Oklahoma Public Employees Retirement Plan

Administered by the Oklahoma Public Employees Retirement System

Financial Statements
(With Independent Auditors' Report Thereon)
June 30, 2019 and 2018

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CPAs & BUSINESS ADVISORS

Independent Auditor's Report

To the Board of Trustees
Oklahoma Public Employees Retirement System
Oklahoma City, Oklahoma

Report on the Financial Statements
We have audited the accompanying financial statements of the Oklahoma Public Employees Retirement System (the System), a component unit of the State of Oklahoma, which comprise the statements of fiduciary net position as of June 30, 2019 and 2018, and the related statements of changes in fiduciary net position, for the years 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 accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the 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.

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Oklahoma Public Employees Retirement System, as of June 30, 2019 and 2018, and the respective statements of changes in fiduciary net position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As described in Note 9, subsequent to the issuance of the opinion dated October 11, 2019, management discovered that the certain investment expenses had not been accrued as of June 30, 2019. As such, investment expenses and related accrued expenses in the amount of $5,052,337 have been recorded in the revised financial statements. In our original report, we expressed an unmodified opinion on the financial statements and our opinion on the financial statements remains unmodified.

As discussed in Note 1, the financial statements of the Oklahoma Public Employees Retirement System, are intended to present the fiduciary net position, and the changes in fiduciary net position of only that portion of the System. They do not purport to, and do not, present fairly the fiduciary net position of other Plans governed by the Oklahoma Public Employee Retirement System Board of Trustees, as of June 30, 2019 and 2018, and the changes in its fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information on pages 4 to 11 and 37 to 42 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 auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information
Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The other supplementary information is presented for purposes of additional analysis and is not a required part of the financial statements.

The other supplementary information accompanying financial information listed as other supplementary information on pages 43 to 45 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the accompanying financial information listed as supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 19, 2019, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Eide Bailly LLP

Oklahoma City, Oklahoma
November 19, 2019

Management's Discussion and Analysis
(Unaudited)

As management of the Oklahoma Public Employees Retirement System (the System), we offer readers of the System's financial statements this narrative overview and analysis of the financial activities of the System for the fiscal years ended June 30, 2019, 2018 and 2017.

Financial Highlights

- The net position restricted for pension and health insurance subsidy plan (HISP) totaled approximately $10 billion at June 30, 2019, compared to $9.7 billion at June 30, 2018, improving by approximately $0.3 billion due to investment income and flows of funds, and $9.2 billion at June 30, 2017. The net position is available for payment of monthly retirement benefits and other qualified distributions to the System's participants. Equity markets performed well during fiscal year 2019, resulting in an increase in net investment income which lead to an increase in net position restricted for pension/HISP benefits from June 30, 2017 to June 30, 2018 and from June 30, 2018 to June 30, 2019.
- At June 30, 2019, 2018, and 2017, the total number of members participating in the System decreased 1.4%, decreased 2.3% and decreased 2.6%, respectively. Membership was 76,511 at June 30, 2019, 77,613 at June 30, 2018, and 79,403 at June 30, 2017. The number of retirees increased by 1.7% as of June 30, 2019, 2.0% as of June 30, 2018, and increased by 2.5% as of June 30, 2017. The total number of retirees was 35,869 at June 30, 2019, 35,260 at June 30, 2018, and 34,579 at June 30, 2017.

Overview of the Financial Statements

The System is a multiple-employer, cost-sharing public employee retirement plan, which is a defined benefit pension plan. The System covers substantially all employees of the state of Oklahoma (the State) except those covered by seven other plans sponsored by the State. The System also covers employees of participating counties and local agencies.

Nearly all new state employees first employed by a System participating employer on or after November 1, 2015 are participating in the State's new defined contribution plan. Therefore, the System is closed to nearly all new State employees but remains open to new employees of participating counties and local agencies.

For most of the System's members, benefits are determined at 2% of the average highest thirty-six months' annual covered compensation multiplied by the number of years of credited service. Members qualify for full retirement benefits at their specified normal retirement age or as adjusted by the provisions of the Oklahoma Statutes as further explained in the notes to the basic financial statements (refer to the note 3(b)).

The System also includes a multiple-employer, cost-sharing public employee other post-employment benefit plan, which is a defined benefit plan. This plan is called the Health Insurance Subsidy Plan (HISP), and it provides a health insurance premium subsidy for retirees of the System who elect to maintain health insurance with the Oklahoma Employees Group Insurance Division (EGID) or other qualified insurance plan provided by the employer. This subsidy continues until the retiree terminates health insurance coverage with EGID or other qualified plan, or until death. The subsidy is only for the retiree, not joint annuitants or beneficiaries.

The System's financial statements are comprised of Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position for both pensions and HISP, and Notes to Financial Statements. Also included are certain required supplementary information and supplementary information for both pensions and HISP.

The System is administered by the Oklahoma Public Employees Retirement System, a component unit of the State, which together with other similar funds comprise the fiduciary-pension and HISP trust funds of the State.

The *Statements of Fiduciary Net Position* present information on the System's assets, liabilities and the resulting *net position restricted for pensions and net position restricted for HISP.* These statements reflect the System's investments, at fair value, along with cash and cash equivalents, receivables, and other assets and liabilities.

The *statements of changes in fiduciary net position* presents information showing how the System's net position restricted for pensions and HISP changed during the years ended June 30, 2019 and 2018. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds and withdrawals, and administrative expenses. Investment income during the period is also presented showing income from investing and securities lending activities.

The *notes to financial statements* provide additional information that is essential to a full understanding of the data provided in the financial statements.

The *required supplementary information* presents a schedule of changes in the net pension liability, schedule of pension employer contributions, schedules of money-weighted rate of return on pension plan investments, schedule of changes in the net HISP asset, schedule of HISP employer contributions, and schedules of money-weighted rate of return on HISP investments. Schedules of certain expenses and fees paid are presented as *supplementary information.*

Financial Analysis

The following are the condensed Schedules of Fiduciary Net Position and Changes in Fiduciary Net Position for the Oklahoma Public Employees Retirement System for the fiscal years ended June 30, 2019, 2018 and 2017.

Condensed Schedules of Fiduciary Net Position

($ millions)	2019			2018			2017		
	Pension	HISP	Combined	Pension	HISP	Combined	Pension	HISP	Combined
Assets:									
Cash and cash equivalents	$ 127.3	$ 6.9	$ 134.2	$ 216.4	$ 6.6	$ 223.0	$ 113.3	$ 5.9	$ 119.2
Receivables	322.1	11.9	334.0	223.6	8.1	231.7	340.9	11.8	352.7
Investments	9,489.1	354.0	9,843.1	9,403.9	344.1	9,748.0	9,042.9	318.3	9,361.2
Securities lending collateral	462.9	17.3	480.2	459.7	16.8	476.5	618.2	21.8	640.0
Other assets	1.0	-	1.0	0.8	-	0.8	0.7	-	0.7
Total assets	10,402.4	390.1	10,792.5	10,304.4	375.6	10,680.0	10,116.0	357.8	10,473.8
Liabilities:									
Other liabilities	346.4	12.9	359.3	483.7	17.7	501.4	583.8	20.5	604.3
Securities lending collateral	462.9	17.3	480.2	459.7	16.8	476.5	618.2	21.8	640.0
Total liabilities	809.3	30.2	839.5	943.4	34.5	977.9	1,202.0	42.3	1,244.3
Ending fiduciary net position	$ 9,593.1	$ 359.9	$ 9,953.0	$ 9,361.0	$ 341.1	$ 9,702.1	$ 8,914.0	$ 315.5	$ 9,229.5

Condensed Schedules of Changes in Fiduciary Net Position

($ millions)	2019			2018			2017		
	Pension	HISP	Combined	Pension	HISP	Combined	Pension	HISP	Combined
Member contributions	$ 66.6	$ -	$ 66.6	$ 66.9	$ -	$ 66.9	$ 70.3	$ -	$ 70.3
State and local agency contributions	263.7	18.8	282.5	258.9	19.1	278.0	269.5	18.9	288.4
Net investment income	544.2	18.9	563.1	735.0	25.5	760.5	1,013.9	35.7	1,049.6
Total additions	874.5	37.7	912.2	1,060.8	44.6	1,105.4	1,353.7	54.6	1,408.3
Retirement, death and survivor benefits	621.4	18.6	640.0	592.7	18.8	611.5	573.9	19.0	592.9
Refunds and withdrawals	15.4	-	15.4	16.0	-	16.0	16.0	-	16.0
Administrative expenses	5.6	0.2	5.8	5.1	0.2	5.3	5.2	0.2	5.4
Total deductions	642.4	18.8	661.2	613.8	19.0	632.8	595.1	19.2	614.3
Net increase in fiduciary net position	232.1	18.9	251.0	447.0	25.6	472.6	758.6	35.4	794.0
Beginning of year	9,361.0	341.1	9,702.1	8,914.0	315.5	9,229.5	8,155.4	280.1	8,435.5
End of year	$ 9,593.1	$ 360.0	$ 9,953.1	$ 9,361.0	$ 341.1	$ 9,702.1	$ 8,914.0	$ 315.5	$ 9,229.5

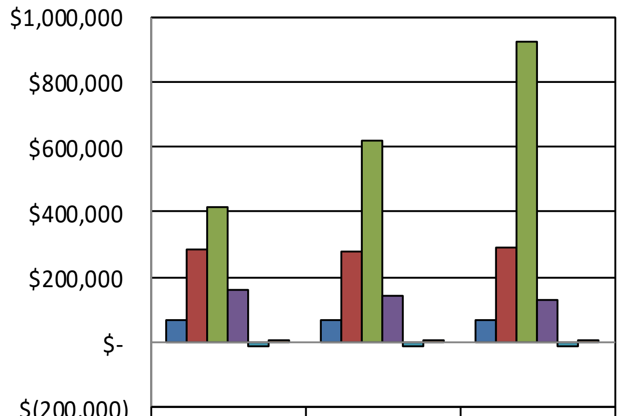
For the year ended June 30, 2019, fiduciary net position increased by $251.0 million, or 2.6%, from June 30, 2018. Total assets increased $112.5 million, or 1.1 %, due to a 1.0% increase in investments change in fair value and 0.8% increase in securities lending collateral. The System achieved a money-weighted rate of return of 6% compared to the prior year of 8.4% resulting in the majority of the increase in fiduciary net position. Total liabilities decreased $138.4 million, or 14.2%, due to a 28.3% decrease in pending purchases of securities.

Fiscal year 2019 resulted in a $193.2 million decrease in total additions and a $28.4 million increase in total deductions. Compared to the prior year, the decrease in additions was primarily due to a decrease of $208.2 million in the fair value of investments. Deductions increased 4.5% due to an $28.5 million increase in retirement, death, and survivor benefits.

Additions to Fiduciary Net Position

For the year ended June 30, 2019, total additions to fiduciary net position decreased $193.2 million from the prior year. The net decrease in net appreciation of the fair value of investments of $208.2 million was the result of a weaker market in 2019. Interest income increased $10.9 million, or 14.1%, and dividend income increased $3.9 million, or 5.8%. Securities lending net income decreased $0.1 million or 5.3%. Contributions were $4.1 million, or 1.2% higher than the prior year due to the pathfinder excess contribution for define contribution plan.

