



Kentucky
Retirement Systems

Pension & Insurance TRUSTS

2016

Comprehensive Annual Financial Report

A component unit of the Commonwealth of Kentucky
For the Fiscal Year Ended June 30, 2016

Kentucky Employees Retirement System (KERS)
County Employees Retirement System (CERS)
State Police Retirement System (SPRS)

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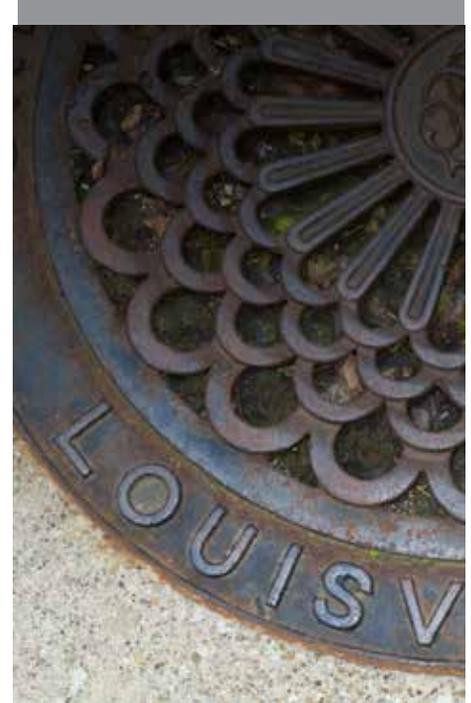
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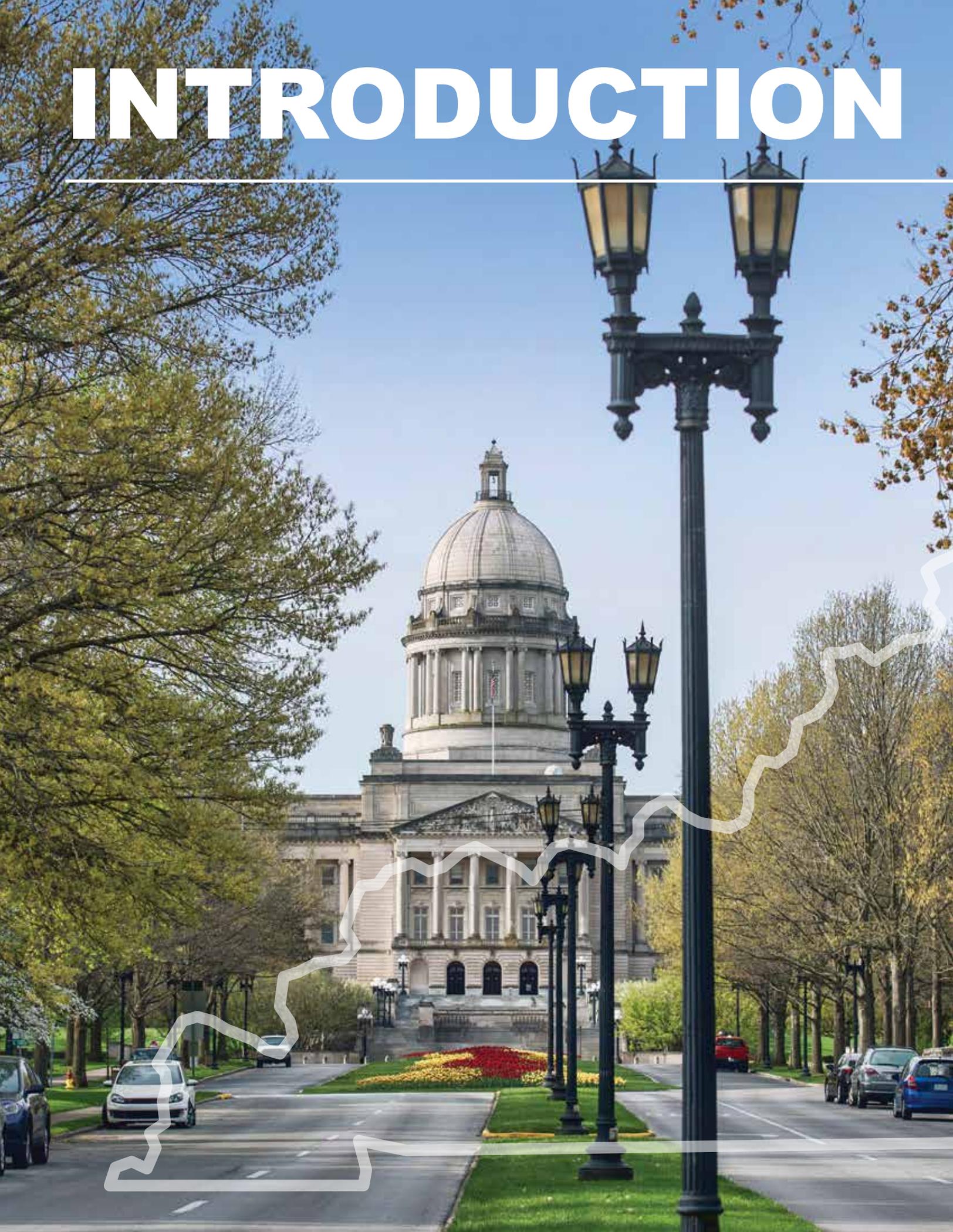
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2016

2016 Comprehensive Annual
Financial Report
For The Fiscal Year Ended
June 30, 2016
Document Prepared By KRS
Communications Division

INTRODUCTION



INTRODUCTION

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INTRODUCTION





Total Systems

See comparative totals and more detailed information on page 179.



RETIRED MEMBERS

102,725

ACTIVE MEMBERS

135,617

INACTIVE MEMBERS

126,468

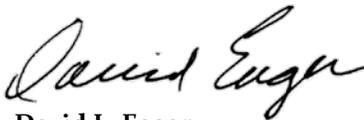
Management's Responsibility for Financial Reporting

*Management has prepared the combining financial statements of Kentucky Retirement Systems and is **responsible for the integrity and fairness** of the information presented.*

December 1, 2016 Management has prepared the combining financial statements of Kentucky Retirement Systems and is responsible for the integrity and fairness of the information presented. Some amounts included in the combining financial statements may be based upon estimates and judgments. These estimates and judgments were made utilizing the best business practices available. The accounting policies followed in the preparation of these combining financial statements conform to US Generally Accepted Accounting Principles. Financial information presented throughout the annual report is consistent with the combining financial statements.

Responsibility Ultimate responsibility for the combining financial statements and annual report rests with the Board of Directors. The Executive Director and KRS' staff assist the Board in its responsibilities. Systems of internal control and supporting procedures are maintained to provide assurance that transactions are authorized, assets safeguarded, and proper records maintained. These controls include standards in hiring and training employees, the establishment of an organizational structure, and the communications of policies and guidelines throughout the organization. The cost of a control should not exceed the benefits to be derived; the objective is to provide reasonable, rather than absolute assurance, that the combining financial statements are free of any material misstatements. These internal controls are reviewed by internal audit programs. All internal audit reports are submitted to the Audit Committee and Board of Directors.

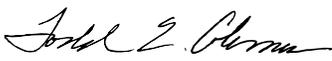
Kentucky Retirement Systems' external auditors, Dean Dorton Allen Ford, PLLC, have conducted an independent audit of the combining financial statements in accordance with US Generally Accepted Government Auditing Standards. This audit is described in their Independent Auditors' Report on page two of the Financial Section. Management has provided the external auditors with full and unrestricted access to KRS' staff to discuss their audit and related findings as to the integrity of the plan's financial reporting and the adequacy of internal controls for the preparation of combining financial statements.



David L. Eager
Interim Executive Director



Karen D. Roggenkamp
Executive Director Office of Operations



Todd E. Coleman, CPA
Director of Accounting





To the Directors & Membership

Dear Members, Retirees, Beneficiaries, and Employers:

On behalf of the Kentucky Retirement System (KRS), Board Chair, Board of Directors, management and staff, it is our pleasure to present the Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2016. This report covers the 10 plans that form the Kentucky Retirement Systems (KRS). Those plans include the Kentucky Employees Retirement System (KERS Hazardous and Non-Hazardous), the County Employees Retirement Systems (CERS Hazardous and Non-Hazardous), and the State Police Retirement System (SPRS) for both pensions and retiree healthcare. These 10 plans include more than 364,000 members. These are your family members, co-workers, and neighbors. They include firefighters, police, bus drivers, janitorial staff at local schools, and many who work directly for Kentucky state government. In other words, they are us!

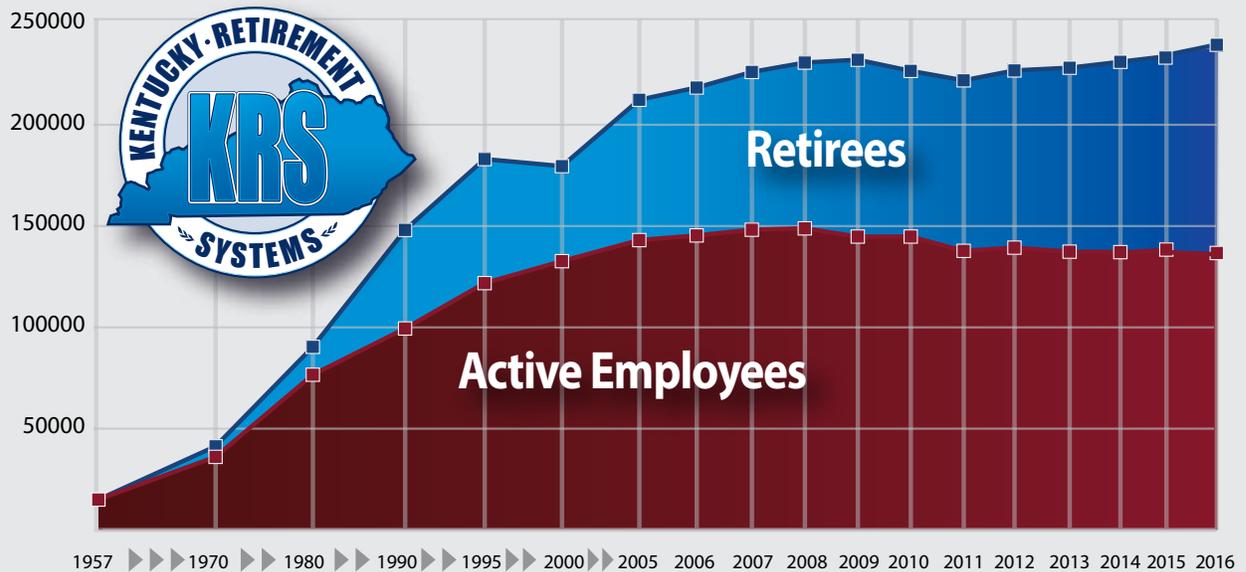
Responsibility for the accuracy of the data, as well as the completeness and fairness of the presentation, rests with the management of the Kentucky Retirement Systems. We present this information to assist the Board of Directors, members of KERS, CERS and SPRS (collectively referred to as KRS), State executive and legislative branch officials, and the general public in understanding KRS' financial and actuarial status. This CAFR conforms to the principles of governmental accounting and reporting standards set forth by the Governmental Accounting Standards Board and the Government Finance Officer's Association. KRS' financial transactions are reported on the accrual basis of accounting. Additionally, internal accounting controls provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements and supporting schedules. Please refer to Management's Discussion and Analysis in the Financial Section.

