
6/30/21	6,560,854,343	6,453,161,951	107,692,392	98.4%	1,758,535,339	6.1%

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]	Covered Payroll	Contributions as a Percentage of Covered Payroll
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%
2017	642,821,624	684,857,718	42,036,094	4,723,156,676	14.50%
2018	533,062,186	696,970,397	163,908,211	4,806,692,393	14.50%
2019	628,513,916	712,545,096	84,031,180	4,914,104,110	14.50%
2020	679,495,757	724,995,473	45,499,716	4,999,968,779	14.50%
2021	702,442,650	745,638,245	43,195,595	5,142,332,724	14.50%

Public Education Employee Retirement System of Missouri

Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Excess/ (Deficiency) [1]	Covered Payroll	Contributions as a Percentage of Covered Payroll
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%
2017	108,807,233	111,239,585	2,432,352	1,621,568,294	6.86%
2018	97,653,104	115,103,143	17,450,039	1,677,888,382	6.86%
2019	113,567,475	120,042,046	6,474,571	1,749,884,052	6.86%
2020	119,461,270	124,544,728	5,083,458	1,815,520,816	6.86%
2021	123,733,066	126,877,255	3,144,189	1,849,522,668	6.86%

[1]The 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:	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of all investment fees and expenses	28.4%	3.7%	6.9%	8.7%	12.3%	1.6%	4.3%	16.7%
Time-weighted rate of return, net of all investment fees and expenses	28.5%	3.7%	6.9%	8.7%	12.3%	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.

Changes of assumptions

In 2011, 2016 and 2021 payroll growth, salary increases, assumed life expectancies and mortality were adjusted to more closely reflect actual experience. 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-loving adjustments were calculated in accordance with the funding policy as amended in June 2016. During 2016 and 2021, minor revisions were made to other actuarial assumptions including but not limited to, retirement rates, withdraw rates, etc. The assumption changes were a result of actuarial experience studies conducted during 2011, 2016 and 2021. For fiscal year 2017, the investment rate of return was further reduced from 7.75% to 7.6% and the assumption for annual cost-of-living adjustments changed. For fiscal year 2018, the investment rate of return was further reduced to 7.5%. In 2021, the inflation rate was adjusted to 2.0% from 2.25%, and the investment rate of return from 7.5% to 7.3%.

Actuarial 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	20.6 years	
PEERS	20.8 years	
Asset valuation method	5-year smoothing of actual returns above or below expected returns	
Measurement Date	**June 30, 2021**	**June 30, 2020**
Valuation Date	**June 30, 2021**	**June 30, 2020**
Investment Rate of Return	7.30%	7.50%
Inflation	2.00%	2.25%
Total Payroll Growth		
PSRS	2.25% per annum, consisting of 2.00% inflation, 0.125% additional inflation due to the inclusion of health care costs in pension earnings, and 0.125% of real wage growth.	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.
PEERS	2.50% per annum, consisting of 2.00% inflation, 0.25% additional inflation due to the inclusion of health care costs in pension earnings, and 0.25% of real wage growth.	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.
Individual Salary Growth		
PSRS	2.625% - 8.875%, depending on service and including 2.00% inflation, 0.125% additional inflation due to the inclusion of health care costs in pension earnings, 0.125% of real wage growth for productivity, and real wage growth for merit.	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%.
PEERS	3.25% - 9.75%, depending on service and including 2.00% 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.	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%.
Cost-of-Living Increases		
PSRS	2.0% compounded annually for the next 3 years and then 1.35% for all years thereafter. The COLA is compounded annually, beginning on the second January after retirement and capped at an 80% lifetime increase.	1.65% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase. The assumption increases from 1.35% to 1.65% over six years.
PEERS	2.0% compounded annually for the next 3 years and then 1.35% for all years thereafter. The COLA is compounded annually, beginning on the fourth January after retirement and capped at an 80% lifetime increase.	1.65% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase. The assumption increases from 1.35% to 1.65% over six years.

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, 2021**	**June 30, 2020**
Valuation Date	**June 30, 2021**	**June 30, 2020**
Mortality Assumption		
Actives:		
PSRS	Experience-adjusted Pub-2010 Teachers Mortality Table for Employees projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	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.
PEERS	Experience- adjusted Pub-2010 General (Below-Median Income) Mortality Table for Employees projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	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.
Non-Disabled Retirees, Beneficiaries and Survivors:		
PSRS	Mortality rates for non-disabled retirees and beneficiaries are based on the Pub-2010 Teachers Mortality Table for Healthy Retirees and the Pub-2010 Teachers Mortality Table for Contingent Survivors, respectively. The tables are projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the experience-based adjustment factors shown in the tables below at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	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.

	Males	Females
Non-Disabled	1.10	1.04
Contingent Survivor	1.18	1.07

Age	Males	Females
<60	1.00	1.00
60-74	0.89	0.67
75-89	1.05	0.91
>=90	1.05	1.16

PEERS	Mortality rates for non-disabled retirees and beneficiaries are based on the Pub-2010 General (Below-Median Income) Mortality Table for Healthy Retirees and the Pub-2010 General (Below-Median Income) Mortality Table for Contingent Survivors, respectively. The tables are projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the experience-based adjustment factors shown in the tables below at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale	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.