Additions to Fiduciary Net Position
Comparative Data for Fiscal Years Ended June 30, 2019, 2018 and 2017
($ thousands)



	2019	2018	2017
Member contributions	$66,566	$66,930	$70,276
State and local agency contributions	282,474	277,987	288,339
Net appreciation	414,354	622,573	925,746
Interest, dividends, and other investment income	160,302	145,201	132,117
Investment expenses	(13,783)	(9,624)	(10,643)
Securities lending income	2,205	2,328	2,393

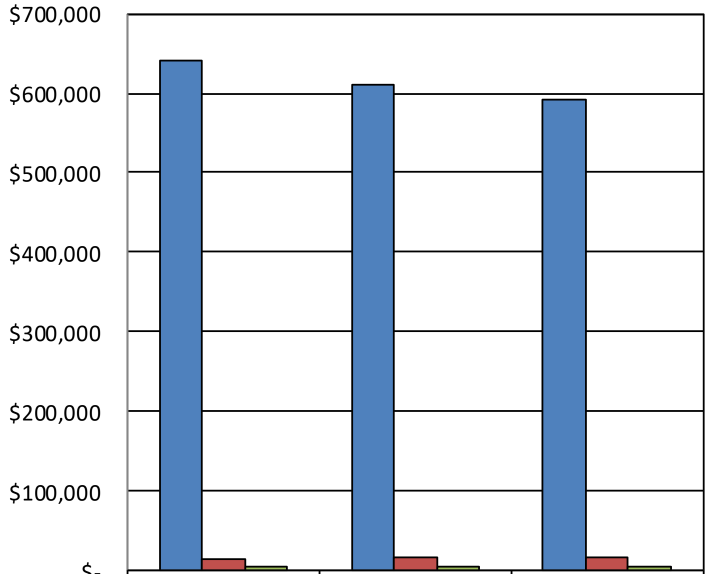
For the year ended June 30, 2018, total additions to fiduciary net position decreased $302.9 million from the prior year. The net decrease in net appreciation of the fair value of investments of $303.2 million was the result of a strong market that wasn't quite as strong as fiscal year 2017. Interest income increased $8.7 million, or 12.7%, and dividend income increased $4.5 million, or 7.1%. Securities lending net income decreased $0.1 million, or 2.7%.

Contributions were $13.7 million, or 3.8%, lower than the prior year due to the closure of the defined benefit pension plan to new state employees. HISP remains open to new retirees.

Deductions to Fiduciary Net Position

For the year ended June 30, 2019, total deductions increased $28.4 million, or 4.5%, from the prior year. Retirement, death, and survivor benefits increased $28.5 million, or 4.7%, due to a 1.7% increase in the number of retirees at year end and a 1.5% increase in the average benefit. Refunds and withdrawals decreased $0.6 million or 3.7% from prior year and a 7.8% increase in administrative costs was primarily due to new IT consulting and IT services.

Deductions to Fiduciary Net Position
Comparative Data for Fiscal Years Ended June 30, 2019, 2018 and 2017
($ thousands)



	2019	2018	2017
Retirement, death and survivor benefits	$639,965	$611,566	$592,961
Refunds and withdrawals	15,369	15,957	15,950
Administrative expenses	5,755	5,340	5,397

For the year ended June 30, 2018, total deductions increased $18.5 million, or 3.0%, from the prior year. Retirement, death, and survivor benefits increased $18.6 million, or 3.1%, due to a 2.0% increase in the number of retirees at year end and a 1.3% increase in the average benefit. Refunds and withdrawals remained unchanged from prior year. The 1.1% decrease in administrative costs was primarily due to a decrease in professional services costs.

Investments

The investment portfolio is reported in the chart below by the asset class of the investment managers' portfolios which includes the cash and cash equivalents in those portfolios. In April 2017, the System's Board voted to modify the policy asset allocation to increase exposure to international equity and reduce exposure to U.S. equity. A summary of the System's cash, cash equivalents, and investments for fiscal years ended June 30, 2019 and 2018 is as follows:

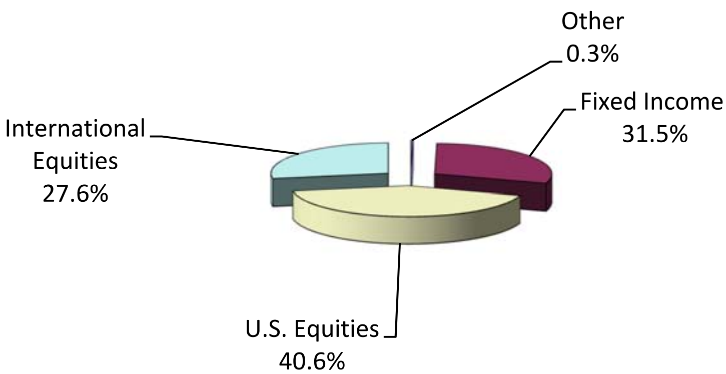
Cash, Cash Equivalents, and Investment Portfolio
($ millions)

	June 30,		
	2019	**2018**	**2017**
Fixed income	$ 3,175.0	$ 3,171.8	$ 3,149.1
U.S. equities	4,030.2	4,073.6	3,762.8
International equities	2,739.0	2,691.5	2,532.8
Other	17.8	17.9	20.8
Total managed investments	9,962.0	9,954.8	9,465.5
Cash equivalents on deposit with State	3.5	3.6	2.8
Real estate	11.8	12.6	12.1
Securities lending collateral	480.2	476.5	640.0
Total cash, cash equivalents, and investments	$ 10,457.5	$10,447.5	$ 10,120.4

The 2019 increase in the System's managed investments is reflective of the increase in domestic and international equity markets for the year. The System's overall return for the year ended June 30, 2019 was 6.1%. U.S. equities showed a return of 7.1%, and international equities showed a return of 2.0%. Fixed income showed a return of 8.4%. An amount of $309 million of U.S. equities was used to supplement the cash requirements of monthly retiree benefit payments. The change in securities lending collateral is dependent on the securities loaned by the System's master custodian at year end.

As of June 30, 2019, the distribution of the System's investments including accrued income and pending trades was as follows:

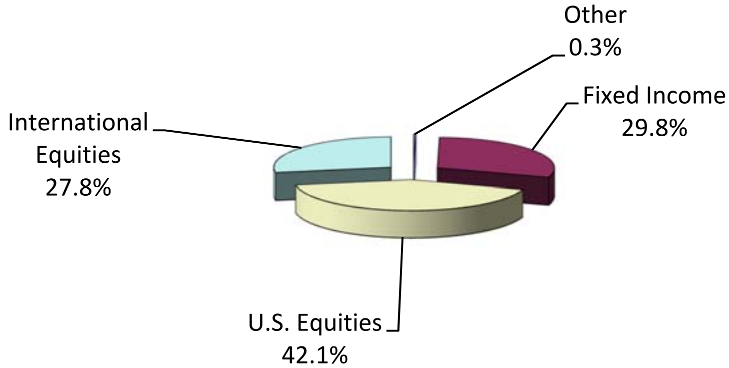
2019



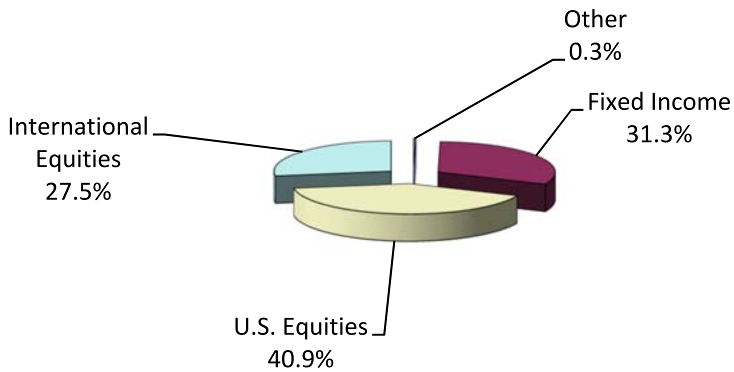
The 2018 increase in the System's managed investments is reflective of the increase in domestic and international equity markets for the year. The System's overall return for the year ended June 30, 2018 was 8.4%. U.S. equities showed a return of 15.5% exceeding the market trend for the asset class, and international equities showed a return of 7.3%. Fixed income showed a return of 0.3%. An amount of $256.5 million of U.S. equities and $25.0 million of international equities was used to supplement the cash requirements of monthly retiree benefit payments. The change in securities lending collateral is dependent on the securities loaned by the System's master custodian at year end.

At June 30, 2018 and 2017 the distribution of the System's investments including accrued income and pending trades was as follows:

2018



2017



Economic Factors

Ratio of Fiduciary Net Position to Total Pension Liability and to Total HISP Liability

The ratio of fiduciary net position to the total pension liability was as follows:

	June 30,		
	2019	2018	2017
Total pension liability	$ 9,726,326,176	$ 9,555,990,069	$ 9,454,641,808
Plan fiduciary net position	$ 9,593,138,099	$ 9,360,947,061	$ 8,913,978,627
Ratio of fiduciary net position to total pension liability	98.63%	97.96%	94.28%

The ratio of fiduciary net position to the total HISP liability was as follows:

	June 30,		
	2019	2018	2017
Total HISP liability	$ 321,048,037	$ 328,143,546	$ 326,975,262
Plan fiduciary net position	$ 359,922,778	$ 341,084,506	$ 315,521,246
Ratio of fiduciary net position to total HISP liability	112.11%	103.94%	96.50%

System Amendments

Other

The actuarial assumptions used in the July 1, 2019, valuation are based on the results of the most recent actuarial experience study, which covered the three-year period ending June 30, 2016.

Other than changes in the fair value of System assets as may be impacted by the equity and bond markets, no other matters are known by management to have a significant impact on the operations or financial position of the System.

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Financial Reporting Division, OPERS, P.O. Box 53007, Oklahoma City, Oklahoma 73152-3007.

Statements of Fiduciary Net Position

As of June 30, 2019

	Pension Plan	Health Insurance Subsidy Plan	Combined
Assets			
Cash equivalents	$ 127,347,308	$ 6,926,474	134,273,782
Receivables:			
Member contributions	3,552,457	-	3,552,457
State and local agency contributions	12,393,685	462,360	12,856,045
Due from brokers for securities sold	283,030,449	10,558,679	293,589,128
Accrued interest and dividends	23,154,705	863,808	24,018,513
Total receivables	322,131,296	11,884,847	334,016,143
Investments, at fair value:			
Short-term investments	17,620,045	657,334	18,277,379
Government obligations	2,051,666,272	76,539,042	2,128,205,314
Corporate bonds	927,873,096	34,615,046	962,488,142
Domestic equities	3,839,428,357	143,232,876	3,982,661,233
International equities	2,641,176,273	98,531,179	2,739,707,452
Real estate	11,327,418	422,582	11,750,000
Securities lending collateral	462,899,794	17,268,840	480,168,634
Total investments	9,951,991,255	371,266,899	10,323,258,154
Other assets	953,433	35,576	989,009
Total assets	10,402,423,292	390,113,796	10,792,537,088
Liabilities			
Due to brokers and investment managers	346,385,399	12,922,178	359,307,577
Securities lending collateral	462,899,794	17,268,840	480,168,634
Total liabilities	809,285,193	30,191,018	839,476,211
Net position restricted for pension/HISP benefits	$ 9,593,138,099	$ 359,922,778	$ 9,953,060,877

See accompanying notes to financial statements.

Statements of Fiduciary Net Position

As of June 30, 2018

	Pension Plan	Health Insurance Subsidy Plan	Combined
Assets			
Cash equivalents	$ 216,378,231	$ 6,637,184	$ 223,015,415
Receivables:			
Member contributions	3,197,960	-	3,197,960
State and local agency contributions	11,237,746	411,148	11,648,894
Due from brokers for securities sold	188,026,907	6,879,178	194,906,085
Accrued interest and dividends	21,173,371	774,654	21,948,025
Total receivables	223,635,984	8,064,980	231,700,964
Investments, at fair value:			
Short-term investments	70,023,195	2,561,880	72,585,075
Government obligations	1,926,992,287	70,501,179	1,997,493,466
Corporate bonds	917,431,462	33,565,263	950,996,725
Domestic equities	3,871,466,724	141,641,929	4,013,108,653
International equities	2,605,843,543	95,337,716	2,701,181,259
Real estate	12,155,283	444,717	12,600,000
Securities lending collateral	459,653,458	16,816,941	476,470,399
Total investments	9,863,565,952	360,869,625	10,224,435,577
Other assets	782,290	28,625	810,915
Total assets	10,304,362,457	375,600,414	10,679,962,871
Liabilities			
Due to brokers and investment managers	483,761,938	17,698,967	501,460,905
Securities lending collateral	459,653,458	16,816,941	476,470,399
Total liabilities	943,415,396	34,515,908	977,931,304
Net position restricted for pension/HISP benefits	$ 9,360,947,061	$ 341,084,506	$ 9,702,031,567

See accompanying notes to financial statements.