At the end of fiscal 2016, we found ourselves in a unique position – one of transition to new management, improved communications, a heightened focus on our investments, a higher level of funding, and a commitment to improve member services.

Management

A number of management changes took place during the fiscal year and subsequently. William Thielen retired on August 31. We wish to thank him for his years of service including serving as the Executive Director for six years and four years as Chief Operations Officer.

John Farris and David Eager were appointed to the Board of Trustees in April.



In June, Governor Matt Bevin, by way of Executive Order, disbanded the 13 person KRS Board of Trustees and replaced it with a 17 person Board of Directors which included those 13 members and four new Board Members: David Harris, Neil Ramsey, William Cook, and Mark Lattis. All four new members were chosen for their investment management skills and backgrounds in the investment management industry. All were also appointed to the Investment Committee.

In July, the Attorney General filed suit to block the Executive Order. As of this date, the issue remains in the Franklin County Court awaiting a ruling.

At the August Board Meeting, the Directors elected Mr. Eager to be Interim Executive Director effective September 1, 2016. Mr. Eager resigned from the Board and his place was subsequently taken by appointee David Adams.

In September 2016, the Executive Branch retained Public Finance Management (PFM) to conduct an extensive review of all of the Commonwealth's retirement systems. The review is very comprehensive and is expected to result in recommendations across the board to help each system achieve their goals of providing retirement benefits to their members in the most secure and effective manner. PFM's report is due by December 31, 2016.

Communications and Transparency

Several initiatives have been completed or are underway. The KRS website is being revamped to make it easier to navigate and provide more and better information. Our telephone system has been enhanced to make incoming calls more easily completed for both members and the public.

We continue to have regular meetings with the Public Pension Oversight Board (PPOB) and the (Legislative) Committee on Appropriations and Revenue. We are also taking the initiative to meet with legislators, particularly ones who have direct involvement in legislation affecting KRS.

Organizations that use KRS as their retirement fund are encouraged to make use of our open door policy. We want to understand their needs and also for them to learn what we are doing to improve KRS. In that same regard we have established or strengthened our relationship with media contacts both within Kentucky as well as those that have national coverage. To assist in our communications needs, in June KRS hired Dick Brown, a communications professional with extensive experience, to become director of our communications division.

Investments

Fiscal year 2016 was unquestionably the most difficult year for investors since 2008. The KRS Pension fund performance was -0.52% (net of fees) trailing its benchmark return of -0.19%. The KRS Insurance fund returned -0.09% versus its benchmark return of 0.03% (net of fees). Many factors contributed to these unfavorable conditions, including: weak overseas economics putting pressure on our own economy; our GDP slowed to 1.2% in 2016; interest rates remained low despite the U.S. Federal Reserve raising short-term rates; the labor force participation rate was near historic lows at 62.7% as of June 2016; inflation remained low with the Core Consumer Price Index growth at 1.0% year-over-year; lastly, the United Kingdom voted to leave the Eurozone, commonly referred to as "Brexit" caused a downturn in the markets at the end of the fiscal year before recovering in the beginning of fiscal 2017. The negative investment performance caused a decline in net assets across all plans.

With a renewed focus on investment performance and risk management, the Investment Committee was re-constituted with several stated objectives:

- More closely align each plan's assets to its cash flow needs and risk tolerance
- Simplify the funds' overall structures and reduce the number of managers
- Reduce management and other fees, and
- Continue to improve transparency

The 10 plans have individual characteristics with regards to benefits, funded status, cash flow requirements, risk tolerance, and the appropriate allocation of investments. As such, as one of its first initiatives, in October 2016, the Investment Committee, along with David Peden and his staff, took steps to re-allocate assets that have been invested in hedge funds in order to reduce managerial fees, improve liquidity, simplify investment portfolios and more effectively manage risks.

Funding

The severe underfunding in the KERS Non-Hazardous pension plan continued as a very significant issue for KRS. At its December 2015 meeting, the KRS Board made changes in the actuarial assumptions used to produce the 2016 annual valuation and to develop recommended employer contribution rates for each plan. The most important changes were to reduce the assumed rate of return on investments from 7.5% to 6.75% for the KERS Non-Hazardous and SPRS pension plans. These changes, although causing a further decline in the unfunded ratio, were necessary to increase the Annual Required Contribution (ARC) for KERS and SPRS for FY 2017 and FY 2018 to be included in the biennial state budget. The CERS pension plans and all insurance plan rates were unchanged at 7.5%. You can find the funding level of all plans as of June 30, 2016 on page 145 in the actuarial section.

The decline in funding levels has, and rightly so, caused a great deal of concern for our members and to many others in the Commonwealth. Gov. Bevin and the General Assembly approved fully funding the ARC for KERS and SPRS for FY 2017 and FY 2018. Also, House Bill 303 provided supplemental General Fund pension contributions in excess of the ARC as follows:

- \$58.2 million in FY 2017/\$67.6 million in FY 2018 for KERS Non-Hazardous.
- \$15.0 million in FY 2017/\$10.0 million in FY 2018 for KERS Hazardous.
- \$25.0 million in FY 2017/\$10.0 million in FY 2018 to SPRS.

Additionally, the Kentucky Permanent Pension Fund was established from General Surplus funds that should be available.



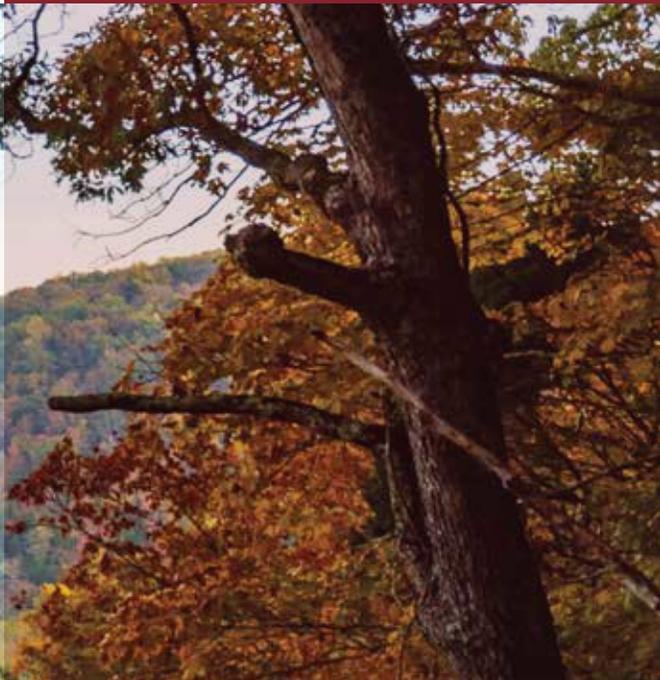
We greatly appreciate the increase in the future funding and realize how hard it is to do so in light of the Commonwealth's many needs. The Governor and the Legislature should be commended.

The variety of potential solutions to the KRS funding problems are easily identified: increase funding, reduce benefits for future employees, improve investment returns, and reduce expenses. To enact these solutions is problematic and a significant challenge for all parties – KRS itself, the Executive Branch, the General Assembly, our members, and everyone across our great Commonwealth.

Membership Focus

With changes in the management structure, KRS remained focused on our mission of serving our diverse membership needs. KRS paid almost \$1.9 billion in benefit payments to over 103,000 recipients - a significant economic benefit to Kentucky. We provided insurance to over 86,000 members and families through the end of fiscal year 2016. Our call center answered over 250,000 phone inquiries.

To better assess our administrative capabilities, KRS utilized the services of CEM Benchmarking to compare practices and expenses to 12 comparable peers. The results of their study (presented in May 2016 to the PPOB) concluded that our benefits structure was far more complex compared to our peers, and yet pension services were delivered at \$77 per active member and annuitant (\$35 below our peer median).

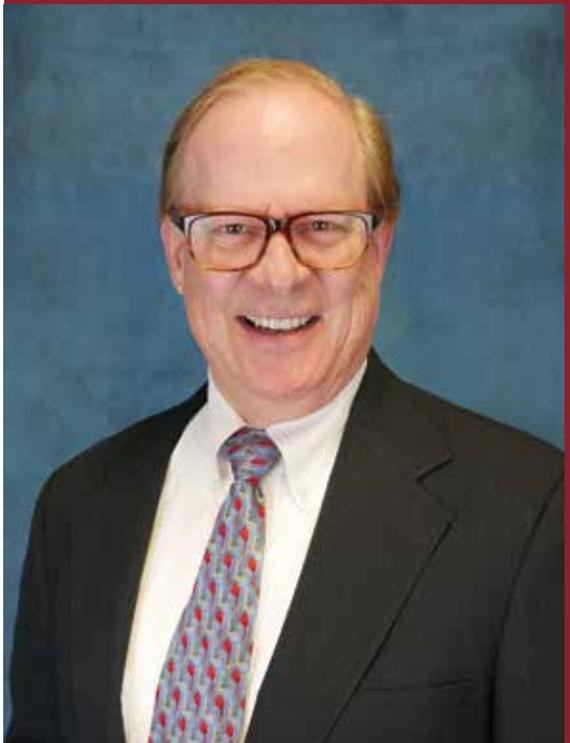


The study also recommended areas of service improvements. We needed to reduce call wait times and provide timelier pension estimates. KRS has implemented several changes including call back assist (when this option is selected, it allows the caller to retain his or her place in queue without having to remain on the phone). We urge our members to use this feature as well as the self-service portal on our website <https://myretirement.ky.gov/> to view annual statements and other member information.

Looking Forward

We have confidence that meeting our challenges is within our power, albeit the road to recovery is a long one. All of us at KRS, along with Governor Bevin, the Legislature and legislative leadership, have begun to address the important issues we are facing. We are committed to once again seeing KRS in a healthy position.

