# 2016 Summary Report to Members

for the fiscal year ended June 30, 2016

Since 1946

# A 70-Year Tradition of Reliable Retirement



PUBLIC SCHOOL & EDUCATION EMPLOYEE RETIREMENT SYSTEMS OF MISSOURI

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# A tradition of dedicated service to our members.

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

# Since 1946

## Introduction

PSRS/PEERS has helped more than 122,000 members and their families achieve financial security during retirement. We are dedicated to helping our current and future members achieve the financially secure retirement they deserve after a full career of service to Missouri's public schools and students.

# A Snapshot of PSRS/PEERS Members

While the average age and years of service among our working members have remained fairly constant over the past five years, average annual salaries have increased somewhat, and total PSRS and PEERS membership continues to grow. As our membership grows, we remain dedicated to maintaining our financial strength and providing the highest level of service and retirement security to all of our members, now and in the future.

PSRS Active Member Profile								
	2016	2015	2014	2013	2012			
Average Age	42.0	42.0	42.2	42.1	42.2			
Average Years of Service	11.6	11.5	11.8	11.4	11.4			
Average Annual Salary	\$59,005	\$58,582	\$58,876	\$57,135	\$56,483			

PEERS Active Member Profile								
	2016	2015	2014	2013	2012			
Average Age	48.3	48.4	48.6	48.1	48.1			
Average Years of Service	8.6	8.6	8.9	8.5	8.4			
Average Annual Salary	\$32,887	\$32,220	\$31,646	\$30,196	\$29,571			

PSRS Total Membership							
	2016*	<b>2015</b> *	2014	2013	2012		
Active	78,129	78,318	75,168	78,076	77,529		
Inactive	16,376	16,260	14,451	11,649	11,523		
Retired	53,069	51,345	49,707	47,646	45,895		
Disabled	957	892	859	843	803		
Survivors	3,994	3,884	3,920	3,817	3,646		
Total Membership	152,525	150,699	144,105	142,031	139,396		

PEERS Total Membership							
	2016*	2015*	2014	2013	2012		
Active	47,851	46,864	45,589	48,709	48,605		
Inactive	31,577	30,999	16,215	14,439	14,552		
Retired	25,061	23,900	22,756	21,519	20,537		
Disabled	782	767	735	709	668		
Survivors	1,740	1,631	1,538	1,446	1,357		
Total Membership	107,011	104,161	86,833	86,822	85,719		

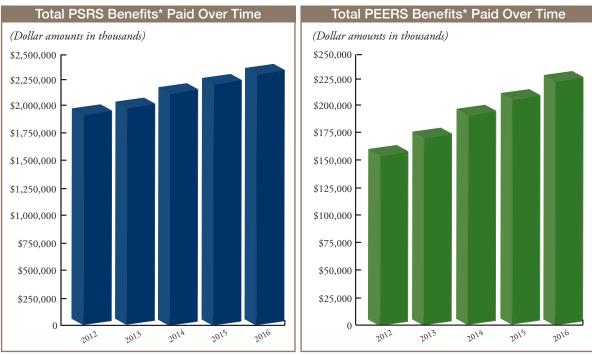
\*Inactive members includes vested and non-vested accounts, as well as terminated accounts.

# **Retirement Trends**

The total number of PSRS/PEERS retirees and amount of benefits paid each year continue to grow. In fiscal year 2016 (July 1, 2015 to June 30, 2016) we helped 4,506 individuals begin their retirement by providing them with PSRS/PEERS benefits.

PSRS Members Retiring By Year									
	2016	2015	2014	2013	2012				
Number of Retirements	2,603	2,570	2,888	2,642	2,926				
Average Age	59.1	59.3	58.8	58.9	58.7				
Average Years of Service	22.3	22.3	23.5	23.2	23.7				
Average Monthly Benefit	\$3,239	\$3,230	\$3,445	\$3,370	\$3,334				

PEERS Members Retiring By Year									
	2016	2015	2014	2013	2012				
Number of Retirements	1,903	1,884	1,919	1,656	1,714				
Average Age	62.9	63.1	63.0	63.0	63.0				
Average Years of Service	16.5	16.3	16.1	16.3	16.3				
Average Monthly Benefit	\$826	\$813	\$793	\$763	\$748				



\*Annual benefits paid to service retirees, disability retirees, and survivors. Includes PLSO Payments.