Statements of Changes in Fiduciary Net Position

As of June 30, 2019

	Pension Plan	Health Insurance Subsidy Plan	Combined
Additions			
Contributions:			
Members	$ 66,566,433	$ -	$ 66,566,433
State and local agencies	263,729,659	18,744,000	282,473,659
Total contributions	330,296,092	18,744,000	349,040,092
Investment income:			
From investing activities:			
Net appreciation in fair value of investments	400,598,110	13,756,155	414,354,265
Interest	85,213,525	3,078,501	88,292,026
Dividends	69,106,891	2,373,064	71,479,955
Real estate	512,892	17,612	530,504
Total investment income	555,431,418	19,225,332	574,656,750
Less – Investment expenses	(13,325,598)	(457,588)	(13,783,186)
Income from investing activities	542,105,820	18,767,744	560,873,564
From securities lending activities:			
Securities lending income	13,846,518	475,476	14,321,994
Securities lending expenses:			
Borrower rebates	(11,370,738)	(390,460)	(11,761,198)
Management fees	(344,384)	(11,826)	(356,210)
Income from securities lending activities	2,131,396	73,190	2,204,586
Net investment income	544,237,216	18,840,934	563,078,150
Total additions	874,533,308	37,584,934	912,118,242
Deductions			
Retirement, death and survivor benefits	621,409,080	18,555,603	639,964,683
Refunds and withdrawals	15,369,288	-	15,369,288
Administrative expenses	5,563,902	191,059	5,754,961
Total deductions	642,342,270	18,746,662	661,088,932
Net increase in net position	232,191,038	18,838,272	251,029,310
Net position restricted for pension/HISP benefits			
Beginning of year	9,360,947,061	341,084,506	9,702,031,567
End of year	$ 9,593,138,099	$ 359,922,778	$ 9,953,060,877

See accompanying notes to financial statements.

Statements of Changes in Fiduciary Net Position

For the Year Ended June 30, 2018

	Pension Plan	Health Insurance Subsidy Plan	Combined
Additions			
Contributions:			
Members	$ 66,929,560	$ -	$ 66,929,560
State and local agencies	258,907,270	19,080,000	277,987,270
Total contributions	325,836,830	19,080,000	344,916,830
Investment income:			
From investing activities:			
Net appreciation in fair value of investments	601,761,578	20,811,063	622,572,641
Interest	74,735,617	2,668,344	77,403,961
Dividends	65,316,485	2,258,877	67,575,362
Real estate	214,497	7,418	221,915
Total investment income	742,028,177	25,745,702	767,773,879
Less – Investment expenses	(9,302,385)	(321,710)	(9,624,095)
Income from investing activities	732,725,792	25,423,992	758,149,784
From securities lending activities:			
Securities lending income	10,662,426	368,745	11,031,171
Securities lending expenses:			
Borrower rebates	(8,046,032)	(278,260)	(8,324,292)
Management fees	(366,011)	(12,658)	(378,669)
Income from securities lending activities	2,250,383	77,827	2,328,210
Net investment income	734,976,175	25,501,819	760,477,994
Total additions	1,060,813,005	44,581,819	1,105,394,824
Deductions			
Retirement, death and survivor benefits	592,725,826	18,840,056	611,565,882
Refunds and withdrawals	15,957,261	-	15,957,261
Administrative expenses	5,161,484	178,503	5,339,987
Total deductions	613,844,571	19,018,559	632,863,130
Net increase in net position	446,968,434	25,563,260	472,531,694
Net position restricted for pension/HISP benefits			
Beginning of year	8,913,978,627	315,521,246	9,229,499,873
End of year	$ 9,360,947,061	$ 341,084,506	$ 9,702,031,567

See accompanying notes to financial statements.

Notes to Financial Statements

June 30, 2019 and 2018

(1) Reporting Entity

The Oklahoma Public Employees Retirement System (OPERS)(the System) is a defined benefit cost-sharing multiple employer plan consisting of a retirement plan and a cost-sharing multiple employer health insurance subsidy plan (HISP) both held in irrevocable trusts. The System, together with other similar fiduciary pension trust funds of the state of Oklahoma (the State), is a component unit of the State. The System is administered by the Oklahoma Public Employees Retirement System. As set forth in Title 74, of the Oklahoma Statutes, at Section 921, administrative expenses are paid with funds provided by operations of the System.

(2) Summary of Significant Accounting Policies

The following are the significant accounting policies followed by the System.

(a) Basis of Accounting

The financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade dates. Member and employer contributions are established by statute as a percentage of salaries and are recognized when due, pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the System.

(b) ***Investments –*** The System's investments are presented at fair value. Purchases and sales are recorded at the trade date. At month end, there may be certain pending trades that were initiated by managers but not confirmed and, therefore, are not included in the fair value of investments.
The System is authorized to invest in eligible investments as approved by the Board of Trustees (the Board) as set forth in its investment policy.
System investments are reported at fair value, which is the price that would be received if the investments were sold in an orderly transaction between a willing buyer and a willing seller. Short-term investments include bills and notes, commercial paper, and international foreign currency contracts. Short-term investments, debt securities, and equity securities are reported at fair value, as determined by the System's custodial agent, using pricing services or prices quoted by independent brokers based on the latest reported sales prices at current exchange rates for securities traded on national or international exchanges. The fair value of the pro rata share of units owned by the System in equity index and commingled trust funds is determined by the respective fund trustee based on quoted sales prices of the underlying securities. The investment in real estate is valued using an annual third-party appraisal.

Cash equivalents include investments in money market funds and investment pools and are reported at amortized cost.

Net investment income (loss) includes net appreciation (depreciation) in the fair value of investments, interest income, dividend income, securities lending income and expenses, and investment expenses, which include investment management and custodial fees and all other significant investment related costs. Foreign currency translation gains and losses are reflected in the net appreciation (depreciation) in the fair value of investments.

The System's international investment managers may enter into forward foreign exchange contracts to protect against fluctuation in exchange rates between the trade date and the settlement date of foreign investment transactions. Any gains and losses on these contracts are included in income in the period in which the exchange rates change.

The System's investment policy provides for investments in combinations of stocks, bonds, fixed income securities, and other investment securities along with investments in commingled, mutual, and index funds. Investment securities and investment securities underlying commingled or mutual fund investments are exposed to various risks, such as interest rate and credit risks. Due to the risks associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities may occur in the near term, and those changes could materially affect the amounts reported in the statement of fiduciary net position.

(c) Use of Estimates

Management of the System has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these financial statements in conformity with U.S. generally accepted accounting principles (GAAP), note disclosure and required supplementary information (RSI). Actual results could differ from these estimates.

(d) Risk and Uncertainties

Contributions to the System and the actuarial information included in Note (6) Net Pension Asset, Net HISP Asset and Actuarial Information and the RSI are reported based on certain assumptions pertaining to interest rates, inflation rates, and employee compensation and demographics. Due to the changing nature of these assumptions, it is at least reasonably possible that changes in these assumptions may occur in the near term and, due to the uncertainties inherent in setting assumptions, that the effect of such changes could be material to the financial statements.

(e) Composition of Board of Trustees

The Board of Trustees of OPERS consists of fourteen appointed members, some by position and some by association. Those serving through position are a member of the Corporation Commission as selected by the Commission, a member of the Tax Commission as selected by the Tax Commission, the Administrator of the Office of Personnel Management or designee, the State Insurance Commissioner or designee, the Director of State Finance or designee, and the State Treasurer or designee. Of the remaining members, three are appointed by the Governor, one is appointed by the Supreme Court, two are appointed by the Speaker of the House of Representatives and two are appointed by the President Pro Tempore of the Senate. Qualifications for certain of these appointees include a balance of individuals having experience in investment management, pension management, public fund management, the banking profession or a licensed attorney or a licensed accountant.

(3) System Description and Contribution Information

The following brief description of the System is provided for general information purposes only. Participants should refer to Title 74 of the Oklahoma Statutes, Sections 901 through 932 and 935, as amended, for more complete information.

(a) General

The System is a multiple-employer, cost-sharing public employee retirement plan, which is a defined benefit pension plan covering substantially all state employees except employees covered by seven other plans sponsored by the State. It also covers employees of participating county and local agencies. Nearly all new state employees first employed by a System participating employer on or after November 1, 2015, will participate in the State's new defined contribution plan. Therefore, the System is closed to nearly all new State employees, but remains open to new employees of participating counties and local agencies. Agencies and/or participants not included in the System are as follows: teachers, municipal police, municipal firefighters, judicial, wildlife, state law enforcement and nearly all State employees first employed on or after November 1, 2015.

The System also administers the Health Insurance Subsidy Plan, a cost-sharing multiple-employer defined benefit OPEB plan that provides OPEB covering the same categories of employees covered by the pension plan.

The supervisory authority for the management and operation of the System and HISP is the Board, which acts as a fiduciary for investment of the funds and the application of System interpretations. At June 30, the System's membership consisted of:

	2019	2018
Inactive members or their beneficiaries currently receiving benefits	35,869	35,260
Inactive members entitled to but not yet receiving benefits	6,106	6,024
Active members	34,536	36,329
Total	76,511	77,613

Of the inactive members or their beneficiaries currently receiving benefits 14,563 and 13,998 are retirees and beneficiaries in the HISP as of June 30, 2019 and 2018, respectively. The Plan also includes 54,667 and 53,406 nonvested terminated members entitled to a refund of their member contributions as of June 30, 2019 and 2018, respectively.

For purposes of the discussion on benefits and contributions, the members are described in the following categories: hazardous duty members, which includes certain employees of the Department of Corrections who are classified as correction officers, probation and parole officers, and fugitive apprehension agents along with Oklahoma Military Department firefighters; elected officials, which includes elected officials who serve the State and participating counties; and State, county, and local agency employees, which includes all other employees previously described. If the member category is not specifically identified, the attributes of the System discussed apply to all members.

(b) Benefits

Pensions

Members qualify for full retirement benefits at their specified normal retirement age or, for any person who became a member prior to July 1, 1992, when the sum of the member's age and years of credited service equals or exceeds 80 (Rule of 80), and for any person who became a member after June 30, 1992, when the member's age and years of credited service equals or exceeds 90 (Rule of 90). Normal retirement date is further qualified to require that all members employed on or after January 1, 1983 must have six or more years of full-time equivalent employment with a participating

employer before being eligible to receive benefits. Credited service is the sum of participating and prior service. Prior service includes nonparticipating service before January 1, 1975, or the entry date of the employer and active wartime military service.
A member with a minimum of ten years of participating service may elect early retirement with reduced benefits beginning at age 55 if the participant became a member prior to November 1, 2011, or age 60 if the participant became a member on or after November 1, 2011.
Disability retirement benefits are available for members having eight years of credited service whose disability status has been certified as being within one year of the last day on the job by the Social Security Administration. Disability retirement benefits are determined in the same manner as retirement benefits, but payable immediately without an actuarial reduction.

Health Insurance Subsidy Plan

HISP provides a health insurance premium subsidy for retirees of the System who elect to maintain health insurance with the Oklahoma Employees Group Insurance Division (EGID) or other qualified insurance plan provided by the employer. This subsidy continues until the retiree terminates health insurance coverage with EGID or other qualified plan, or until death. The subsidy is only for the retiree, not joint annuitants or beneficiaries.