David L. Eager // Interim Executive Director





2016 Board of Directors

as of December 1, 2016

As of this publication date, the Board of Directors is comprised of 17 voting members and one non-voting member. Two are elected by KERS members, three are elected by CERS members, and one is elected by SPRS. The remaining 10 members are appointed by the Governor of Kentucky. Three of those six are selected from lists of nominees provided by the Kentucky Association of Counties, the Kentucky League of Cities, and the Kentucky School Boards Association. The Secretary of the Kentucky Personnel Cabinet serves as an ex-officio member.*

*The makeup of the KRS Board of Directors is currently in litigation.



Certificate of Achievement

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Kentucky Retirement Systems for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2015. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports and is valid for a period of one year. This was the 17th consecutive award earned by KRS. In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized document. The report must satisfy both generally accepted accounting principles and applicable legal requirements. We believe our 2016 CAFR will continue to meet the Certificate of Achievement Program's requirements, and we will be submitting it to the GFOA for their consideration.

John R. Farris, Chair
Governor Appointee
Term ends 6/17/19

Vince Lang
Elected by KERS
Term ends 3/31/18

David J. Adams
Governor Appointee
Term ends 6/17/19

Mark Lattis
Governor Appointee
Term ends 6/17/19

John E. Chilton
Governor Appointee
Term ends 6/17/18

Keith Peercy
Elected by SPRS
Term ends 3/31/19

William S. Cook
Governor Appointee
Term ends 6/17/19

Neil P. Ramsey
Governor Appointee
Term ends 6/17/18

Thomas K. Elliott
Governor Appointee
Term ends 3/31/19
Non-voting

David Rich
Elected by CERS
Term ends 10/31/17

Edwin Davis
Elected by CERS
Term ends 3/31/17

Mary Helen Peter
Elected by KERS
Term ends 3/31/18

J.T. Fulkerson
Governor Appointee
Term ends 7/1/17

Thomas B. Stephens
Personnel Secretary
Ex-Officio

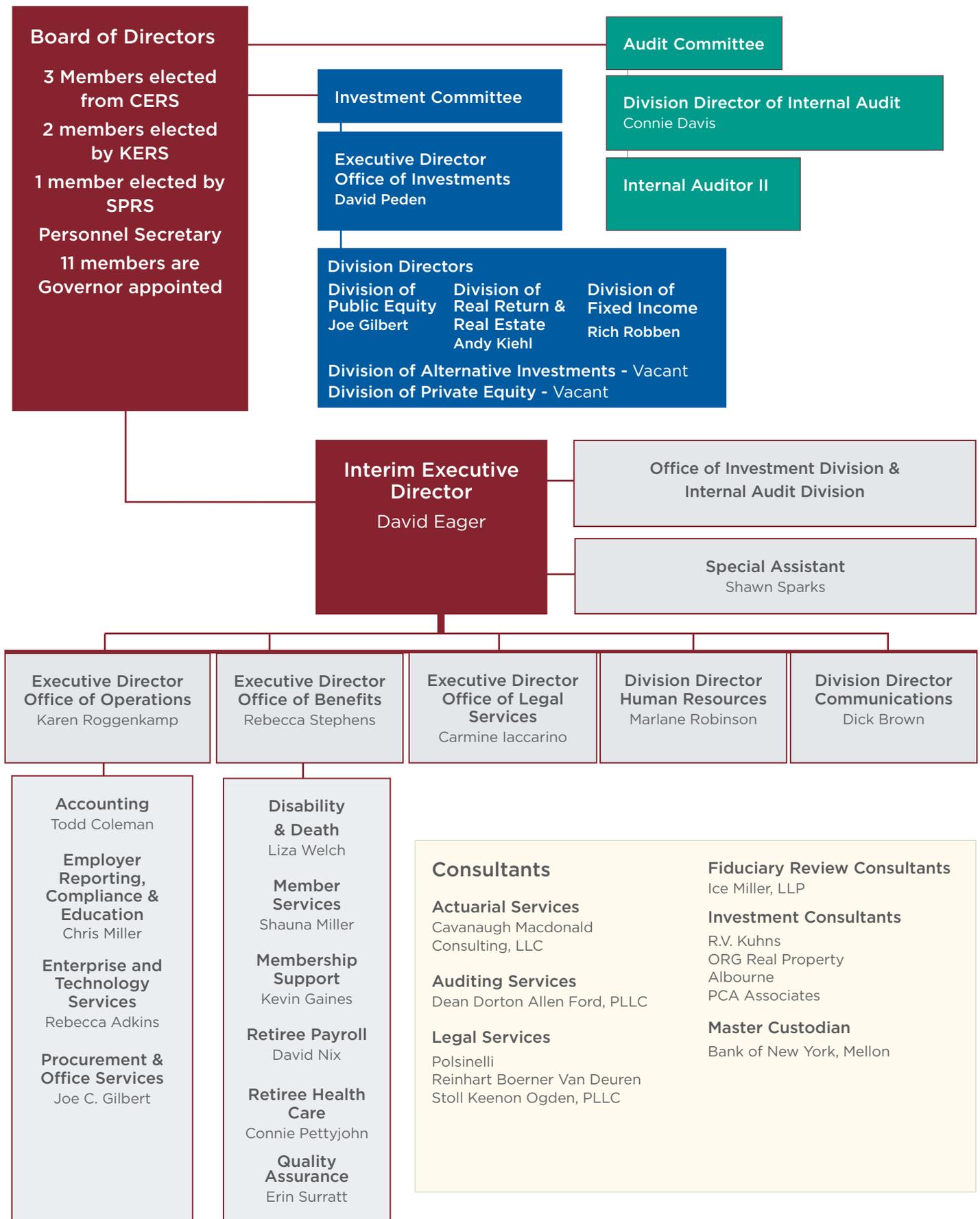
David L. Harris
Governor Appointee
Term ends 6/17/18

Randy Stevens
Governor Appointee
Term ends 7/1/17

Joseph Hardesty
Governor Appointee
Term ends 7/1/17

William Summers
Elected by CERS
Term ends 3/31/17

Agency Structure as of December 1, 2016



BENEFIT TIERS

KRS currently administers three different pension benefit tiers within our defined benefit plans. The Hybrid Cash Balance plan was established as a part of Senate Bill 2, which enacted by the Kentucky General Assembly during 2013 Regular Session.



Members participating before September 1, 2008



Members participating on or after September 1, 2008 through December 31, 2013



Members participating on or after January 1, 2014

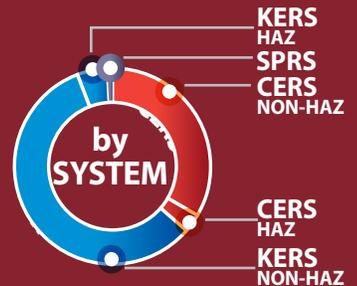


Total Systems

See comparative totals and more detailed information on page 179.



■ Tier 1 ■ Tier 2 ■ Tier 3



	ACTIVE	INACTIVE	RETIRED	TOTAL
Tier 1	76,827	91,586	102,649	271,062
Tier 2	31,763	26,499	76	58,338
Tier 3	26,927	8,383	0	35,310
TOTAL	135,517	126,468	102,725	364,710

Plan Net Position (in Thousands)

Fund	2011	2012	2013	2014	2015	2016
Pension	\$11,680,563	\$10,758,706	\$11,153,182	\$12,015,897	\$11,646,481	\$10,877,752
Insurance	\$3,096,788	\$3,089,313	\$3,521,894	\$4,154,401	\$4,246,892	\$4,231,309
Total	\$14,777,351	\$13,848,019	\$14,675,076	\$16,170,298	\$15,893,373	\$15,109,061