## About Our Retirees

We take great pride in the long-term strength and stability of the Systems. We believe our retired members, after a full career of service to our schools, students and communities, are deserving of the peace of mind that comes with knowing they will receive lifetime retirement benefits.

Most PSRS/PEERS benefit recipients are service retirees. Lifetime service retirement benefits are payable to members who have met age and service requirements. Disability benefits are provided for members who are unable to earn a livelihood due to permanent disability and who have met eligibility criteria. The Systems also provide death benefits to qualified beneficiaries of deceased members.

Years of Service at Retirement	Number of Retirees	Average Years of Service	Average Single Life Monthly Benefit	Average Age at Retirement
5 - 9.9	251	6.9	\$ 671	62.0
10 - 14.9	265	12.1	\$1,372	62.3
15 - 19.9	328	17.3	\$2,179	62.6
20 - 24.9	530	22.3	\$3,127	60.6
25 - 29.9	745	27.2	\$4,152	55.6
30 - 34.9	430	31.1	\$4,942	56.4
35 - 39.9	37	36.7	\$ 5,627	60.6
40+	17	42.7	\$6,686	66.6
Overall Average		22.3	\$ 3,239	59.1

#### PSRS 2015-2016 School Year Retirees

#### PEERS 2015-2016 School Year Retirees

Years of Service at Retirement	Number of Retirees	Average Years of Service	Average Single Life Monthly Benefit	Average Age at Retirement
5 - 9.9	520	7.2	\$ 238	63.6
10 - 14.9	410	12.4	\$ 493	63.6
15 - 19.9	328	17.3	\$ 785	63.6
20 - 24.9	289	22.2	\$ 1,160	61.8
25 - 29.9	235	27.1	\$ 1,630	60.9
30+	121	33.7	\$ 2,235	61.7
Overall Average		16.5	\$ 826	62.9

The average 2015-2016 single life monthly benefit for new PSRS retirees is \$3,239 and for PEERS retirees is \$826. How much will your benefit be? Use our online Benefit Estimator located under Web Member Services at **www.psrs-peers.org** to estimate your own monthly retirement benefit amount.

### Funding Status and Valuation Results

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

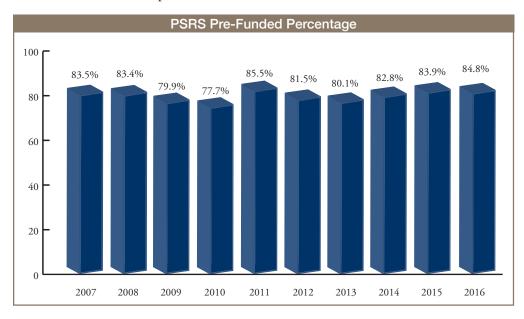
The Systems are required to perform an actuarial audit at least every 10 years. An actuarial audit involves engaging the services of an outside independent actuary (reviewing actuary) to scrutinize the work of the Systems retained independent actuary. The actuarial audit results indicated the valuation provided a fair and reasonable assessment of the financial condition of the Systems.

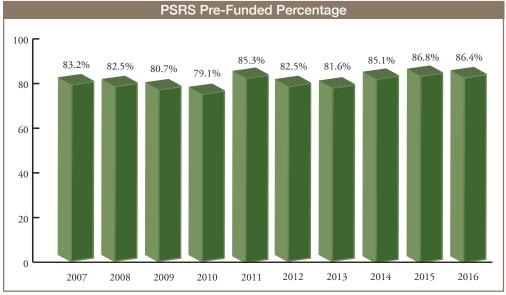
PricewaterhouseCoopers (PwC), the Systems' retained actuary, performed an actuarial experience study for PSRS and PEERS during the current year. An actuarial experience study reviews the differences between a plan's assumed and actual experience over multiple years (typically 3 to 5), with the goal of examining the trends related to actual experience and recommending changes to assumptions, if needed. The current year studies compared actual experience over the previous five years to the actuarial assumptions utilized over the same time period. In some cases, the studies reviewed ten years of prior actual experience to ensure the trends of the past five years were not an anomaly. The Systems perform an actuarial experience at least every five years.

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

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

How do we determine how well funded the Systems are? By comparing the actuarial value of assets to the amount of benefit promises made to members. This comparison shows the pre-funded status of the Systems, or in other words, the plan's ability to pay projected benefits with today's dollars. As of June 30, 2016, PSRS was 84.8% pre-funded, while PEERS was 86.4% pre-funded.