The following are various benefit attributes for each member category:

State, County, and Local Agency Employees

Benefits are determined at 2% of the average annual salary received during the highest thirty-six months of the last ten years of participating service, but not to exceed the applicable annual salary cap, multiplied by the number of years of credited service. Members who join OPERS on or after July 1, 2013, will have their salary averaged over the highest 60 months of the last ten years. Normal retirement age under the System is 62 or Rule of 80/90 if the participant became a member prior to November 1, 2011, or age 65 or Rule of 90 if the participant became a member on or after November 1, 2011.

Members who elect to pay the additional contribution rate, which became available in January 2004, will receive benefits using a 2.5% computation factor for each full year the additional contributions are made. In 2004, legislation was enacted to provide an increased benefit to retiring members who were not yet eligible for Medicare. The Medicare Gap benefit option became available to members under age 65 who retired on or after May 1, 2006. Members may elect to receive a temporary increased benefit to cover the cost of health insurance premiums until the member is eligible to receive Medicare. After the member becomes eligible for Medicare, the retirement benefit will be permanently reduced by an actuarially determined amount. The option is irrevocable, must be chosen prior to retirement, and is structured to have a neutral actuarial cost to the System.

Members become eligible to vest fully upon termination of employment after attaining eight years of credited service, or the members' contributions may be withdrawn upon termination of employment.

Elected Officials

Benefits are determined as the greater of the calculation described in the preceding section or, based on the official's contribution election, either 1.9% or 4.0% of the highest annual covered compensation received as an elected official, but not to exceed the applicable annual salary cap, multiplied by the number of years of credited service. For members elected prior to November 1, 2011, normal retirement age under the System is 60 with six years of participation as an elected official or Rule of 80. For members elected on or after November 1, 2011, the normal retirement age is 62 with 10 years of participation as an elected official or 65 with eight years of participation as an elected official. Members elected prior to November 1, 2011 become eligible to vest fully upon termination of employment after attaining six years of participating service as an elected official. Members elected on or after November 1, 2011 become eligible to vest fully upon termination of employment after attaining eight years of participating service as an elected official. The members' contributions may be withdrawn upon termination of employment.

Hazardous Duty Members

Benefits are determined at (a) 2.5% of the final average compensation up to the applicable annual salary cap multiplied by the number of years of service as a hazardous duty member not to exceed 20 years and (b) 2.0% of the final average compensation multiplied by the number of years of service in excess of 20 years and any other years of service creditable. Normal retirement age under the System is 62 or at completion of 20 years of creditable service as a hazardous duty member or Rule of 80/90 if participant became a member prior to November 1, 2011, or age 65 or at completion of 20 years of creditable service as a hazardous duty member or Rule of 90 if participant became a member on or after November 1, 2011.

Military Department firefighters are not restricted to a maximum of 20 years of hazardous duty for the 2.5% computation.

However, members who contributed prior to July 1, 1990 but do not qualify for normal retirement as a hazardous duty member shall receive benefits computed at 2.5% of the final compensation for those full time years as a hazardous duty member after July 1, 1990, 2.25% before July 1, 1990, and 2.0% for all other years of credited service. Members become eligible to vest fully after 20 years of full time service as a hazardous duty member.

Upon the death of an active member, the accumulated contributions of the member are paid to the member's named beneficiary(ies) in a single lump sum payment. If a retired member elected a joint annuitant survivor option or an active member was eligible to retire with either reduced or unreduced benefits or eligible to vest the retirement benefit at the time of death, benefits can be paid in monthly payments over the life of the spouse if the spouse so elects.

Benefits are payable to the surviving spouse of an elected official only if the elected official had at least six years of participating elected service and was married at least three years immediately preceding death. Survivor benefits are terminated upon death of the named survivor and, for elected officials, remarriage of the surviving spouse. Upon the death of a retired member, with no survivor benefits payable, the member's beneficiary(ies) are paid the excess, if any, of the member's accumulated contributions over the sum of all retirement benefit payments made.

Upon the death of a retired member, the System will pay a $5,000 death benefit to the member's beneficiary or estate of the member if there is no living beneficiary. The death benefit will be paid in addition to any excess employee contributions or survivor benefits due to the beneficiary. Death benefits paid for the years ended June 30, 2019 and 2018 totaled approximately $5,570,000 and $5,576,000, respectively.

Legislation was enacted in 1999 which provided a limited additional benefit for certain terminated members eligible to vest as of July 1, 1998. This limited benefit is payable as an additional $200 monthly benefit upon the member's retirement up to the total amount of certain excess contributions paid by the participant to the System. In April 2001, limited benefit payments began for qualified retired members

Benefits are established and may be amended by the State Legislature from time to time.

(c) Contributions

The contribution rates for each member category of the System are established by the Oklahoma Legislature after recommendation by the Board based on an actuarial calculation, which is performed to determine the adequacy of such contribution rates. An actuarially determined portion of the total contributions to the System are set aside to finance the cost of the benefits of the HISP in accordance with provisions of the Internal Revenue Code.

Each member participates based on their qualifying gross salary earned, excluding overtime. There is no cap on the qualifying gross salary earned, subject to Internal Revenue Service (IRS) limitations on compensation. Only employers contribute to the HISP.

The following contribution rates were in effect:

State, County, and Local Agency Employees

For 2019 and 2018, *state agency employers* contributed 16.5% on all salary, and *state employees* contributed 3.5% on all salary.

For 2019 and 2018, contributions of *participating county and local agencies* totaled 20.0% of salary composed of a minimum employee contribution rate of 3.5% up to a maximum of 8.5% and a minimum employer contribution rate of 11.5% up to a maximum of 16.5%.

Members have the option to elect to increase the benefit computation factor for all future service from 2.0% to 2.5%. The election is irrevocable, binding for all future employment under OPERS, and applies only to full years of service. Those who make the election pay the standard contribution rate plus an additional contribution rate, 2.91% which is actuarially determined. The election is available for all state, county, and local government employees, except for elected officials and hazardous duty members.

Elected Officials

Elected officials' employee contributions are based on the maximum compensation levels set for all members, and the participating employers are required to contribute on the elected officials' covered salary using the same percentage and limits as applicable for state agencies. Members elected prior to November 1, 2011 must select an employee contribution rate of 4.5%, 6.0%, 7.5%, 8.5%, 9.0% or 10.0%. Members elected on or after November 1, 2011 have a contribution rate of 3.5%.

Effective July 1, 1999, elected officials must affirmatively elect or decline participation in the System within 90 days after taking office. This decision is irrevocable, and failure of an elected official to decline to participate in the System will be deemed as an irrevocable election to participate and contribute at the highest rate (currently 3.5% for officials elected on or after November 1, 2011). All current elected officials who had not elected to participate in the System must have either elected, including selecting a contribution rate, or declined to participate in the System on or before December 1, 1999.

Elected officials who are first elected or appointed to an elected office between November 1, 2010 and October 31, 2011 may only select one of two benefit computation factors - 1.9% or 4.0% - with the respective employee contribution rates of 4.5% or 10.0%.

Effective November 1, 2011, elected officials who are first elected or appointed to an elected office participate with a benefit computation factor of 2.0% with an employee contribution rate of 3.5%.

Hazardous Duty Members

For 2019 and 2018, hazardous duty members contributed 8.0%, and their employer agencies contributed 16.5% on all salary.

(d) Participating Employers

At June 30, the number of participating employers for the pension plan and the HISP plan was as follows:

	2019	2018
State agencies	118	117
County governments	75	75
Local government towns and cities	29	29
Other local governmental units	63	63
Total	285	284

(e) Defined Contribution System created for New Members

House Bill 2630 and Senate Bill 2120 directed OPERS to establish a defined contribution retirement system for members first employed by a participating employer of the system on or after November 1, 2015, including statewide elected officials and legislators. The provisions of this bill are not applicable to hazardous duty members, district attorneys, assistant district attorneys or other employees of the district attorney's office who will continue to participate in the defined benefit plan. Also excluded from the plan are employees of a county, county elected officials, county hospital, city or town, conservation district, circuit engineering district, and any public or private trust in which a county, city or town participates and is the primary beneficiary.

This new defined contribution plan was created and implemented during the year ended June 30, 2016. Under this new plan, participating employees contribute a minimum of 4.5% of their compensation. Participating employers match employee contributions up to 7%. In addition to the matching contributions, participating employers are required to remit to OPERS the difference between the matching contributions for defined contribution plan members and the amount the participating employer would have contributed for a defined benefit plan member.

(4) Cash Equivalents

Cash and cash equivalents represent short-term investment funds held by the Office of the State Treasurer (State Treasurer) and the System's custodial agent, and foreign currency.

At June 30, cash and cash equivalents were:

	2019	2018
Cash equivalents		
State Treasurer	$ 3,594,402	$ 3,550,103
Custodial agent	129,704,193	218,150,223
Foreign currency	975,187	1,315,089
Total cash and cash equivalents	$ 134,273,782	$223,015,415

Cash is deposited to *OK INVEST*, an internal investment pool of the State Treasurer with holdings limited to obligations of the U.S. Government, its agencies and instrumentalities, agency senior debt and mortgage-backed pass-through securities, tri-party repurchase agreements, money market mutual funds, collateralized certificates of deposit, commercial paper, obligations of state and local governments, and

State of Israel Bonds. Participants are limited to qualifying agencies and funds within the State's reporting entity, and each participant maintains an interest in the underlying investments of *OK INVEST* and shares the risk of loss on the fund in proportion to the respective investment in the fund. The custodial agent cash equivalents consist of temporary investments in commingled trust funds of the System's custodial agent. The fund is composed of high-grade money market instruments with short maturities. Each participant in the fund shares the risk of loss on the fund in proportion to the respective investment in the fund.

Deposits are exposed to custodial credit risk if they are not covered by depository insurance and the deposits are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agency but not in the depositor-government's name. At June 30, 2019 and 2018, the cash equivalents in *OK INVEST* and the System's custodial agent cash equivalents were not exposed to custodial credit risk because their existence cannot be evidenced by securities that exist in physical or book entry form.

The System holds foreign currency in banks outside the United States as a result of transactions of international investment managers. The foreign currency is in accounts in the name of the System's custodial agent and is uncollateralized, and the System is exposed to custodial credit risk. At June 30, 2019 and 2018, the foreign currency holdings were $975,187 and $1,315,089, respectively. The System's exposure to foreign currency risk is detailed in the section entitled Investments, Foreign Currency Risk.

(5) Investments

(a) General

Investments are pooled for administrative purposes and then allocated to the pension plan and HISP based on actuarial data, inflows and outflows. The OPERS Statement of Investment Policy states that the Board believes that System assets should be managed in a fashion that reflects the System's unique liabilities and funding resources, incorporating accepted investment theory and reliable empirical evidence. Specifically, the Board has adopted the following principles:

- Asset allocation is the key determinant of return, and therefore, commitments to asset allocation targets will be maintained through a disciplined rebalancing program.
- Diversification, both by and within asset classes, is the primary risk control element.
- Passive fund portfolios are suitable investment strategies, especially in highly efficient markets. These index funds which are externally managed by professional investment management firms selected through due diligence of the Board are deemed to be actively managed accounts within the meaning of Section 909.1(D) of Title 74 of the Oklahoma Statutes.

The investment policy, guidelines, and objectives which govern the investment of System and HISP assets shall be developed and adopted by the Board of Trustees at a regularly scheduled public Board meeting, at least annually, prior to August 1 of each year. Changes to the investment policy may be made, as necessary, at any public meeting of the Board of Trustees, in compliance with the Open Meeting Act. During 2015, the investment policy was modified to allow investments in certain real estate-related assets.

The asset allocation guidelines established by policy at June 30, 2019 and 2018, were U.S. equities – 40%, international equities – 28% and domestic fixed income – 32%. The guidelines also establish minimum and maximum percentages for each asset class allocation, and when allocations move outside these limits, portfolios are rebalanced.