TOTAL 132,939 MEMBERS

**NON-HAZARDOUS
122,146 MEMBERS**

ACTIVE MEMBERSHIP

Tier 1 23,409 | Tier 2 8,441 | Tier 3 6,271

AVERAGE AGE AVERAGE SALARY
45.1 \$40,479

RETIRED MEMBERSHIP

Tier 1 40,075 | Tier 2 24 | Tier 3 0

AVERAGE AGE AVERAGE ANNUAL
BENEFIT PAYMENT
68.6 \$20,633

**HAZARDOUS
10,793 MEMBERS**

ACTIVE MEMBERSHIP

Tier 1 1,864 | Tier 2 1,046 | Tier 3 1,077

AVERAGE AGE AVERAGE SALARY
40.4 \$37,273

RETIRED MEMBERSHIP

Tier 1 2,736 | Tier 2 3 | Tier 3 0

AVERAGE AGE AVERAGE ANNUAL
BENEFIT PAYMENT
63.9 \$14,869



TOTAL 229,205 MEMBERS

**NON-HAZARDOUS
210,923 MEMBERS**

ACTIVE MEMBERSHIP

Tier 1 45,134 | Tier 2 20,017 | Tier 3 18,195

AVERAGE AGE AVERAGE SALARY
47.9 \$29,167

RETIRED MEMBERSHIP

Tier 1 51,628 | Tier 2 45 | Tier 3 0

AVERAGE AGE AVERAGE ANNUAL
BENEFIT PAYMENT
69.4 \$11,264

**HAZARDOUS
18,282 MEMBERS**

ACTIVE MEMBERSHIP

Tier 1 5,814 | Tier 2 2,076 | Tier 3 1,249

AVERAGE AGE AVERAGE SALARY
39.1 \$54,255

RETIRED MEMBERSHIP

Tier 1 6,831 | Tier 2 3 | Tier 3 0

AVERAGE AGE AVERAGE ANNUAL
BENEFIT PAYMENT
60.6 \$25,143



TOTAL 2,565 MEMBERS

**SPRS
2,565 MEMBERS**

ACTIVE MEMBERSHIP

Tier 1 606 | Tier 2 183 | Tier 3 135

AVERAGE AGE AVERAGE SALARY
37.0 \$50,167

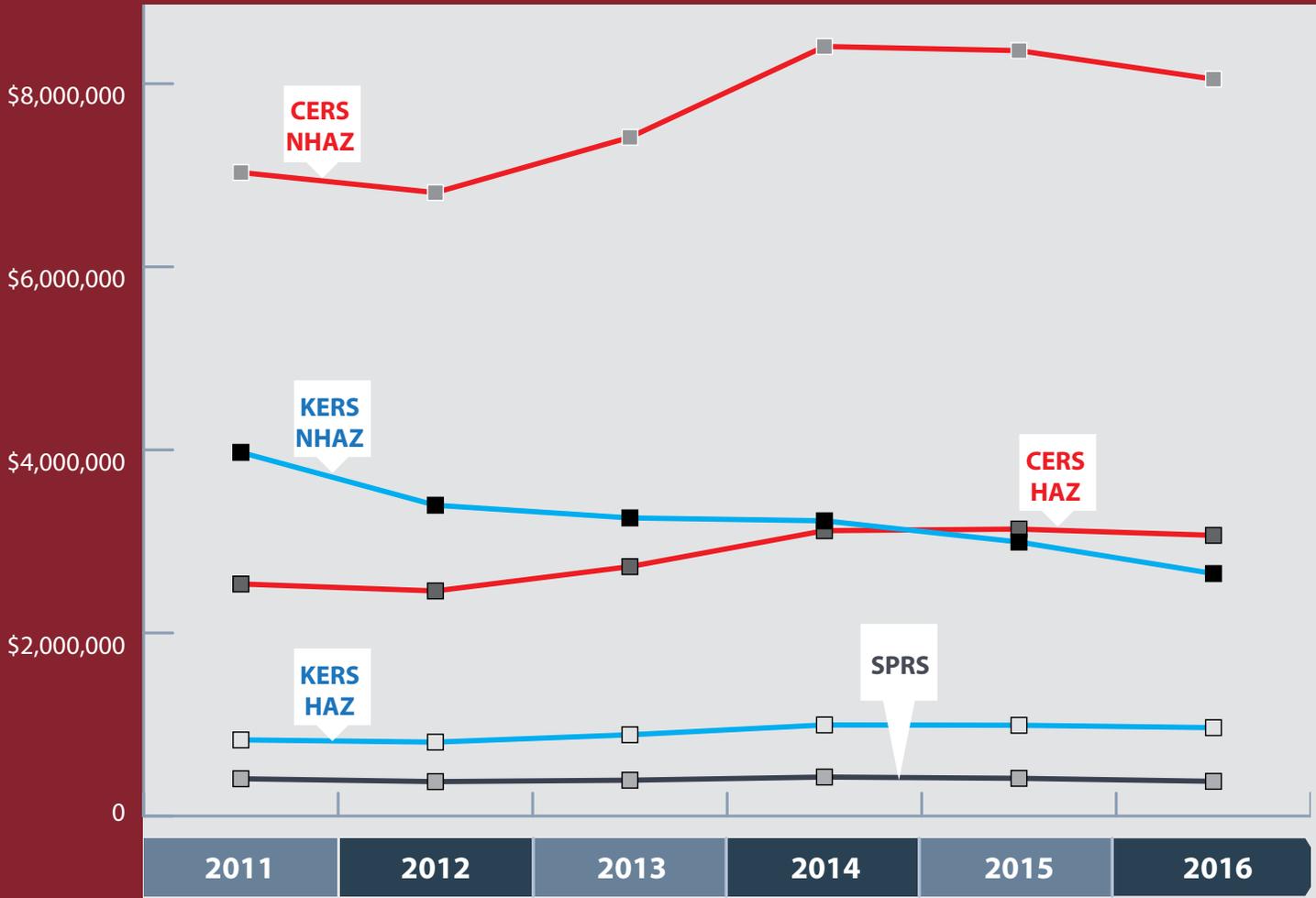
RETIRED MEMBERSHIP

Tier 1 11,378 | Tier 2 1 | Tier 3 0

AVERAGE AGE AVERAGE ANNUAL
BENEFIT PAYMENT
62.4 \$37,393



Plan Net Position



Kentucky Employees Retirement System (KERS)
was established July 1, 1956 by the state legislature.

KERS NONHAZARDOUS Plan Net Position (in Thousands)

Fund	2011	2012	2013	2014	2015	2016
Pension	\$3,544,242	\$2,977,069	\$2,760,753	\$2,578,291	\$2,327,782	\$1,980,292
Insurance	\$428,659	\$418,490	\$496,040	\$646,904	\$665,639	\$668,318
Total	\$3,972,901	\$3,395,559	\$3,256,793	\$3,225,195	\$2,993,421	\$2,648,610

KERS HAZARDOUS Plan Net Position (in Thousands)

Fund	2011	2012	2013	2014	2015	2016
Pension	\$511,085	\$476,589	\$514,592	\$561,484	\$552,468	\$527,880
Insurance	\$320,673	\$330,730	\$372,883	\$433,525	\$439,113	\$437,397
Total	\$831,758	\$807,319	\$887,475	\$995,009	\$991,581	\$965,277



County Employees Retirement System (CERS)
was established July 1, 1958 by the state legislature.

CERS NONHAZARDOUS Plan Net Position (in Thousands)						
Fund	2011	2012	2013	2014	2015	2016
Pension	\$5,583,451	\$5,381,602	\$5,795,568	\$6,528,146	\$6,440,800	\$6,141,396
Insurance	\$1,446,998	\$1,428,821	\$1,618,960	\$1,878,711	\$1,920,946	\$1,908,550
Total	\$7,030,449	\$6,810,423	\$7,414,528	\$8,406,857	\$8,361,746	\$8,049,946

CERS HAZARDOUS Plan Net Position (in Thousands)						
Fund	2011	2012	2013	2014	2015	2016
Pension	\$1,761,858	\$1,672,970	\$1,833,571	\$2,087,002	\$2,078,202	\$2,010,177
Insurance	\$773,139	\$785,874	\$891,320	\$1,030,303	\$1,056,480	\$1,056,097
Total	\$2,534,997	\$2,458,844	\$2,724,891	\$3,117,305	\$3,134,682	\$3,066,274



State Police Retirement System (SPRS) *was established July 1, 1958 by the state legislature.*

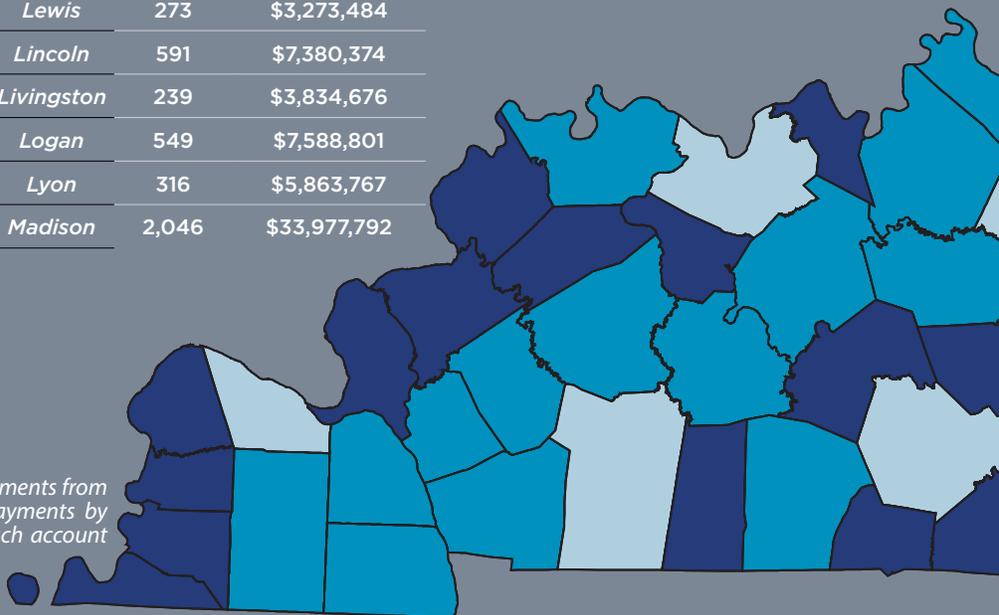
Plan Net Position (in Thousands)						
Fund	2011	2012	2013	2014	2015	2016
Pension	\$279,927	\$250,476	\$248,698	\$260,974	\$247,229	\$218,013
Insurance	\$127,319	\$125,398	\$142,691	\$164,958	\$164,714	\$160,949
Total	\$407,246	\$375,874	\$391,389	\$425,932	\$411,943	\$378,962



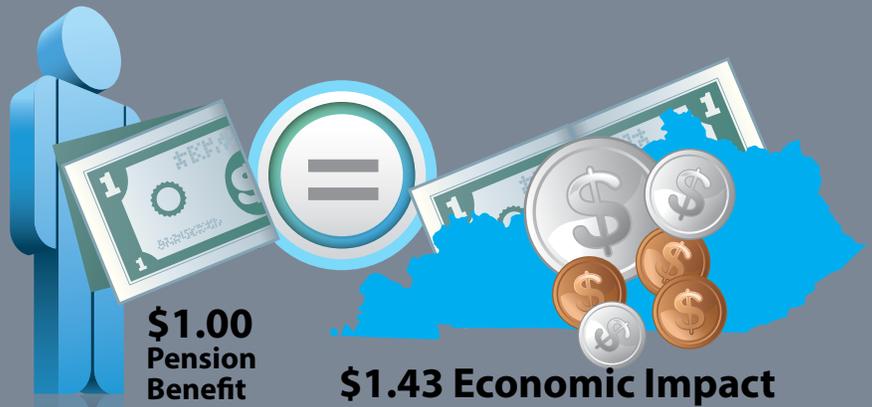
2016 Total Fiscal Year KRS Pension Benefits Paid by County