	Males	Females
Non-Disabled	1.13	0.94
Contingent Survivor	1.01	1.07

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

Disabled Retirees:	PSRS: Experience-adjusted Pub-2010 Teacher Disability Mortality Table, projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale PEERS: Experience-adjusted Pub-2010 General Disability Mortality Table projected from 2010 to 2018 using the MP-2020 improvement scale and multiplied by the healthy retiree experience-based adjustment factors at all ages for both males and females, with generational improvement after 2018 using the MP-2020 improvement scale.	PSRS and PEERS: RP 2006 Disabled Retiree Mortality Table, with static projections using the 2014 SSA Improvement Scale to 2028.

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 Changes in the Net OPEB Liability and Related Ratios

Year ended:	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
Total OPEB Liability - beginning of the year	$ 4,129,740	$ 3,885,983	$ 3,788,863	$ 2,050,100
Remeasurement of June 30, 2017 OPEB liability	-	-	-	1,479,740
Service cost	185,640	163,813	151,794	152,625
Interest cost	77,125	98,507	132,375	116,484
Experience (gains) losses	45,526	12,551	74,147	110,476
Assumption changes	65,334	60,354	(259,345)	(104,653)
Plan amendments	-	-	-	-
Benefit payments	(109,137)	(91,468)	(1,850)	(15,909)
Net change in total OPEB liability	$ 4,394,228	$ 4,129,740	$ 3,885,984	$ 3,788,863
OPEB Plan Fiduciary Net Position	$ -	$ -	$ -	$ -
Net OPEB Liability - end of the year	$ 4,394,228	$ 4,129,740	$ 3,885,984	$ 3,788,863
Covered Payroll	$ 12,938,669	$ 12,645,475	$ 12,025,626	$ 10,742,062
Employer's Net OPEB Liability as a Percentage of Covered Payroll	34.0%	32.7%	32.3%	35.3%

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

Schedules of Administrative Expenses

for the year ended June 30, 2021

	PSRS	PEERS	Combined Totals
Personnel services	$ 6,934,427	$ 4,946,543	$ 11,880,970
Professional services			
Actuarial services	377,887	224,780	602,667
Legal services	191,606	32,806	224,412
Financial audit services	59,040	39,360	98,400
Other consultants	63,507	42,338	105,845
Technology consulting	255,340	170,625	425,965
Legislative consulting	29,250	19,500	48,750
Insurance consulting	6,600	4,400	11,000
Total professional services	983,230	533,809	1,517,039
Communications			
Information and publicity	225,634	179,544	405,178
Postage	212,347	154,474	366,821
Member education	1,424	959	2,383
Telephone	41,055	27,374	68,429
Total communications	480,460	362,351	842,811
Miscellaneous			
Building and utilities	83,946	55,969	139,915
Insurance	93,266	62,177	155,443
Office	1,000,147	665,160	1,665,307
Staff development	77,185	51,491	128,676
Miscellaneous	274,288	148,638	422,926
Total miscellaneous	1,528,832	983,435	2,512,267
Depreciation expense	836,122	553,078	1,389,200
Total administrative expenses	$ 10,763,071	$ 7,379,216	$ 18,142,287

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

Schedules of Professional Services

for the year ended June 30, 2021

	PSRS	PEERS	Combined Totals
Actuarial services	$ 377,887	$ 224,780	$ 602,667
Legal expenses	191,606	32,806	224,412
Financial audit services	59,040	39,360	98,400
Other consulting	63,507	42,338	105,845
Technology consulting	255,340	170,625	425,965
Legislative consulting	29,250	19,500	48,750
Insurance consulting	6,600	4,400	11,000
Total professional services	$ 983,230	$ 533,809	$ 1,517,039

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

Schedules of Investment Expenses

for the year ended June 30, 2021

	PSRS	PEERS	Combined Totals
Investment management expenses			
U.S. Treasuries and TIPS	$ 4,554,664	$ 562,936	$ 5,117,600
U.S. public equities	94,687,180	11,702,909	106,390,089
Non-U.S. public equities	37,901,755	4,684,486	42,586,241
Public debt	1,581,695	195,491	1,777,186
Private equity	784,408,036	96,949,308	881,357,344
Private credit	35,444,122	4,380,734	39,824,856
Private real estate	102,803,863	12,706,095	115,509,958
Hedged assets	130,548,562	16,135,216	146,683,778
Total investment management expenses	1,191,929,877	147,317,175	1,339,247,052
Investment consultant fees	4,816,876	595,344	5,412,220
Custodial bank fees	1,801,876	222,704	2,024,580
Investment staff expenses	6,058,310	760,640	6,818,950
Commission recapture income	(37,942)	(4,804)	(42,746)
Total investment expenses	$1,204,568,997	$ 148,891,059	$1,353,460,056
Security lending expenses			
Agent fees	$ 570,385	$ 72,729	$ 643,114
Broker rebates	(1,874,925)	(239,070)	(2,113,995)
Total security lending expenses	$ (1,304,540)	$ (166,341)	$ (1,470,881)