The fair value of investments held by the System at June 30 was as follows:

	2019	2018
U.S. Treasury notes/bonds	$ 1,109,226,116	$ 994,996,296
U.S. TIPS index fund	324,711,724	309,268,778
Government agencies	11,445,632	6,652,326
Government mortgage-backed securities	659,025,220	651,534,262
Foreign bonds	14,546,433	18,539,023
Municipal bonds	9,250,189	16,502,780
Corporate bonds	746,247,542	815,197,984
Asset-backed securities	129,094,906	137,825,864
Commercial mortgage-backed securities	57,584,912	49,162,460
Non government backed collateralized mortgage obligations	47,838,648	21,394,430
Domestic equities	2,306,945,182	2,360,696,629
U.S. equity index fund	1,675,716,050	1,652,412,024
International equities	957,058,577	952,492,471
International equity index funds	1,782,648,389	1,748,689,851
Real estate	11,750,000	12,600,000
Securities lending collateral	480,168,634	476,470,399
Total investments	$ 10,323,258,154	$ 10,224,435,577

The System participates in fixed income and international and domestic equity index funds managed by BlackRock Institutional Trust Company, N.A. (BTC). BTC, a subsidiary of BlackRock Inc., is a national banking association and operates as a limited purpose trust company. Its primary regulator is the Office of the Comptroller of the Currency (OCC), the agency of the U.S. Treasury Department that regulates United States national banks. Each fund is a collective fund which is a group trust and an entity separate from BTC, other funds, and the investing participants. BTC is trustee of each of the collective fund trusts and holds legal title to each trust's assets for the exclusive benefit of the System. The fair value of the System's position in the pool is the same as the value of the pool shares. As of June 30, 2019 and 2018, the System was invested in two domestic equity index funds, two international equity index funds, and a fixed income index fund. The System shares the risk of loss in these funds with other participants in proportion to its respective investment. Because the System does not own any specific identifiable investment securities of these funds, the risk associated with any derivative investments held in these funds is not apparent. The degree of risk depends on the underlying portfolios of the funds, which were selected by the System in accordance with its investment policy guidelines including risk assessment.

The international funds invest primarily in equity securities of entities outside the United States and may enter into forward contracts to purchase or sell securities at specified dates in the future at a guaranteed price in a foreign currency to protect against fluctuations in exchange rates of foreign currency.

Securities Lending

The System's investment policy provides for its participation in a securities lending program. The program is administered by the System's master custodian, and there are no restrictions on the amount of loans that can be made. During 2019 and 2018, the types of securities loaned were primarily U.S. Government and corporate bonds, domestic equity securities, and international equity securities. Certain securities of the System are loaned to participating brokers, who must provide collateral in the form of cash, U.S. Treasury or Government Agency securities, or letters of credit issued by approved banks.

Under the terms of the securities lending agreement, collateral is required to be provided in the amount of 102% of the fair value of U.S. securities loaned and 105% of the fair value of non-U.S. securities loaned. At June 30, 2019 and 2018, the System had no credit risk exposure to borrowers because the amounts the System owes the borrowers exceed the amounts the borrowers owe the

System. The market value of the cash and non-cash collateral for those securities on loan were $480,168,634 and $218,712,750 in FY2019 and $476,470,399 and $164,860,108 in FY2018 respectively. The master custodian provides for full indemnification to the System for any losses that might occur in the program due to the failure of a broker to return a security that was borrowed (and if the collateral is inadequate to replace the securities lent) or failure to pay the System for income of the securities while on loan. The loan premium paid by the borrower of the securities is apportioned between the System and its custodial agent in accordance with the securities lending agreement. All securities loans can be terminated on demand by either the lender or the borrower.

Securities On Loan	2019	%	2018	%
Collateralized by Cash Collateral	$ 471,408,191	69%	$ 465,375,945	74%
Collateralized by non- Cash Collateral	214,659,118	31%	160,267,183	26%
Total	$ 686,067,309	100%	$ 625,643,128	100%

The securities lending agreement provides that cash collateral be invested in the custodial agent's short-term investment pool and sets forth credit -quality standards, acceptable investments, diversification standards, and maturity and liquidity constraints for the investment fund. The System's investment guidelines do not require a matching of investment maturities with loan maturities but do establish minimum levels of liquidity and other investment restrictions designed to minimize the interest rate risk associated with not matching the maturities of the investments with the loans. At June 30, 2019 and 2018, the cash collateral investments had an average weighted maturity of 16 and 18 days, respectively, and the relationship between the maturities of the custodial agent's investment pool and the System's loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the System cannot determine. The System's non-cash collateral is represented by its allocated share of a pool administered by the agent for the System and other pool participants.

(b) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will default or will otherwise not fulfill its obligations.

The System's investment guidelines provide for the domestic fixed income managers to follow one of four investment styles and specifies quality guidelines for each style.

The *Constrained Core* manager will invest in a broadly diversified portfolio with characteristics similar to a broad fixed income market index, such as the Barclays Capital Aggregate Bond Index. The total portfolio minimum quality should be single-A as rated by a nationally recognized statistical rating organization (NRSRO). The portfolio should primarily consist of investment grade securities, with a minimum quality rating for any issue of triple-B minus rating by at least one NRSRO. In the event that a credit rating is downgraded below this minimum, the investment manager shall immediately notify OPERS staff and provide an evaluation and recommended course of action.

The *Core Plus* manager will invest in a broadly diversified portfolio with characteristics similar to the Constrained Core manager and will add a “plus” of limited exposure to high yield bonds. The total portfolio minimum quality should be single-A as rated by an NRSRO. No more than 20% of the portfolio shall consist of non-investment grade issues. The minimum quality rating for any issue is single-B rating by at least one NRSRO, and no more than 5% of a portfolio shall be invested in issues rated below double-B rating by at least one NRSRO. In the event that a credit rating is downgraded below this minimum, the investment manager shall immediately notify OPERS staff and provide an evaluation and recommended course of action.

The *Interest Rate Anticipator* manager follows a style that seeks to correctly forecast the long term trend in interest rates and adjust the portfolio duration accordingly. The total portfolio minimum quality should be single-A as rated by an NRSRO, and the portfolio should consist of investment grade securities only.

The *Passive* fixed income style consists of a Treasury Inflation-Protection Securities (TIPS) index fund. TIPS are securities issued by the U.S. Government that are designed to protect the purchasing power of the investor.

At June 30, 2019, the domestic fixed income portfolio consisted of a constrained core fixed income portfolio, a core plus fixed income portfolio, a rate anticipator portfolio, and a passive U.S. TIPS Index fund. All components met the stated policy restrictions except the core fixed income portfolio, which held $3,255,655 in issues rated below triple-B minus, and the core plus fixed income portfolio, which held $22,660,283 in issues rated below single-B. The System's investment managers have advised retention of the securities after having assessed their risk/reward profiles. At June 30, 2018, the domestic fixed income portfolio consisted of a constrained core fixed income portfolio, a core plus fixed income portfolio, a rate anticipator portfolio, and a passive U.S. TIPS Index fund. All components met the stated policy restrictions except the core fixed income portfolio, which held $3,255,655 in issues rated below triple-B minus, and the core plus fixed income portfolio, which held $22,660,283 in issues rated below single-B. The System's investment managers have advised retention of the securities after having assessed their risk/reward profiles.

Investments issued by or explicitly guaranteed by the U.S. Government are not considered to have credit risk. At June 30, 2019, the System held 36.6% of fixed income investments that were not considered to have credit risk and 10.4% in a U.S. TIPS index fund made up of explicitly guaranteed U.S. Treasury Inflation-Protected Securities. At June 30, 2018, the System held 34.4% of fixed income investments that were not considered to have credit risk and 10.2% in a U.S. TIPS index fund made up of explicitly guaranteed U.S. Treasury Inflation-Protected Securities. Implicitly guaranteed investments primarily refer to bonds issued by a government sponsored entity (GSE) which is a government chartered corporation. This government charter implies that the government is unlikely to allow a GSE to default on its bond payments.

The System's exposure to credit risk at June 30, 2019 is presented below, in thousands, by investment category as rated by an NRSRO.

	Triple-A	Double-A	Single-A	Triple-B	Double-B	Single-B	Triple-C	Double-C	Not Rated or Rating Not Available	Total
Government agencies	$ -	$ -	$ -	$ 4,937	$ -	$ -	$ -	$ -	$ -	$ 4,937
Foreign bonds	-	-	547	13,999	-	-	-	-	-	14,546
Municipal bonds	-	6,321	-	2,929	-	-	-	-	-	9,250
Corporate bonds	4,864	29,054	232,544	445,608	10,038	5,052	690	-	18,397	746,247
Asset-backed securities	83,752	19,692	17,074	94		4,765	3,640	79		129,096
Commercial mortgage-backed securities	54,113	426	-	1,467	475	-	-	-	1,104	57,585
Non government backed collateralized mortgage obligations	16,004	12,037	265	3,783	7,237	3,484	5,029	-	-	47,839
Total fixed income securities exposed to credit risk	$ 158,733	$ 67,530	$ 250,430	$ 472,817	$17,750	$13,301	$ 9,359	$ 79	$ 19,501	$1,009,500
Percent of total fixed income portfolio	5.1%	2.2%	8.1%	15.2%	0.6%	0.4%	0.3%	0.0%	0.6%	32.5%

The System's exposure to credit risk at June 30, 2018 is presented below, in thousands, by investment category as rated by an NRSRO.

	Triple-A	Double-A	Single-A	Triple-B	Double-B	Single-B	Triple-C	Not Rated or Rating Not Available	Total
Government agencies	$ -	$ 511	$ -	$ 681	$ -	$ -	$ -	$ -	$ 1,192
Foreign bonds	-	761	-	17,778	-	-	-	-	18,539
Municipal bonds	3,375	8,343	1,942	2,843	-	-	-	-	16,503
Corporate bonds	19,262	28,052	314,189	343,791	44,946	3,938	-	61,020	815,198
Asset-backed securities	107,549	10,024	4,976	10,635	4,195	346	101	-	137,826
Commercial mortgage-backed securities	40,519	2,065	-	1,456	-	-	-	5,122	49,162
Non government backed collateralized mortgage obligations	9,681	2,842	749	7,207	149	-	34	732	21,394
Total fixed income securities exposed to credit risk	$ 180,386	$ 52,598	$ 321,856	$ 384,391	$49,290	$ 4,284	$ 135	$ 66,874	$1,059,814
Percent of total fixed income portfolio	6.0%	1.7%	10.7%	12.7%	1.6%	0.1%	0.0%	2.2%	35.0%

The exposure to credit risk of the underlying investments of the System's cash equivalents at June 30 is as follows:

Credit Rating	2019	2018
Double-A	100.0	100.0
	100.0 %	100.0 %

(c) Concentration of Credit Risk

Investments can be exposed to concentration of credit risk if significant amounts are invested in any one issuer. The System's investment policy states that portfolios managed on behalf of the System should not hold more than 5% of the outstanding securities of any single issuer. As of June 30, 2019 and 2018, the System did not have 5% or more of its total investments in any single issuer.

(d) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment or a deposit. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates based upon the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. Effective duration estimates the sensitivity of a bond's price to interest rate changes and makes assumpti1ons regarding the most likely timing and amounts of variable cash flows arising from investments, such as callable bonds, collateralized mortgage obligations, and other mortgage-backed securities.
At June 30, the System's exposure to interest rate risk as measured by effective duration is listed below by investment category.

	2019		2018	
	Fair Value	**Effective duration in years**	**Fair Value**	**Effective duration in years**
U.S. Treasury notes/bonds	$ 1,109,226,116	12.4	$ 994,996,296	12.2
U.S. TIPS index fund	324,711,724	7.5	309,268,778	7.7
Government agencies	11,445,632	8.2	6,652,326	9.0
Government mortgage-backed securities	659,025,220	4.1	651,534,262	5.2
Foreign bonds	14,546,433	9.6	18,539,023	9.9
Municipal bonds	9,250,189	4.4	16,502,780	5.1
Corporate bonds	746,247,542	6.1	815,197,984	5.2
Asset-backed securities	129,094,906	1.2	137,825,864	1.0
Commercial mortgage-backed securities	57,584,912	4.8	49,162,460	3.8
Non government backed collateralized mortgage obligations	47,838,648	1.3	21,394,430	1.4
Total fixed income	$ 3,108,971,322		$ 3,021,074,203	
Porfolio duration		7.8		7.6

The System does not have a formal investment policy on interest rate risk. Interest rate risk is controlled through diversification of portfolio management styles.