County	Payees	Total	County	Payees*	Total	County	Payees*	Total
Adair	420	\$7,055,963	Garrard	402	\$5,866,393.23	Magoffin	310	\$4,363,296
Allen	350	\$4,445,423	Grant	519	\$9,577,318	Marion	498	\$6,721,894
Anderson	1,217	\$30,314,980	Graves	771	\$11,518,101	Marshall	751	\$11,160,826
Ballard	207	\$2,956,117	Grayson	621	\$9,140,769	Martin	243	\$2,544,456
Barren	924	\$14,522,393	Green	256	\$3,559,711	Mason	359	\$5,908,768
Bath	336	\$5,089,048	Greenup	575	\$7,465,289	Mccracken	1,425	\$25,169,074
Bell	601	\$9,424,564	Hancock	207	\$2,616,884	Mccreary	362	\$3,692,839
Boone	1,480	\$29,203,783	Hardin	1,845	\$30,554,660	McLean	278	\$3,849,002
Bourbon	492	\$7,902,644	Harlan	553	\$8,512,763	Meade	368	\$5,085,796
Boyd	941	\$15,265,568	Harrison	394	\$5,932,086	Menifee	203	\$2,784,937
Boyle	802	\$13,845,871	Hart	292	\$3,998,524	Mercer	681	\$11,908,979
Bracken	197	\$2,466,888	Henderson	948	\$15,332,045	Metcalfe	291	\$3,478,861
Breathitt	426	\$6,473,674	Henry	845	\$18,399,529	Monroe	219	\$2,459,093
Breckinridge	386	\$5,568,379	Hickman	96	\$1,765,050	Montgomery	558	\$8,610,821
Bullitt	1,249	\$21,615,494	Hopkins	1,106	\$16,491,519	Morgan	534	\$8,925,700
Butler	297	\$3,940,525	Jackson	282	\$3,746,044	Muhlenberg	649	\$7,720,209
Caldwell	483	\$7,162,489	Jefferson	14,927	\$313,961,221	Nelson	856	\$14,573,745
Calloway	975	\$13,096,501	Jessamine	890	\$15,264,374	Nicholas	195	\$2,523,747
Campbell	1,308	\$24,267,396	Johnson	571	\$8,764,518	Ohio	567	\$6,113,482
Carlisle	113	\$1,466,426	Kenton	2,023	\$41,381,876	Oldham	1,165	\$23,860,842
Carroll	291	\$4,716,924	Knott	382	\$5,869,302	Owen	491	\$11,146,780
Carter	714	\$8,968,225	Knox	535	\$8,368,406	Owsley	189	\$2,846,895
Casey	317	\$4,107,400	Larue	310	\$4,739,477	Pendleton	317	\$5,066,086
Christian	1,432	\$24,450,399	Laurel	1,098	\$18,017,275	Perry	678	\$9,904,742
Clark	722	\$12,088,809	Lawrence	296	\$3,495,374	Pike	1,096	\$16,425,204
Clay	518	\$7,303,866	Lee	213	\$3,041,176	Powell	324	\$4,152,574
Clinton	220	\$2,791,544	Leslie	212	\$3,087,979	Pulaski	1,988	\$33,401,772
Crittenden	195	\$2,554,136	Letcher	528	\$6,845,361	Robertson	71	\$967,698
Cumberland	168	\$2,721,814	Lewis	273	\$3,273,484			
Daviess	2,302	\$39,779,283	Lincoln	591	\$7,380,374			
Edmonson	197	\$2,814,776	Livingston	239	\$3,834,676			
Elliott	156	\$2,136,239	Logan	549	\$7,588,801			
Estill	330	\$4,788,178	Lyon	316	\$5,863,767			
Fayette	4,886	\$105,248,797	Madison	2,046	\$33,977,792			
Fleming	421	\$7,131,212.02						
Floyd	803	\$12,376,914.86						
Franklin	6,030	\$186,771,091.67						
Fulton	154	\$1,738,530.30						
Gallatin	105	\$1,881,476.51						

NOTE: Beginning in 2016, members receiving payments from multiple accounts will be represented in the Payments by County table as one payee. In previous years each account was represented separately.



County	Payees*	Total
Rockcastle	366	\$4,492,577
Rowan	889	\$13,049,379
Russell	549	\$6,680,470
Scott	1,122	\$20,117,069
Shelby	1,619	\$34,358,575
Simpson	297	\$2,662,275
Spencer	445	\$7,991,484
Taylor	600	\$7,692,621
Todd	261	\$3,082,913
Trigg	508	\$7,140,935
Trimble	269	\$3,404,528
Union	332	\$3,416,218
Warren	2,635	\$40,914,197
Washington	365	\$4,498,264
Wayne	503	\$6,342,507
Webster	330	\$3,737,181
Whitley	965	\$12,825,801
Wolfe	340	\$4,493,958
Woodford	947	\$20,631,450



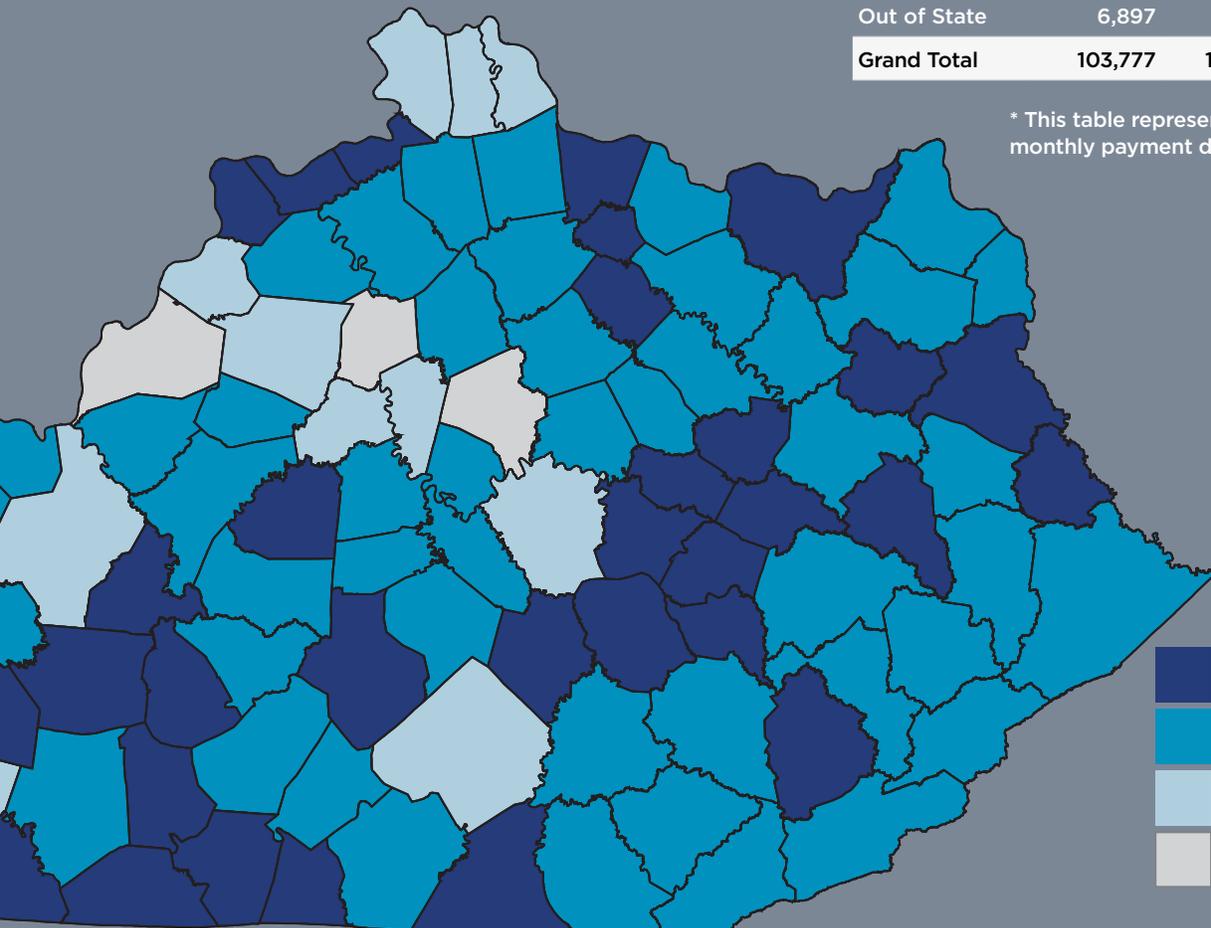
**\$1.00
Pension
Benefit**

\$1.43 Economic Impact

Pension Benefits paid to retirees and beneficiaries of Kentucky Retirement Systems have a wide-ranging impact on the state's economic health. In fiscal year 2016, KRS paid **almost \$1.9 billion** to its recipients. More than 94 percent of these recipients live in Kentucky. Not only do these dollars impact those receiving a benefit, but according to the National Institute of Retirement Security (NIRS), **each \$1.00 paid out in pension benefits supported \$1.43 in total economic activity in Kentucky.** As you can see in the chart, each county in the Commonwealth is impacted by pension benefits, and in an unsteady economy, the consistent addition of pension funds into the economy is a stabilizing element.

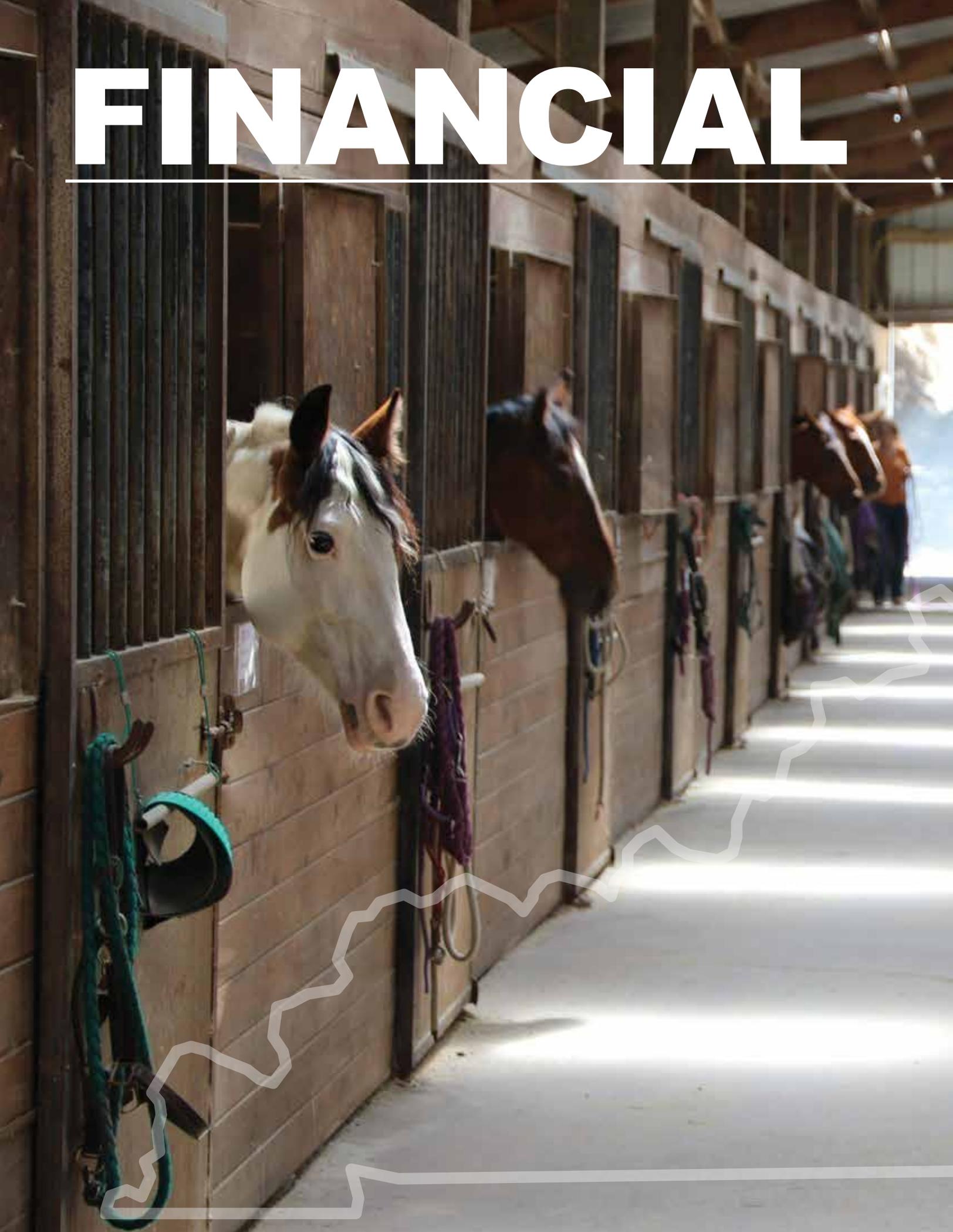
Total Fiscal Year Retirement Payments			
	Payees	%	Payments
Kentucky Total	96,880	94.00%	\$1,772,970,907
Out of State	6,897	6.00%	\$113,201,272
Grand Total	103,777	100.00%	\$1,886,172,179

* This table represents all payees receiving a monthly payment during the fiscal year.