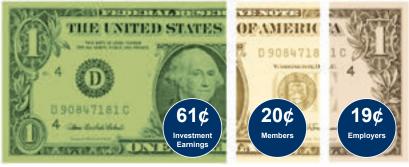




Actuarial value of assets as a percentage of actuarial accrued liabilities

#### **Funding Sources**

The investment portfolios of PSRS and PEERS represent all contributions to the plans, from members and their employers, as well as all net earnings on these assets. These funds are held in support of both current and future liabilities. In total, approximately 61¢ of every dollar used to pay retirees is generated from investment earnings. 20-Year Average



Note: The 20¢ includes member contributions and service purchases.

# Asset Allocation

The Board of Trustees recognizes that even though the Systems' investments are subject to short-term volatility, it is critical that a long-term investment focus be maintained. Given the importance of the broad asset allocation decision to the Systems' long-term investment success, internal staff is required to conduct an asset allocation/liability study at least every five years to examine the appropriate long-term strategies for the Systems and to report the results to the Board. More frequent studies are conducted if there is a significant change in the assets or liabilities. The primary goal of the asset/liability study is the development of an asset allocation that maximizes the likelihood that the investment portfolio assets will, over the long-term planning horizon, fund plan benefits within appropriate risk parameters.

The most recent study was completed during the current year with the assistance of the Systems' external investment consultant, WTW. As a result, the Board of Trustees modified the assumed rate of return and long-term asset allocation targets as discussed throughout this report.

The Board of Trustees amended the long-term target asset allocation at the June 2016 Board of Trustees meeting. The allocation to each investment program considers both the risk tolerance of the Systems and the long-term return objective. The changes to the asset allocation are as follows: Public Risk Assets decreased 5% and Private Risk Assets increased 5%. Within Public Risk Assets, Public Credit decreased from 12% to 7%. Within Private Risk Assets, Private Equity increased from 10.5% to 12%, Real Estate increased from 7.5% to 9% and Private Credit increased from 2% to 4%. The new long-term target asset allocation is expected to maintain similar levels of total portfolio risk while allowing for more efficient investment returns. However, given the nature of investing in Private Risk assets, it is expected to take several years to implement through a disciplined investment approach. The policy benchmarks will change over time as the Systems make meaningful progress to the new long-term targets.

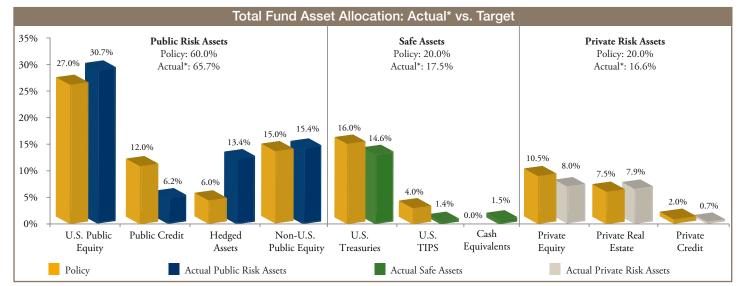
The following chart details the long-term asset allocation targets that were in effect during fiscal year 2016. The new long-term allocation targets were approved in June 2016. As such, it would not be appropriate to compare fiscal year 2016 activity to the recently, amended asset allocation.

The Systems' internal investment staff continuously monitors the asset allocation and risk and return characteristics of the portfolio. The Systems' long-term asset allocation is reviewed regularly in conjunction with plan liabilities.

The Board's broad policy allocation target as of June 30, 2016 was 60% Public Risk Assets, 20% Safe Assets and 20% Private Risk Assets. Within each broad policy target, the Board has established sub-asset class targets. For example, as the chart below indicates, the target allocation to U.S. Public Equity was 27% as of June 30, 2016.

As illustrated in the chart, internal staff utilized the flexibility built into the investment policy to strategically overweight or underweight certain asset classes throughout the year. Strategic decisions within the Public Risk Assets program included an overweight to U.S. equities and emerging market stocks relative to Europe. The overweight to U.S. equities relative to non-U.S. developed equities provided meaningful returns to the Systems in fiscal year 2016.

The Systems' asset allocation during fiscal year, was as follows:



\*Total Plan assets include 0.2% invested in an operating cash account that is not reflected in the chart above.