Some investments' sensitivity to changing interest rates may derive from prepayment options embedded in an investment. Asset-backed securities, mortgage-backed securities, and collateralized mortgage obligations are pass-through securities that represent pooled debt obligations repackaged as securities that pass income and principal from debtors through the intermediary to investors.

Asset-backed securities are bonds or notes backed by loan paper or accounts receivable originated by banks, credit card companies, or other providers of credit and often enhanced by a bank letter of credit or by insurance coverage proved by an institution other than the issuer. At June 30, 2019 and 2018, the System held $129,094,906 and $137,825,864, respectively, in asset-backed securities.

Mortgage-backed securities are securities backed by mortgages issued by public and private institutions. At June 30, 2019 and 2018, the System held $659,025,220 and $651,534,262, respectively, in government mortgage-backed securities issued by the Federal Home Loan Mortgage Corporation (FHLMC), Government National Mortgage Association (GNMA), and Federal National Mortgage Association (FNMA) as well as $57,584,912 and $49,162,460, respectively, in commercial mortgage-backed securities.

Collateralized mortgage obligations (CMOs) are mortgage-backed bonds that allocate mortgage cash flows (interest and principal) into different maturity classes, called tranches. This is accomplished by dedicating mortgage cash flows to specific tranches and paying each tranche off in turn by prespecified rules. CMOs provide investors with increased security about the life of their investment compared to purchasing a pass-through mortgage-backed security. If mortgage rates drop (rise) sharply, prepayment rates will increase (decrease), and CMO tranches may be repaid before (after) the expected maturity. At June 30, 2019 and 2018, the System held $47,838,648 and $21,394,430, respectively, in non-government backed CMOs.

The exposure to interest rate risk of the underlying investments of the System's cash equivalents at June 30 is as follows:

Maturities (in days)	2019	2018
0 - 14	35.5 %	29.1 %
15 - 30	4.3	12.5
31 - 60	16.8	15.2
61 - 90	22.8	17.0
91 - 180	12.3	11.9
181 - 364	7.0	11.1
365 - 730	1.3	3.2
	100.0 %	100.0 %

(e) 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 OPERS Statement of Investment Policy addresses foreign currency risk by stating that the primary sources of value-added for international equity investment managers will be issue and country selection, with currency management focused on limiting losses due to fluctuations in currency values.

The System's exposure to foreign currency risk by asset class at June 30, 2019 is as follows:

Currency	Equities	Short-term Investments	Cash	Total	Percent
Australian dollar	$ 22,388,937	$ -	$ -	$ 22,388,937	0.8 %
Brazilian real	16,094,349	-	-	16,094,349	0.6
British pound sterling	158,374,298	-	81,937	158,456,235	5.8
Canadian dollar	10,467,463	-	30,043	10,497,506	0.4
Danish krone	14,483,546	-	-	14,483,546	0.5
Euro	199,250,990	(110,004)	-	199,140,986	7.2
Hong Kong dollar	83,769,297	-	177,594	83,946,891	3.1
Indonesian rupiah	2,702,475	-	-	2,702,475	0.1
Japanese yen	167,010,610	-	595,533	167,606,143	6.1
Malaysian ringgit	8,444,624	-	-	8,444,624	0.3
Mexican peso	6,790,404	-	89,636	6,880,040	0.3
Polish zloty	-	-	444	444	0.0
Qatari rial	680,629			680,629	0.0
Singapore dollar	32,773,781	-	-	32,773,781	1.2
South African rand	12,392,187	-	-	12,392,187	0.5
South Korean won	25,303,406	-	-	25,303,406	0.9
Swedish krona	31,035,793	108,560	-	31,144,353	1.1
Swiss franc	41,904,906	-	-	41,904,906	1.5
Thai baht	2,315,954	(80,097)	-	2,235,857	0.1
United Arab Emirates dirham	1,912,901	-	-	1,912,901	0.1
International portfolio exposed to foreign currency risk	838,096,550	(81,541)	975,187	838,990,196	30.5
International portfolio in U.S. dollars	1,901,610,902	81,055	8,432,040	1,910,123,997	69.5
Total international portfolio	$ 2,739,707,452	$ (486)	$ 9,407,227	$ 2,749,114,193	100.0 %

The System's exposure to foreign currency risk by asset class at June 30, 2018 is as follows:

Currency	Equities	Short-term Investments	Cash	Total	Percent
Australian dollar	$ 22,474,297	$ -	$ -	$ 22,474,297	0.8 %
Brazilian real	15,881,829	77,330	-	15,959,159	0.6
British pound sterling	163,973,850	-	128,639	164,102,489	6.0
Canadian dollar	10,068,088	-	46,915	10,115,003	0.4
Danish krone	19,443,383	-	-	19,443,383	0.7
Euro	196,403,902	708,076	8,031	197,120,009	7.2
Hong Kong dollar	59,434,917	94,927	205,714	59,735,558	2.2
Indonesian rupiah	1,791,420	-	-	1,791,420	0.1
Japanese yen	136,974,338	66,273	643,334	137,683,945	5.0
Malaysian ringgit	9,441,752	-	107,128	9,548,880	0.3
Mexican peso	5,260,043	-	-	5,260,043	0.2
Philippine peso	2,422,953	-	-	2,422,953	0.1
Polish zloty	-	-	442	442	0.0
Qatari rial	2,435,879	-	-	2,435,879	0.1
Singapore dollar	32,443,791	-	171,383	32,615,174	1.2
South African rand	19,295,177	-	-	19,295,177	0.7
South Korean won	27,858,524	(4,811)	-	27,853,713	1.0
Swedish krona	35,674,224	-	-	35,674,224	1.3
Swiss franc	39,743,951	-	-	39,743,951	1.5
Thai baht	3,668,616	-	3,503	3,672,119	0.1
Turkish lira	3,387,052	-	-	3,387,052	0.1
United Arab Emirates dirham	2,642,343	-	-	2,642,343	0.1
International portfolio exposed to foreign currency risk	810,720,329	941,795	1,315,089	812,977,213	29.7
International portfolio in U.S. dollars	1,890,460,930	22,378,015	10,091,296	1,922,930,241	70.3
Total international portfolio	$ 2,701,181,259	$ 23,319,810	$ 11,406,385	$ 2,735,907,454	100.0 %

The System's actively-managed international equity securities are recorded at fair value, which includes foreign currency gains and losses attributable to fluctuations in the exchange rate between the foreign denominated currency of the investment and the U.S. dollar. This translation gain or loss is calculated based on month-end exchange rates. Cumulative unrealized translation losses at June 30, 2019 and 2018 were approximately $46.0 and $50.0 million, respectively.

(f) Rate of Return

For the year ended June 30, 2019 and 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 5.91% and 8.38% respectively, and the annual money-weighted rate of return on HISP plan investments, net of HISP plan investment expenses, was 5.52% and 8.08% respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

(g) Fair Value Measurement

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to quoted prices in active markets for identical assets (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The inputs to the three levels of the fair value hierarchy are described as follows:

Level 1: Quoted prices in active markets for identical assets or liabilities

Level 2: Significant other observable inputs, including quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets in markets that are not active and other market corroborated inputs

Level 3: Significant unobservable inputs

Investments in equity securities classified in level 1 are valued directly from a predetermined primary external pricing vendor using published prices. Investments in debt securities classified as level 2 are obtained from using an alternative pricing source due to lack of information by the primary vendor. The investment in real estate is classified as level 3 due to lack of observable pricing inputs and is valued using annual appraisals.

Assets measured at fair value and net asset value at June 30, 2019 are as follows:

		Fair Value Measurements Using		
Investments by Fair Value Level	**6/30/2019**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Short-term investment fund	$ 121,272,153	$ -	$ 121,272,153	$ -
Debt Securities				
U.S. Treasury notes/bonds	$ 1,109,226,116	$ -	$ 1,109,226,116	$ -
Government agencies	11,445,632	-	11,445,632	-
Government mortgage-backed securities	659,025,220	-	659,025,220	-
Foreign bonds	14,546,433	-	14,546,433	-
Municipal bonds	9,250,189	-	9,250,189	-
Corporate bonds	746,247,542	-	746,247,542	-
Asset-backed securities	129,094,906	-	129,094,906	-
Commercial mortgage-backed securities	57,584,912	-	57,584,912	-
Non government backed collateralized m	47,838,648	-	47,838,648	-
Total Debt Securities	2,784,259,598	-	2,784,259,598	-
Equity Securities				
International equities	957,058,577	957,058,577	-	-
U.S. common and preferred stock	2,306,945,182	2,306,945,182	-	-
Total Equity Securities	3,264,003,759	3,264,003,759	-	-
Real estate				
Real estate	11,750,000	-	-	11,750,000
Total Investments by Fair Value Level	$ 6,060,013,357	$ 3,264,003,759	$ 2,784,259,598	$ 11,750,000

Investments Measured at the Net Asset Value (NAV)	
U.S. TIPS index fund	$ 324,711,724
International equity index funds	1,782,648,389
U.S. equity index fund	1,675,716,050
Total Investments Measured at NAV	3,783,076,163
Securities lending collateral	480,168,634
Total Investments	$ 10,323,258,154

Assets measured at fair value and net asset value at June 30, 2018 are as follows:

		Fair Value Measurements Using		
Investments by Fair Value Level	**6/30/2018**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Short-term investment fund	$ 208,058,926	$ -	$ 208,058,926	$ -
Debt Securities				
U.S. Treasury notes/bonds	$ 994,996,296	$ -	$ 994,996,296	$ -
Government agencies	6,652,326	-	6,652,326	-
Government mortgage-backed	651,534,262	-	651,534,262	-
Foreign bonds	18,539,023	-	18,539,023	-
Municipal bonds	16,502,780	-	16,502,780	-
Corporate bonds	815,197,984	-	815,197,984	-
Asset-backed securities	137,825,864	-	137,825,864	-
Commercial mortgage-backed	49,162,460	-	49,162,460	-
Non government backed collateralized mortgage obligations	21,394,430	-	21,394,430	-
Total Debt Securities	2,711,805,425	-	2,711,805,425	-
Equity Securities				
International equities	952,492,471	952,492,471	-	-
U.S. common and preferred stock	2,360,696,629	2,360,696,629	-	-
Total Equity Securities	3,313,189,100	3,313,189,100	-	-
Real estate				
Real estate	12,600,000	-	-	12,600,000
Total Investments by Fair Value Level	$ 6,037,594,525	$ 3,313,189,100	$ 2,711,805,425	$ 12,600,000
Investments Measured at the Net Asset Value (NAV)				
U.S. TIPS index fund	$ 309,268,778			
International equity index funds	1,748,689,851			
U.S. equity index fund	1,652,412,024			
Total Investments Measured at NAV	3,710,370,653			
Securities lending collateral	476,470,399			
Total Investments	$ 10,224,435,577			

There have been no significant changes in valuation techniques during the fiscal years ended June 30, 2019 and 2018.

Certain investments that do not have a readily determinable fair value are measured at NAV (or its equivalent), such as member units or an ownership interest. NAV per share is calculated as of the System's year-end and provided by the investment manager. The valuation method for investments measured at the NAV per share, or equivalent, is presented in the table below.

Investments Measured at the Net Asset Value	**6/30/2019**	**6/30/2018**	**Redemption Frequency**	**Redemption Notice Period**
U.S. TIPS index fund (1)	$ 324,711,724	$ 309,268,778	Daily	2 days
International equity index funds (2)	1,782,648,389	1,748,689,851	Daily	2 days
U.S. equity index fund (3)	1,675,716,050	1,652,412,024	Daily	1 day
	$ 3,783,076,163	$ 3,710,370,653		

(1) **U.S. TIPS index fund** – The US Treasury Inflation Protected Securities fund is an index fund that establishes an objective of delivering investment performance approximating the rate of return for outstanding US Treasury inflation protected securities with a maturity of one year or greater. The investment is valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.