- Less than \$5,000,000
- \$5,000,000 - \$19,999,999
- \$20,000,000 - \$79,999,999
- More than \$80,000,000

FINANCIAL



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Report of Independent Auditors

Board of Directors
Kentucky Retirement Systems
Frankfort, Kentucky

Report on the Financial Statements

We have audited the accompanying combining financial statements of the Pension Funds and Insurance Fund of the Kentucky Retirement Systems, a component unit of the Commonwealth of Kentucky, as of and for the fiscal year ended June 30, 2016, and the related notes to the combining financial statements, which collectively comprise the Kentucky Retirement Systems' basic combining financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these combining 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 combining 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 combining financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to the 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 combining financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combining financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the combining 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 combining 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 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 combining financial statements.

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

Opinion

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the respective combining plan net position of the Pension Funds and Insurance Fund of the Kentucky Retirement Systems, a component unit of the Commonwealth of Kentucky, as of June 30, 2016, and the respective combining changes in plan net position for the fiscal year then ended, in accordance with accounting principles generally accepted in the United States of America.

Report on Summarized Comparative Information

We have previously audited Kentucky Retirement Systems' 2015 combining financial statements of the Pension Funds and Insurance Fund, and we expressed an unmodified audit opinion on those audited combining financial statements in our report dated December 3, 2015. In our opinion, the summarized comparative information presented herein as of and for the fiscal year ended June 30, 2015, is consistent, in all material respects, with the audited combining financial statements from which it has been derived.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis (pages 25-31) and the Schedules of Changes in the Net Pension Liability, Schedules of the Net Pension Liability, Schedules of Employer Contributions, Schedules of Funding Progress, and Schedules of Contributions from Employers and Other Contributing Entities (pages 73-82) be presented to supplement the basic combining financial statements. Such information, although not a part of the basic combining financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic combining financial statements in an appropriate operational, economical, 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 combining financial statements, and other knowledge we obtained during our audit of the basic combining financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures did not provide us with sufficient evidence to express an opinion or provide any assurance.

Additional Supporting Schedules

Our audit was conducted for the purpose of forming an opinion on the combining financial statements that collectively comprise the Kentucky Retirement Systems' basic combining financial statements. The additional supporting schedules (pages 83-84) are presented for purposes of additional analysis and are not a required part of the basic combining financial statements. The additional supporting schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic combining financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic combining 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 combining financial statements or to the basic combining financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules are fairly stated, in all material respects, in relation to the basic combining financial statements as a whole.

The Introductory, Actuarial, Investment, and Statistical sections are presented for purposes of additional analysis and are not a required part of the combining financial statements. These sections have not been subjected to the auditing procedures applied in the audit of the combining financial statements and accordingly, we offer no opinion on them.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated December 1, 2016 on our consideration of the Kentucky Retirement Systems' 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 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 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 Kentucky Retirement Systems' internal control over financial reporting and compliance.

Dean Dotson Allen Ford, PLLC

December 1, 2016
Lexington, Kentucky

Management's DISCUSSION & ANALYSIS (Unaudited)

This discussion and analysis of Kentucky Retirement Systems' (KRS) financial performance provides an overview of the pension and insurance fund financial activities for the fiscal year ended June 30, 2016. Please read it in conjunction with the combining financial statements, which begin on page 32.

Pension Funds

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

Total Pension Net Position was \$11.6 billion at the beginning of the fiscal year and decreased by 6.6% to \$10.9 billion at June 30, 2016. The \$768.7 million decline is primarily attributable to negative cash flow experienced by all plans as benefit payments continued to rise and contributions declined. KERS Non-Hazardous experienced the largest net position change at \$347.5 million (14.9% decline).

CONTRIBUTIONS

- » Total contributions reported for fiscal 2016, were \$1,274.6 million compared to \$1,322.9 million in fiscal 2015. This change was caused by employer contribution rate decreases for CERS non-hazardous and CERS hazardous plans. KERS Non-Hazardous, KERS Hazardous and SPRS experienced a decrease of \$25.0 million in contributions over the prior year due to lower payroll in fiscal 2016. Additionally, the Bank of America investment one-time settlement of \$23.0 million collected in fiscal 2015 attributed to the decrease in fiscal 2016.
- » The member health insurance contributions totaled \$14.7 million for the fiscal year ended June 30, 2016, compared to \$12.6 million in the prior fiscal year.

INVESTMENTS

- » The investment portfolio reported a net of expense return of -0.52% for the fiscal year, trailing fiscal 2015 net of expense returns of 2.01%. The investment portfolio experienced unrealized losses in the Non U.S. and Emerging Market asset classes of Public Equity and Absolute Returns. These losses were slightly offset with gains in the U.S. Public, Private Equity and Real Estate asset classes. The Emerging Market asset class was discontinued during fiscal 2016.
- » The net depreciation in the fair value of investments was \$201.8 million for the fiscal year ended June 30, 2016 compared to net depreciation of \$14.8 million for the prior fiscal year. This \$187 million decrease was due to unfavorable market conditions.
- » Interest, dividend and net securities lending income for fiscal 2016 was \$213.9 million compared to \$300.7 million in fiscal 2015.

- » Investment expenses totaled \$88.0 million for fiscal 2016 compared to \$81.5 million in prior year.

DEDUCTIONS

- » Pension benefits paid to retirees and beneficiaries for fiscal 2016 totaled \$1,903.6 million compared to \$1,832.8 million in fiscal 2015 (3.9% increase). Refund of contributions paid to former members upon termination of employment for fiscal 2016 totaled \$31.0 million compared to \$32.9 million in fiscal 2015.
- » KRS' 2016 pension administrative expense totaled \$32.3 million compared to \$31.0 million in the prior year.

ACTUARIAL

- » The actuarial value of the total pension liability was determined as of June 30, 2016, using standard roll forward techniques starting with the total liability as of June 30, 2015. The roll forward calculation adds the annual cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year then applies the expected investment rate of return for the year.
- » For the valuations as of June 30, 2016, the discount rate and assumed investment rate of return used to measure the total pension liability were reduced to 6.75% for KERS Non-Hazardous and SPRS. The discount rate and assumed investment rate of return for CERS Non-Hazardous, CERS Hazardous and KERS Hazardous remained at 7.5%. The long-term assumed investment rate of return and discount rate were based upon an analysis adopted by the Board of Trustees on December 3, 2015.
- » The FY 2016 pension funded ratios by plan were:
 - » KERS Non-Hazardous: 16.0%, a decline of 3.0%
 - » KERS Hazardous: 59.7%, a decline of 2.5%
 - » CERS Non-Hazardous: 59.0%, a decline of 1.3%
 - » CERS Hazardous: 57.7%, a decline of 0.3%
 - » SPRS: 30.3%, a decline of 3.5%

Insurance Fund

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

The combined net position of the insurance fund administered by KRS decreased by \$15.6 million during fiscal 2016. Total combined net position for the fiscal year was \$4.2 billion. All but one system ended with a net decrease in net position. KERS Non-Hazardous ended the fiscal year with a net increase of \$2.7 million.

CONTRIBUTIONS

- » Employer contributions of \$333.1 million were received in fiscal 2016 compared to \$343.6 million in fiscal 2015. Total contributions declined 3.1% primarily due to lower contribution rates across all systems. Contributions also decreased as most retirees have moved from KRS self-insured plans to vendor provided Medicare Advantage plans.
- » The reimbursement of retired/re-employed health insurance for fiscal 2016 totaled \$9.2 million compared to \$8.8 million in the prior fiscal year. Employer contributions are required for all retirees returning to work, but employee contributions are waived.

INVESTMENTS

- » Interest, dividend and net securities lending income for fiscal 2016 was \$80.5 million compared to \$100.5 million in fiscal 2015. The primary driver of this decline was due to unrealized losses in the Non U.S. and Emerging Market asset classes of Public Equity and Absolute Returns. These losses were slightly offset with gains in the US Public, Private Equity, and Real Estate asset classes. The Emerging Market asset class was discontinued during fiscal 2016.
- » The investment portfolio reported a net expense return of -0.09% for the fiscal year, trailing fiscal 2015 net of expense returns of 1.86%, and was below the 7.5% assumed rate of return fiscal 2016 target.
- » The net depreciation in the fair value of investments for fiscal 2016 was \$51.5 million compared to net appreciation of \$3.9 million for the prior fiscal year. This \$55.4 million decrease was due to unfavorable market conditions.

- » Investment expenses totaled \$34.1 million for fiscal 2016 compared to \$28.0 million in prior year.

DEDUCTIONS

- » The total of insurance premiums paid plus self-funded reimbursements was \$351.4 million for fiscal 2016. Insurance premiums paid plus self-funded healthcare reimbursements for the prior fiscal year totaled \$335 million. Premiums paid by the fund for hospital and medical insurance coverage (under age 65) totaled \$344.9 million. Payments for the self-funded healthcare reimbursements (over age 65) totaled \$6.4 million.
- » KRS' 2016 insurance administrative expense totaled \$2.0 million compared to \$2.2 million in the prior year.

ACTUARIAL

- » The actuarial value of the total insurance liability was determined as of June 30, 2016, using standard roll forward techniques starting with the total liability as of June 30, 2015. The roll forward calculation adds the annual cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year then applies the expected investment rate of return for the year.
- » For the valuations as of June 30, 2016, the discount rate and assumed investment rate of return used to measure the total insurance liability was 7.50% for all plans as adopted by the Board of Trustees on December 3, 2015.
- » The FY 2016 insurance funded ratios by plan were:
 - » KERS Non-Hazardous: 30.3%, an increase of 1.5%
 - » KERS Hazardous: 125.3%, an increase of 4.9%
 - » CERS Non-Hazardous: 69.6%, an increase of 0.9%
 - » CERS Hazardous: 72.9%, an increase of 0.6%
 - » SPRS: 67.1%, an increase of 1.4%

Using This Financial Report

Because of the long-term nature of a defined benefit pension plan and post-employment healthcare benefit plan, the combining financial statements alone cannot provide sufficient information to properly reflect the plans' ongoing plan perspective. This financial report consists of two combining financial statements and two required schedules of historical trend information. All plans within KRS are included in the aforementioned combining financial statements. The Combining Statement of Plan Net Position for the Pension Funds on page 32, and the Combining Statement of Plan Net Position for the Insurance Fund on page 34, provides a snapshot of the financial position of each of the three systems at June 30, 2016. The Combining Statement of Changes in Plan Net Position for the Pension Funds on page 33, and the Combining Statement of Changes in Plan Net Position for the Insurance Fund on page 35, summarizes the additions and deductions that occurred for each of the three systems during fiscal 2016.