**PSRS/PEERS 2016 SUMMARY REPORT TO MEMBERS** 

### **Investment Performance**

Prudent and cost-efficient management of investments is a major tenant of the PSRS/PEERS investment program. Our investment staff has produced consistent and stable investment returns over long periods of time that exceed the actuarial assumed rate of return.

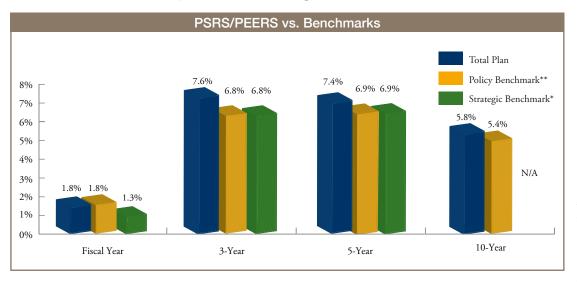
The Systems' total invested assets were \$38.1 billion as of June 30, 2016. There has been a long-term growth in assets since the inception of PSRS in 1946 and PEERS in 1965, as shown in the graph below.

#### Growth in Assets



#### Total Portfolio Returns

The Systems earned an investment return of 1.8% (1.6% net of all investment expenses and fees) for the fiscal year ended June 30, 2016. The total Plan, net of all investment expenses and fees, was marginally below the total Plan policy benchmark of 1.8% and fell short of the long-term objective (actuarial assumption) of 8.0%. Due to the long-term nature of defined benefit pension plans, it is important to look at the financial performance of the Systems over a period of years and not just at this single point in time. Over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objective. The annualized investment return for the Systems over the last five years is 7.4% (7.2% net of all investment expenses and fees), and 8.2% (8.1% net of all investment expenses and fees) over the last 30 years. The actuarial assumed rate of return was 8.0% from 1980 through fiscal year 2016. The Board of Trustees adopted a new actuarial assumed rate of return of 7.75% that is effective with the June 30, 2016 actuarial valuations and fiscal year 2017 investment performance measurement.



\*As of June 30, 2016: 39.0% Russell 3000 Index, 16.5% MSCI ACWI ex-USA Index, 14.4% Barclays U.S. Treasury: Intermediate Index, 1.6% Barclays U.S. Treasury: Long Index, 15% Barclays U.S. Intermediate Credit Index, 7.5% NFI-ODCE, 4% Barclays U.S. TIPS 1-10 Years Index, and 2% Merrill Lynch High Yield Master II Index.

\*\*As of June 30, 2016: 42.1% Russell 3000 Index, 18.8% MSCI ACWI ex-USA Index, 12.9% Barclays U.S. Intermediate Credit Index, 13.0% Barclays U.S. Treasury: Intermediate Index, 1.4% Barclays U.S. Treasury: Long Index, 2.0% Merrill Lynch 3- Month U.S. Treasury Bill Index, 7.9% NFI-ODCE, 1.4% Barclays U.S. TIPS 1-10 Years Index, and 0.6% Merrill Lynch High Yield Master II Index. The Total Plan Strategic Benchmark changes monthly based on the actual asset allocation at the end of the previous month. It was established more recently so a 10-year return is not available.

# Top 10 Stock Holdings And Their Market Values

The top ten U.S. stock holdings as of June 30, 2016 are shown in the table below.

U.S. Public Equity - Top 10 Holdings						
Top 10 Largest Holdings* June 30, 2016	Market Value	% of Total U.S. Public Equity				
Johnson & Johnson	\$ 116,390,989	1.0%				
Alphabet, Inc.	85,589,015	0.7%				
Amazon.com, Inc.	77,222,554	0.7%				
Verizon Communications, Inc.	74,708,057	0.6%				
JPMorgan Chase & Co.	68,124,206	0.6%				
PepsiCo, Inc.	64,183,325	0.5%				
AT&T, Inc.	61,165,613	0.5%				
Facebook, Inc.	58,426,907	0.5%				
Pfizer, Inc.	54,881,440	0.5%				
Microsoft Corp.	53,990,542	0.5%				
TOTAL	\$ 714,682,648	6.1%				

\* Includes only actively managed separate accounts.

A complete list of portfolio holdings is available upon request.

The following table displays the top ten non-U.S. stock holdings as of June 30, 2016.