(2) **International Equity Index Funds** – The International equity funds consist of index funds that are designed to track various segments of non-US equity markets. Those index funds include the ACWI ex-US Index Fund and the ACWI ex-US Growth Index Fund. The index funds are invested and reinvested in portfolios of non-US developed and emerging markets equity securities, with the objective of approximating the capitalization-weighted return of each respective market segment for publicly traded equity securities. The investment is valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.

(3) **U.S. Equity Index Fund** – The US equity fund consist of an index fund that is designed to track various segments of US equity markets. That index fund is the Russell 1000 Index Fund. The index fund is invested and reinvested in portfolios of US equity securities, with the objective of approximating the capitalization-weighted return of each respective market segment for publicly traded equity securities. The investment is valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.

(6) Net Pension Liability, Net HISP Asset and Actuarial Information

(a) Net Pension Liability and Net HISP Asset of Participating Agencies

The components of the net pension liability of the employers at June 30 were as follows:

	2019	2018
Total pension liability	$ 9,726,326,176	$ 9,555,990,069
Plan fiduciary net position	$ 9,593,138,099	$ 9,360,947,061
Employers' net pension liability	$ 133,188,077	$ 195,043,008
Plan fiduciary net position as a percentage of the total pension liability	98.63%	97.96%

The components of the net HISP liability of the employers at June 30 were as follows:

	2019	2018
Total HISP liability	$ 321,048,037	$ 328,143,546
HISP plan fiduciary net position	$ 359,922,778	$ 341,084,506
Employers' net HISP (asset) liability	$ (38,874,741)	$ (12,940,960)
Plan fiduciary net position as a percentage of the total HISP liability	112.11%	103.94%

(b) Actuarial Methods and Assumptions

The total pension liability and total HISP Asset, both as of June 30, 2019 and 2018, were determined based on actuarial valuations prepared as of July 1, 2019, using the following actuarial assumptions:

- Investment return – 7.00% compounded annually net of investment expense and including inflation
- Salary increases – 3.5% to 9.5% per year including inflation
- Mortality rates – active participants and nondisabled pensioners – RP-2014 Mortality Table projected to 2025 by Scale MP-2016 (disabled pensioners set forward 12 years)

- No annual post-retirement benefit increases
- Assumed inflation rate – 2.75%
- Payroll growth – 3.5%
- Actuarial cost method – Entry age
- Select period for the termination of employment assumptions – 10 years

The actuarial assumptions used in the July 1, 2019, valuation are based on the results of the most recent actuarial experience study, which covered the three-year period ending June 30, 2016. The experience study report is dated April 13, 2017.

The long-term expected rate of return on pension plan investments and HISP plan investments was determined using a log-normal distribution analysis in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan 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. The HISP represents a subsidy that is capped at $105 per month per retiree.

The target asset allocation and best estimates of arithmetic real rates of return for each major class, as used in the June 30, 2016 experience study, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Large Cap Equity	38.0%	3.8%
U.S. Small Cap Equity	6.0%	4.9%
Non-US Equity	24.0%	9.2%
U.S. Fixed	32.0%	1.4%
Total	100.0%	

(c) Discount rate

The discount rate used to measure the total pension liability and the total HISP liability was 7.00%, net of investment expenses, for 2019 and 2018. The projection of cash flows used to determine the discount rate assumed that contributions from System members and the employers will be made at the current contribution rate as set out in state statute. Based on those assumptions, the pension plan's fiduciary net position and the HISP's fiduciary net position were projected through 2114 to be available to make all projected future benefit payments of current System members. Therefore, the long-term expected rate of return on pension plan and HISP plan investments was applied to all periods of projected benefit payments to determine the total pension liability and total HISP liability. The discount rate determined does not use a municipal bond rate.

Sensitivity of the net pension liability and net HISP liability to changes in the discount rate

The following presents the net pension liability of the employer calculated using the discount rate of 7.00% for 2019 and 2018, as well as what the System's net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	June 30, 2019			June 30, 2018		
	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net pension liability (asset)	$1,199,343,656	$ 128,303,473	$ (779,733,963)	$1,251,438,814	$ 195,043,008	$ (700,194,263)

The following presents the net HISP liability of the employer calculated using the discount rate of 7.00% for 2019 and 2018, as well as what the System's net HISP liability (asset) would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	June 30, 2019			June 30, 2018		
	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net HISP liability (asset)	$ (6,308,220)	$ (39,042,473)	$ (67,199,154)	$ 20,603,534	$ (12,940,960)	$ (41,793,057)

Due to the structure of the HISP, healthcare cost trend rate sensitivity analysis is not meaningful.

(7) Federal Income Tax Status

Pursuant to a determination by the IRS, the System is qualified under the Internal Revenue Code of 1986, as amended and, therefore, is exempt from federal income taxes. The latest determination letter is dated October 28, 2014 and was a favorable determination for the Oklahoma Public Employees Retirement Plan. The System has been amended since receiving the determination letter; however, the System administrator believes that the System is designed and is currently being operated in substantial compliance with the applicable requirements of the Internal Revenue Code and will retain its status as a qualified plan.

(8) New Accounting Pronouncements

The following GASB statements were implemented during the fiscal year:

GASB Statement No. 83, *Asset Retirement Obligations*, requires a liability to be recognized if a government is subjected to a law, regulation, court judgment or similar requiring a liability, or funding of a liability. The provisions of the Standard did not apply to the System.

GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements* redefined the word 'debt' for disclosure purposes and requires recognition of direct borrowings and direct placements. The provisions of the Standard did not have a material effect on the System's current disclosure.

Fiscal Year Ended June 30, 2020 (and beyond):

GASB Statement No. 84, *Fiduciary Activities*, clarifies fiduciary relationships and reporting. The System is analyzing the effect of this Statement.

GASB Statement No. 87*, Leases*, changes reporting of nearly all leasing arrangements for lessors and lessees. The System is analyzing the effect of this Statement.

GASB Statement No. 89, *Accounting for Interest Cost before the End of a Construction Period*, removes the GAAP related to capitalization of interest costs. The Standard will likely not apply as the System has not issued in the past, and currently does not issue debt for construction of capital assets.

GASB Statement No. 90, *Majority Equity Interests*, clarifies reporting of when a government has a majority equity position in another entity, which may result in the equity method of reporting or a component unit relationship. This Statement will likely not apply as the System is precluded by State statute from holding a majority equity position in another entity.

GASB Statement No. 91, *Conduit Debt Obligations*, clarifies the reporting of conduit debt. The Standard will not apply to the System as the System does not issue such obligations, nor is it a party to such obligations.

(9) Restatement and Reissuance

Subsequent to the issuance of the System's financial statements dated October 11, 2019, management became aware that certain investment fees in the amount of $5,052,337 had not been properly accrued as of June 30, 2019. As such, investment expenses and the related accrued expenses were adjusted to include such fees. Additionally, certain note disclosures in notes 5 and 6, required supplementary information schedules 1, 3, 4, and 6, and other supplementary information schedule 7 has been updated to reflect the updated amounts.

Required Supplementary Information

(Unaudited)

June 30, 2019

Schedule 1

Schedule of Changes in the Net Pension Liability ($ in Thousands)

Year Ended June 30,	2019	2018	2017	2016	2015	2014
Total Pension Liability						
Service cost	$ 162,170	$ 170,490	$ 177,082	$ 178,523	$ 175,809	$ 184,835
Interest	647,009	640,881	639,266	653,306	635,975	621,990
Benefit changes	-	8,929	-	-	-	-
Difference between expected and actual experience	(2,065)	(110,269)	(117,283)	(52,745)	(11,228)	(89,172)
Changes of assumptions	-	-	238,225	233,874	-	15,413
Benefit payments	(621,409)	(592,726)	(573,962)	(565,412)	(542,488)	(520,641)
Refunds of contributions	(15,369)	(15,957)	(15,950)	(15,862)	(15,611)	(14,878)
Net change in total pension liability	170,336	101,348	347,378	431,684	242,457	197,547
Total pension liability - beginning	9,555,990	9,454,642	9,427,810	8,996,126	8,753,669	8,556,122
Adoption of GASB 74	-	-	(320,546)	-	-	-
Total pension liability - ending (a)	$9,726,326	$ 9,555,990	$ 9,454,642	$ 9,427,810	$ 8,996,126	$ 8,753,669
Plan Fiduciary Net Position						
Contributions - employer	$ 263,730	$ 258,907	$ 269,511	$ 296,249	$ 292,185	$ 280,047
Contributions - member	66,566	66,930	70,276	73,801	73,145	70,524
Net investment income	544,237	734,976	1,013,868	15,756	264,289	1,317,980
Benefit payments	(621,409)	(592,726)	(573,962)	(565,412)	(542,488)	(520,641)
Administrative expense	(5,564)	(5,162)	(5,214)	(5,395)	(5,183)	(4,709)
Refunds of contributions	(15,369)	(15,957)	(15,950)	(15,862)	(15,611)	(14,878)
Net change in plan fiduciary net position	232,191	446,968	758,529	(200,863)	66,337	1,128,323
Plan fiduciary net position - beginning	9,360,947	8,913,979	8,435,579	8,636,442	8,570,105	7,441,782
Adoption of GASB 74	-	-	(280,129)	-	-	-
Plan fiduciary net position - ending (b)	9,593,138	9,360,947	8,913,979	8,435,579	8,636,442	8,570,105
Net pension liability - ending (a) - (b)	$ 133,188	$ 195,043	$ 540,663	$ 992,231	$ 359,684	$ 183,564

Schedule of the Net Pension Liability ($ in Thousands)

Year Ended June 30,	2019	2018	2017	2016	2015	2014
Total pension liability	$9,726,326	$ 9,555,990	$ 9,454,642	$ 9,427,810	$ 8,996,126	$ 8,753,669
Plan fiduciary net position	9,593,138	9,360,947	8,913,979	8,435,579	8,636,442	8,570,105
Net pension liability	$ 133,188	$ 195,043	$ 540,663	$ 992,231	$ 359,684	$ 183,564
Ratio of plan fiduciary net position to total pension liability	98.63%	97.96%	94.28%	89.48%	96.00%	97.90%
Covered payroll	$1,601,075	$ 1,688,544	$ 1,790,810	$ 1,808,973	$ 1,744,042	$ 1,695,348
Net pension liability as a % of covered payroll	8.32%	11.55%	30.19%	54.85%	20.62%	10.83%

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

Required Supplementary Information

Schedule of Pension Employer Contributions ($ in Thousands)
(Unaudited)
June 30, 2019
Schedule 2

Year Ended June 30,	2019	2018	2017	2016	2015	2014
Actuarially determined employer contribution	$ 129,707	$ 168,494	$ 176,016	$ 164,600	$ 200,784	$ 258,879
Actual employer contributions	263,730	258,907	269,511	296,249	292,185	280,047
Annul contribution deficiency (excess)	$ (134,023)	$ (90,413)	$ (93,495)	$ (131,649)	$ (91,401)	$ (21,168)
Covered payroll*	$ 1,601,075	$ 1,688,544	$1,790,810	$1,808,973	$1,744,042	$ 1,695,348
Actual contributions as a percentage of covered payroll*	16.47%	15.33%	15.05%	16.38%	16.75%	16.52%

* Covered payroll beginning in 2017 is for the defined benefit plan members only although employer contributions toward the net pension liability are being received on behalf of defined contribution plan members. Note: 2017 was the first year to exclude the health insurance subsidy.