The Schedules of the Net Pension Liability on page 65, the Schedules of Changes in the Net Pension Liability on pages 80-81, and the Schedules of Funding Progress on pages 73-75, include current and historical trend information about the actuarially funded status of each plan from a long-term, ongoing plan perspective and the progress made in accumulating sufficient assets to pay benefits and insurance premiums when due. The Schedules of Employer Contributions on pages 78-79, and the Schedules of Contributions from Employers and Other Contributing Entities on pages 75-76 present current and historical trend information about the annual required contributions and the contributions made in relation to the requirement. These schedules provide information that contributes to understanding the changes over time in the funded status of the plans.

Kentucky Retirement Systems Combined

KRS' combined net position decreased \$784.3 million, during the fiscal year ended June 30, 2016. Net position for the prior fiscal year decreased by \$276.9 million. The decrease in net position for the plan year ended June 30, 2016, is primarily attributable to a decrease in net investment income. The analysis focuses on net position (Table 1) and changes in net position (Table 2) of KRS' Pension and Insurance Funds.

FUND ACTIVITIES

Pension Fund Activities

Net position of the pension funds decreased by \$768.7 million (\$10,877.8 million compared to \$11,646.5 million). All of these assets are restricted in use to provide monthly retirement allowances to members who contributed to the pension funds as employees and their beneficiaries. Net position of the insurance fund decreased by \$15.6 million (\$4,231.3 million compared to \$4,246.9 million). All of these assets are restricted in use to provide hospital and medical insurance benefits to members of the pension funds who receive a monthly retirement allowance.

Financial data presented in this report is abbreviated "in thousands" or "in millions."

Table 1. Plan Net Position (in Millions)

Assets	Pension Funds			Insurance Fund			Total		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Cash & Investments	\$11,410.5	\$12,217.5	\$12,758.2	\$4,401.2	\$4,451.2	\$4,392.4	\$15,811.7	\$16,668.7	\$17,150.6
Receivables	442.5	459.2	750.2	171.0	148.1	289.3	613.5	607.3	1,039.5
Equip/Int Assets, net of dep/amort.	8.2	9.9	10.5	-	-	-	8.2	9.9	10.5
Total Assets	11,861.2	12,686.6	13,518.9	4,572.2	4,599.3	4,681.7	16,433.4	17,285.9	18,200.6
Total Liabilities	(983.4)	(1,040.1)	(1,503.0)	(340.9)	(352.4)	(527.3)	(1,324.3)	(1,392.5)	(2,030.3)
Plan Net Position	\$10,877.8	\$11,646.5	\$12,015.9	\$4,231.3	\$4,246.9	\$4,154.4	\$15,109.1	\$15,893.4	\$16,170.3

Table 2. Changes in Plan Net Position (in Millions)

Additions	Pension Funds			Insurance Fund			Total		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Member Cont.	\$307.4	\$298.5	\$275.0	\$-	\$-	\$-	\$307.4	\$298.5	\$275.0
Employer Cont.	949.8	985.9	768.3	333.1	\$343.6	\$397.4	1,282.9	1,329.5	1,165.7
Health Ins. Cont.	14.7	12.6	12.4	-	-	-	14.7	12.6	12.4
Pension Spiking Cont.	2.7	2.9	-	-	-	-	2.7	2.9	-
BOA Settlement	-	23.0	-	-	-	-	-	23.0	-
Premiums Rec'd	-	-	-	0.7	0.9	2.4	0.7	0.9	2.4
Retired Remp Ins.	-	-	-	9.2	8.8	5.6	9.2	8.8	5.6
Medicare Subsidy	-	-	-	-	-	-	-	-	-
Invest. Inc. (net)	(75.9)	204.4	1,643.0	(5.2)	76.4	527.1	(81.1)	280.8	2,170.1
Total Additions	1,198.7	1,527.3	2,698.7	337.8	429.7	932.5	1,536.5	1,957.0	3,631.2
Deductions									
Benefit Payments	1,903.6	1,832.8	1,769.7	-	-	-	1,903.6	1,832.8	1,769.7
Refunds	31.0	32.9	33.6	-	-	-	31.0	32.9	33.6
Administrative Ex.	32.3	31.0	32.6	2.0	2.2	1.6	34.3	33.2	34.2
Healthcare Costs	-	-	-	351.4	335.0	298.4	351.4	335.0	298.4
Capital Projects Exp.	0.5	-	-	-	-	-	0.5	-	-
Total Deductions	1,967.4	1,896.7	1,835.9	353.4	337.2	300.0	2,320.8	2,233.9	2,135.9
Increase (Decrease) in Plan Net Position	(\$768.7)	(\$369.4)	\$862.8	(\$15.6)	\$92.5	\$632.5	(\$784.3)	(\$276.9)	\$1,495.3



Pension Fund Activities

Member contributions increased by \$8.9 million. This is partially due to an increase in service purchases following the passage of Senate Bill 2 in 2015.

Retirement contributions are calculated by applying a percentage factor to salary and are remitted by each employer on behalf of the member. Non-Hazardous members pay pension contributions of 5% of creditable compensation and Hazardous members contribute 8% of creditable compensation.

Employer contributions decreased by \$36.1 million as a result of the reduction in the employer contribution rate applied to CERS Non-Hazardous and Hazardous covered payrolls.

Total pension fund deductions increased by \$70.7 million caused by an increase in benefit payments, which were \$70.8 million higher than fiscal 2015.

Net investment income decreased by \$280.3 million. This is illustrated in Table 3. The pension funds experienced a decrease in income primarily due to the decrease in the fair value of investments.

Table 3. Investment Income (Loss) for Pension Funds (in Millions)

Asset	2016	2015	2014
Increase (Decrease) in fair value of investments	\$(276)	\$(557)	\$489
Investment income net of investment expense	125	219	281
Gain on sale of investments	75	542	873
Net Investment Income (Loss)	\$(76)	\$204	\$1,643

Insurance Fund Activities

Employer contributions paid into the insurance fund decreased by \$10.5 million over the prior fiscal year. This decrease is a result of the reduction in the employer contribution rate applied to CERS Non-Hazardous and Hazardous covered payrolls.

Net investment income decreased \$81.6 million. This decrease in net investment income is due primarily to the decrease in the fair value of investments. This is illustrated in Table 4 as follows:

Table 4. Investment Income (Loss) for Insurance Fund (in Millions)

Asset	2016	2015	2014
Increase (Decrease) in fair value of investments	\$(46)	\$(126)	\$288
Investment income net of investment expense	47	72	81
Gain on sale of investments (Loss)	(6)	130	158
Net Investment Income (Loss)	\$(5)	\$76	\$527

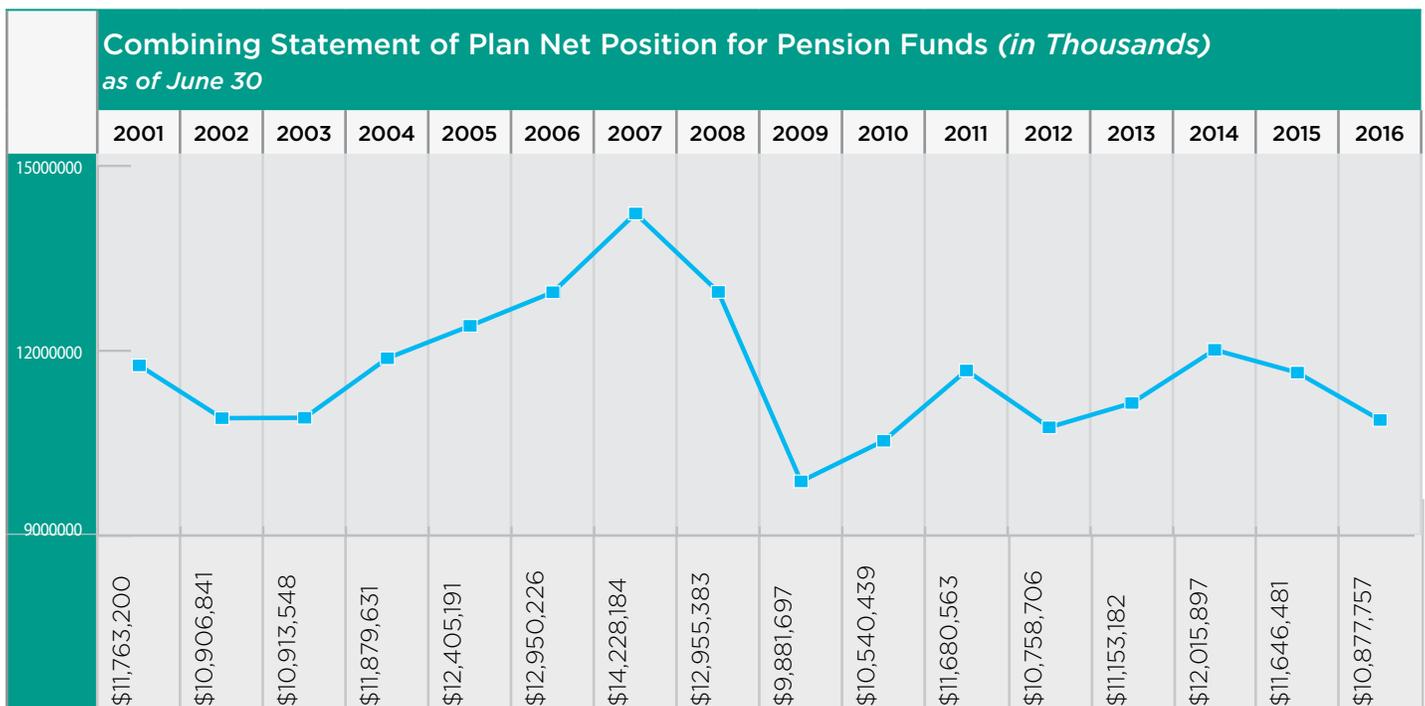


Historical Trends

Accounting standards require that the Statement of Net Position state asset value at fair value and include only benefits and refunds due plan members and beneficiaries and accrued investment and administrative expense as of the reporting date. Information regarding the actuarial funding status of the Pension and Insurance Funds is provided in the Schedules of the Net Pension Liability on page 65 and the Schedules of Funding Progress on pages 73-75. The asset value stated in the Schedules of Funding Progress is the actuarial value of assets. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the investment return assumption. The amount recognized each year is 20% of the difference between market value and expected market value. The actuarial accrued liability is calculated using the entry age normal cost funding method. This actuarial accrued liability is the measure of the cost of benefits that have been earned to date by KRS' members, but not yet paid. The difference in value between the actuarial accrued liability and the actuarial value of assets is defined as the unfunded actuarial accrued liability.