Non-U.S. Public Equity - Top 10 Holdings						
Top 10 Largest Holdings*		% of Total Non-U.S.				
June 30, 2016	Market Value	Public Equity				
Nestle SA	\$ 65,562,165	1.1%				
Roche Holding AG	50,067,524	0.9%				
Taiwan Semiconductor Ltd.	31,366,490	0.5%				
Bayer AG	29,400,036	0.5%				
Compass Group	28,014,721	0.5%				
WPP Plc	27,050,634	0.5%				
Hoya Corp.	23,782,704	0.4%				
AIA Group Ltd.	23,314,953	0.4%				
Danone SA	22,868,529	0.4%				
ING	22,416,365	0.4%				
Total	\$ 323,844,121	5.6%				

\* Includes only actively managed separate accounts

A complete list of portfolio holdings is available upon request.

# **Financial Statements**

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

(As of June 30, 2016 with comparative totals for June 30,	2015)				_	<b>Combined Totals</b>			
		PSRS PEERS		June 30, 2016		June 30, 201			
ASSETS									
Cash	\$	75,849,297	\$	13,096,817	\$	88,946,114	\$	108,437,929	
Receivables	1,7	725,180,291		202,283,585		1,927,463,876		1,888,280,521	
Investments, at fair value	34,4	416,042,307	4	,020,681,145	3	8,436,723,452	3	8,949,628,279	
Invested securities lending collateral		365,310,827		42,658,214		407,969,041		415,683,769	
Prepaid expenses		308,247		-		308,247		85,515	
Capital assets, net of accumulated depreciation	1	25,214,511		-		25,214,511		26,014,091	
TOTAL ASSETS	36,0	607,905,480		4,278,719,761		40,886,625,241	4	1,388,130,104	
LIABILITIES	2,	303,935,648		271,389,086		2,575,324,734		2,567,039,778	
NET POSITION - RESTRICTED FOR PENSIONS	\$ 34,3	303,969,832	\$	4,007,330,675	\$	38,311,300,507	\$ 3	8,821,090,326	

The Statements of Changes in Fiduciary Net Position show the incoming revenue (additions) and outgoing expenses (deductions) of the Systems throughout the fiscal year.

(For the year ended June 30, 2016 with comparative totals for the year ended June 30, 2015)					Combined Totals Year Ended				
		PSRS		PEERS		June 30, 2016		June 30, 2015	
ADDITIONS									
Employer contributions	\$	670,794,045	\$	106,717,021	\$	777,511,066	\$	760,549,209	
Member contributions		704,785,734		114,257,497		819,043,231		799,630,875	
Net investment income		533,173,919		60,317,283		593,491,202	1	,610,861,255	
Other income		6,326		104		6,430		27,647	
TOTAL ADDITIONS		1,908,760,024		281,291,905		2,190,051,929	3	3,171,068,986	
DEDUCTIONS									
Monthly benefits		2,376,276,333		230,685,686		2,606,962,019	2	2,485,501,318	
Refunds of contributions		54,630,399		19,704,792		74,335,191		75,765,636	
Administrative expenses		11,547,623		6,981,527		18,529,150		15,641,164	
Other expenses		15,342		46		15,388		1,988	
TOTAL DEDUCTIONS		2,442,469,697		257,372,051		2,699,841,748	2	2,576,910,106	
NET (DECREASE) INCREASE IN NET POSITION		(533,709,673)		23,919,854		(509,789,819)		594,158,880	
NET POSITION - RESTRICTED FOR PENSIONS									
Beginning of year		34,837,679,505	2	3,983,410,821		38,821,090,326	38	3,226,931,446	
End of year	\$ 3	34,303,969,832	\$4	4,007,330,675	\$3	38,311,300,507	\$38	3,821,090,326	

# Summary/Conclusion

The purpose of PSRS/PEERS remains constant: to provide our members and their families with a reliable and stable source of retirement income, disability and survivor benefits.

We look forward to continuing the tradition of providing reliable retirement benefits to Missouri's dedicated public school teachers and employees for the next 70 years, and beyond.

**Summary Report to Members** for the fiscal year ended June 30, 2016

PSRS/PEERS is pleased to present the 2016 Summary Report to Members for the fiscal year ended June 30, 2016. This report highlights information from our most recent Comprehensive Annual Financial Report. Printed copies of the comprehensive report are available upon request, or may be viewed online at www.psrs-peers.org.

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Since 1946

# **PSRS/PEERS**

PUBLIC SCHOOL & EDUCATION EMPLOYEE RETIREMENT SYSTEMS OF MISSOURI