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

Notes to Schedule

Valuation date:

Actuarially determined contributions are calculated as of the beginning of the fiscal year in which contributions are reported

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	9 years
Asset valuation method	5-year moving average
Inflation	2.75% for 2019, 2018 and 2017, and 3.00% for 2016
Salary increase	3.50 to 9.50 percent, including inflation
Investment rate of return	7.00% for 2019, 7.00% for 2018 and 2017, and 7.25% for 2016, compounded annually, net of investment expense and including inflation
Retirement age	Age 65 for all members hired on or after November 1, 2011, age 62 for members hired prior to November 1, 2011
Mortality	For 2019 and 2018, active participants and nondisabled pensioners – RP-2014 Mortality Table projected to 2025 by Scale MP-2016 (disabled pensioners set forward 12 years). For 2016, Active participants and nondisabled pensioners – RP-2000 Mortality Table projected to 2010 by Scale AA (disabled pensioners set forward 15 years)

Other information:

The plan has been amended by House Bill 2630 in 2014 which states that effective November 1, 2015, OPERS shall create a defined contribution plan for most people first employed by a participating employer. Exemptions from the new defined contribution plan include hazardous duty members and district attorneys, assistant district attorneys and employees of the district attorney's office. Each employer shall send to OPERS the difference between the required employer contribution to OPERS and the amount required to match the participating employee's contribution in the defined contribution plan.

Senate Bill 2120, also enacted in 2014, amends House Bill 2630 to further exempt from the new defined contribution plan county elected officials and employees of a county, county hospital, city or town, conservation district, circuit engineering district, and any public or private trust in which a county, city or town participates. Senate Bill 2120 also states that employees who participate in the defined contribution system are excluded from the $105 health subsidy.

New employees specifically exempted from the defined contribution plan will participate in the existing defined benefit plan.

Required Supplementary Information

Schedule of Money-Weighted Rate of Return on Pension Plan Investments

(Unaudited)

June 30, 2019

Schedule 3

Annual money-weighted rate of return, net of investment expense	
Year Ended June 30, 2019	5.91%
Year Ended June 30, 2018	8.38%
Year Ended June 30, 2017	12.64%
Year Ended June 30, 2016	0.18%
Year Ended June 30, 2015	3.12%
Year Ended June 30, 2014	17.96%

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

Required Supplementary Information

(Unaudited)

June 30, 2019

Schedule 4

Schedule of Changes in the Net HISP Liability (Asset) ($ in Thousands)

Year Ended June 30,	2019	2018	2017
Total HISP Liability			
Service cost	$ 7,909	$ 8,367	$ 8,550
Interest	22,332	22,240	22,563
Difference between expected and actual experience	(18,780)	(10,599)	(16,757)
Changes of assumptions	-	-	11,073
Benefit payments	(18,556)	(18,840)	(18,999)
Net change in total HISP liability	(7,095)	1,168	6,430
Total HISP liability - beginning	328,143	326,975	320,545
Total HISP liability - ending (a)	$ 321,048	$ 328,143	$ 326,975
Plan Fiduciary Net Position			
Contributions - employer	$ 18,744	$ 19,080	$ 18,828
Net investment income	18,841	25,502	35,747
Benefit payments	(18,556)	(18,840)	(18,999)
Administrative expense	(191)	(179)	(184)
Net change in plan fiduciary net position	18,838	25,563	35,392
Plan fiduciary net position - beginning	341,084	315,521	280,129
Plan fiduciary net position - ending (b)	359,922	341,084	315,521
Net HISP liability (asset) - ending (a) - (b)	$ (38,874)	$ (12,941)	$ 11,454

Schedule of the Net HISP Liability (Asset) ($ in Thousands)

Year Ended June 30,	2019	2018	2017
Total HISP liability	$ 321,048	$ 328,143	$ 326,975
Plan fiduciary net position	359,922	341,084	315,521
Net HISP liability	$ (38,874)	$ (12,941)	$ 11,454
Ratio of plan fiduciary net position to total HISP liability	112.11%	103.94%	96.50%
Covered payroll*	N/A	N/A	N/A
Net HISP liability as a percentage of covered payroll	N/A	N/A	N/A

*Covered Payroll is not meaningful to formulate a ratio of net HISP liability as a percentage of covered payroll. Contributions are only received from employers.

Discount Rate as of June 30, 2019 and 2018 was 7.00%

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

Required Supplementary Information

Schedule of HISP Employer Contributions ($ in Thousands)
(Unaudited)
June 30, 2019
Schedule 5

Year Ended June 30,	2019	2018	2017
Actuarially determined employer contribution	$ 4,281	$ 5,786	$ 6,087
Actual employer contributions	18,744	19,080	18,828
Annul contribution deficiency (excess)	$ (14,463)	$ (13,294)	$ (12,741)
Covered payroll*	N/A	N/A	N/A
Actual contributions as a % of covered payroll*	N/A	N/A	N/A

*Covered Payroll is not meaningful to formulate a ratio of net HISP liability (asset) as a percentage of covered payroll. Contributions are only received from employers.

Notes to Schedule

Valuation date:
Actuarially determined contributions are calculated as of the beginning of the fiscal year in which contributions are reported

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	9 years
Asset valuation method	5-year moving average
Inflation	2.75%
Salary increase	3.50 to 9.50 percent, including inflation
Investment rate of return	7.00%, compounded annually, net of investment expense and including inflation
Retirement age	Age 65 for all members hired on or after November 1, 2011, age 62 for members hired prior to November 1, 2011
Mortality	Active participants and nondisabled pensioners – RP-2014 Mortality Table projected to 2025 by Scale MP-2016 (disabled pensioners set forward 12 years)

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

Required Supplementary Information

Schedule of Money-Weighted Rate of Return on HISP Investments

(Unaudited)

June 30, 2019

Schedule 6

Annual money-weighted rate of return, net of investment expense	
Year Ended June 30, 2019	5.52%
Year Ended June 30, 2018	8.08%
Year Ended June 30, 2017	12.76%

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

Supplementary Information

Schedule of Investment Expenses

Year Ended June 30, 2019 and 2018

Schedule 7

	2019	2018
Investment management fees		
Fixed Income Managers:		
BlackRock Financial Management, Inc.	$ 1,158,692	$ 1,136,263
Hoisington Investment Management	450,709	448,370
Metropolitan West Asset Management, LLC	883,004	909,298
BlackRock Institutional Trust Company, N.A. - TIPS	26,461	32,210
U.S. Equity Managers:		
Barrow, Hanley, Mewhinney & Strauss, Inc.	1,083,739	1,123,376
BlackRock Institutional Trust Company, N.A.	122,131	121,726
DePrince Race & Zollo, Inc.	3,041,501	770,519
Mellon Capital Management	125,000	125,000
State Street Global Advisors	167,120	164,978
UBS Global Asset Management	2,654,717	321,620
Westfield Capital Management	315,198	307,739
International Equity Managers:		
Baillie Gifford Overseas Limited	661,766	668,439
BlackRock Institutional Trust Company, N.A.	455,099	787,118
Mondrian Investment Partners, Ltd	2,131,397	2,209,644
Total investment management fees	13,276,534	9,126,300
Investment consultant fees		
Verus Investment Advisory Group	244,686	246,470
Investment custodial fees		
Northern Trust Company	38,650	38,655
Other investment related expenses	223,316	212,670
Total investment expenses	$ 13,783,186	$ 9,624,095

Supplementary Information

Schedule of Administrative Expenses

Year Ended June 30, 2019 and 2018

Schedule 8

	2019	2018
Staff salaries	$ 3,264,469	$ 3,192,021
Social Security	240,437	236,160
Retirement	564,939	536,864
Insurance	632,362	640,286
Temporary employees	30,873	26,482
Total personnel services	4,733,080	4,631,813
Actuarial	106,004	89,695
Audit	298,864	247,467
IT Consulting	260,219	-
Legal	18,328	39,939
Total professional services	683,415	377,101
Printing	72,858	50,958
Telephone	22,649	30,063
Postage and mailing expenses	131,173	117,222
Travel	43,656	43,106
Information Technology	296,971	-
Total communication	567,307	241,349
Office space	299,350	228,540
Equipment leasing	24,842	37,927
Total rentals	324,192	266,467
Supplies	19,793	17,086
Maintenance	2,290	133,850
Depreciation	113,339	176,536
Other	190,174	248,921
Total miscellaneous	325,596	576,393
Total administrative expenses	6,633,590	6,093,123
Administrative expenses allocated		
Uniform Retirement System for Justices and Judges (URSJJ)	(176,045)	(161,247)
Oklahoma State Employees Deferred Compensation Plan (DCP)	(507,077)	(458,574)
Oklahoma State Employees Deferred Savings Incentive Plan (SIP)	(128,513)	(120,911)
Pathfinder 401(a) Defined Contribution Plan	(60,454)	(11,345)
Pathfinder 457 Defined Contribution Plan	(6,540)	(1,059)
Total administrative expenses allocated	(878,629)	(753,136)
Net administrative expenses	$ 5,754,961	$ 5,339,987

Note to Schedule of Administrative Expenses

Administrative overhead expenses, including personnel and other supporting services costs, which are paid for by the Plan, are allocated to three other retirement funds also administered by OPERS. The allocation is based on OPERS' estimate of the cost of service provided by the Plan to the other funds.

Supplementary Information

Schedule of Professional/Consultant Fees

Year Ended June 30, 2019 and 2018

Schedule 9

Professional/Consultant	Service		2019		2018
Cavanaugh Macdonald Consulting, Inc.	Actuarial	$	106,004	$	89,695
Eide Bailly LLP	External Auditor		71,500		69,900
Arledge & Associates	External Auditor		37,250		35,250
Finley & Cook, PLLC	Internal Auditor		190,114		142,317
Gartner Inc.	IT Consulting		145,069		-
ImageNet	IT Consulting		103,670		-
OMES - Communications	IT Consulting		11,480		-
Ice Miller LLP	Legal		18,328		39,939
Total professional/consultant fees		$	683,415	$	377,101

CPAs & BUSINESS ADVISORS

Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trustees
Oklahoma Public Employees Retirement System
Oklahoma City, Oklahoma

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Oklahoma Public Employees Retirement System (the System), which comprise the statements of fiduciary net position as of June 30, 2019, and the related statements of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated November 19, 2019, as updated by the reissuance of the report. Our report includes an emphasis of matter paragraph describing that the System is a component unit of the state of Oklahoma and these financials reflect only the assets, liabilities, revenues, and expenses of the System and not the state of Oklahoma as a whole. Our report includes an additional emphasis of matter paragraph regarding the reissuance of the financial statements

Internal Control over Financial Reporting
In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and responses as item 2019-001 that we consider to be a material weakness.

Compliance and Other Matters
As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

The System's Response to Findings
The System's response to the finding identified in our audit is described in the accompanying schedule of findings and responses. The System's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report
The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Eide Bailly LLP

Oklahoma City, Oklahoma
November 19, 2019

2019-001 Restatement and Reissuance
Material Weakness in Internal Control over Financial Reporting

Criteria: A properly designed system of internal control over financial reporting includes the preparation of an entity's financial statements by internal personnel of the entity, including all material adjustments. Management is responsible for establishing and maintaining internal control over financial reporting and procedures related to the fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles (GAAP).

Condition: The System's internal control system was not designed to capture all year-end accruals, as required by GAAP. Subsequent to the issuance of the fiscal year 2019 financial statements, management identified that certain amounts had not been properly accrued. The result is a restatement and reissuance of the fiscal year 2019 financial statements.

Cause: The System's internal control process is designed to record financial statements in accordance with GAAP. However, certain year-end procedures were not in place to appropriately capture year-end accruals related to investment expenses.

Effect: The System's financial statements were restated to accrue investment expenses and the related accrued expense liability for approximately $5 million which also resulted in the reissuance of the fiscal year 2019 financial statements.

Recommendation:
We recommend that management review the controls and processes in place to ensure the appropriate capture of the fiscal year liabilities to be reported in accordance with GAAP.

Views of Responsible Officials:
Management acknowledges the finding and has developed an appropriate process and control to ensure all investment expenses are recorded and reported in accordance with GAAP.