The graphs below illustrate the decline of contributions and increase in benefits paid.

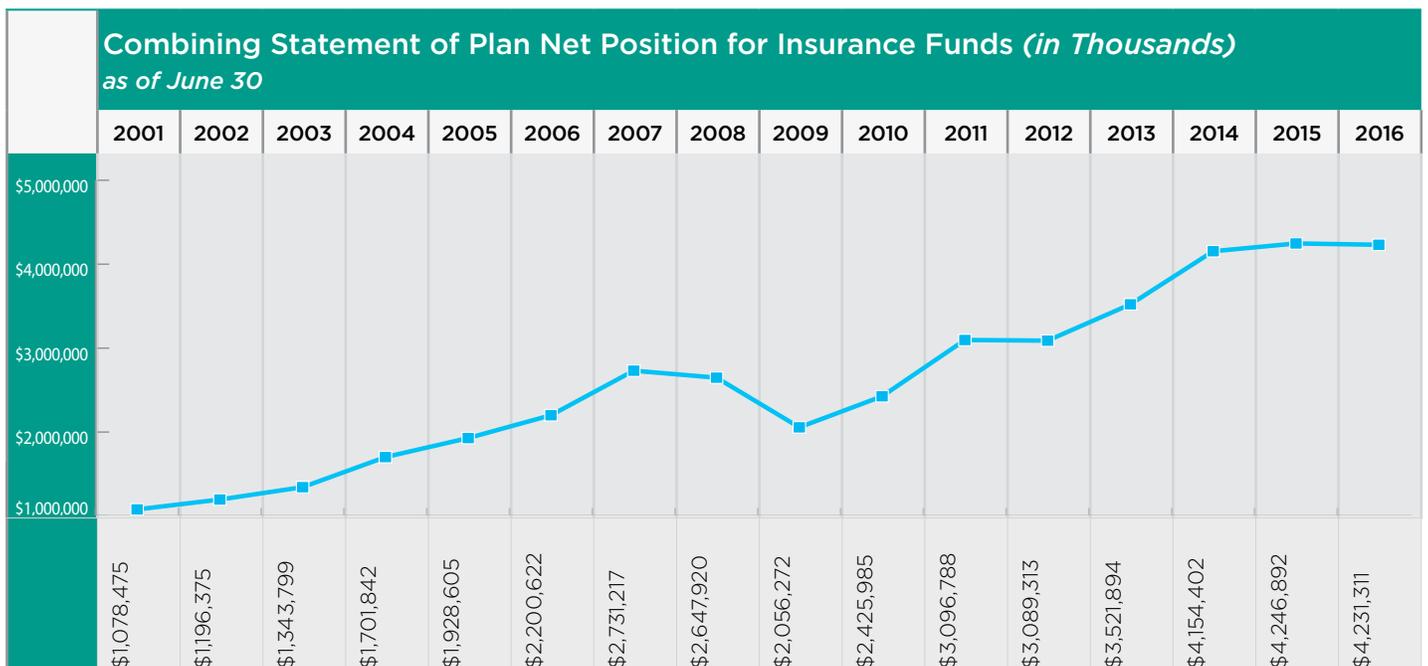
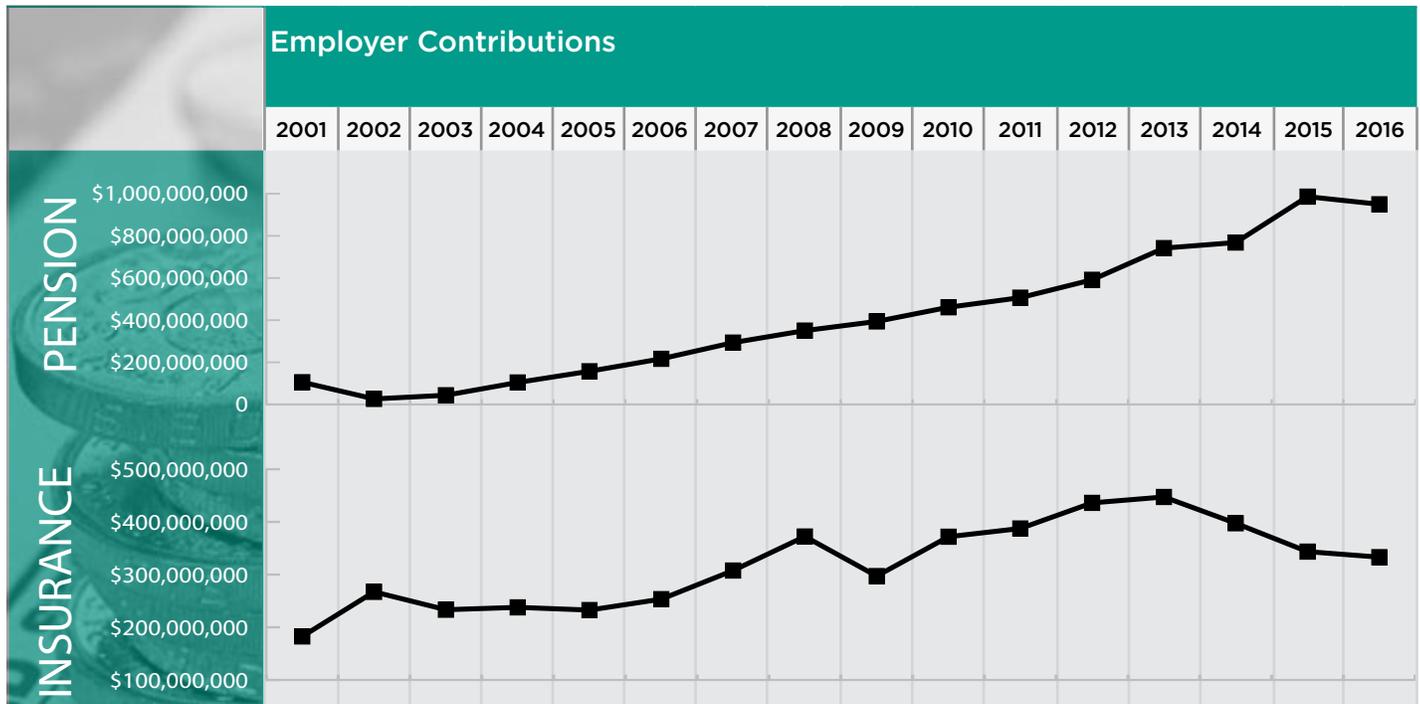
The unfunded actuarial accrued liability in the pension plans increased by \$1,521.4 million for a total unfunded amount of \$18,136.6 million as of June 30, 2016, compared to an unfunded amount of \$16,615.2 million as of June 30, 2015. In recent years, funding levels for the pension funds have fallen significantly due to investment



returns that were less than the actuarially assumed rate and higher than anticipated retirement rates. In addition, KERS Non-Hazardous, KERS Hazardous, and SPRS were funded less than the actuarially determined rate in prior years.

The insurance plan's unfunded actuarial accrued liability as of June 30, 2016, increased to \$3,033.8 million from \$3,055.8 million as of June 30, 2015. This is an increase in the unfunded actuarial accrued liability of \$22 million.

Annual required contributions of the employers as actuarially determined and actual contributions made by employers and other contributing entities in relation to the required contributions are provided in the Schedules of Employer Contributions on pages 78-79, and in the Schedules of Contributions from Employers and Other Contributing Entities on pages 75-76. The difference in the annual required contributions and actual contributions made by employers and other contributing entities in the KERS and SPRS funds is attributable to the fact that the employer contribution rate set by the Kentucky General Assembly was less than the rate recommended by the KRS Actuary in prior years and adopted by the KRS Board of Trustees.



Combining Statement of Plan Net Position for Pension Funds (in Thousands)
as of June 30, 2016 with Comparative Totals as of June 30, 2015

Assets						2016	2015
	KERS Non Haz	KERS Haz	CERS Non Haz	CERS Haz	SPRS	KRS Total	KRS Total
Cash & Short-Term Investments							
Cash	\$386	\$65	\$483	\$139	\$49	\$1,122	\$4,255
Short-Term Investments	85,979	15,248	143,880	55,234	5,903	306,244	395,368
Total Cash and Short-Term Investments	86,365	15,313	144,363	55,373	5,952	307,366	399,623
Receivables							
Contributions	57,461	3,674	40,414	14,307	10,582	126,438	149,629
Investment Income	60,891	16,083	176,388	56,297	6,367	316,026	308,302
Note Receivable	-	-	-	-	-	-	1,265
Total Receivables	118,352	19,757	216,802	70,604	16,949	442,464	459,196
Investments at Fair Value							
Corporate & Government Bonds	311,226	47,855	559,524	183,583	28,408	1,130,596	2,680,423
Absolute Return	201,820	52,775	629,018	199,324	21,259	1,104,196	1,282,166
Private Equities	356,583	65,016	685,717	232,592	27,547	1,367,455	1,285,572
Derivatives	1,791	619	7,262	2,384	212	12,268	6,156
Corporate Stocks	728,375	272,136	3,260,514	1,059,962	95,419	5,416,406	5,201,092
Real Return	160,678	43,930	512,690	167,379	17,600	902,277	-
Real Estate	75,469	28,444	303,771	97,147	11,437	516,268	619,177
Total Investments at Fair Value	1,835,942	510,775	5,958,496	1,942,371	201,882	10,449,466	11,074,586
Securities Lending Collateral Invested	118,742	31,861	369,572	120,755	12,754	653,684	743,261
Equipment (net of accumulated depreciation)	124	12	221	20	2	379	185
Intangible Assets (net of accumulated amortization)	2,666	231	4,548	373	35	7,853	9,739
Total Assets	2,162,191	577,949	6,694,002	2,189,496	237,574	11,861,212	12,686,590
Liabilities							
Accounts Payable	3,015	1,986	5,612	1,502	384	12,499	12,039
Investment Accounts Payable	60,142	16,222	177,422	57,062	6,423	317,271	284,809
Securities Lending Collateral Obligations	118,742	31,861	369,572	120,755	12,754	653,684	743,261
Total Liabilities	181,899	50,069	552,606	179,319	19,561	983,454	1,040,109
Total Net Position for Pension Benefits	\$1,980,292	\$527,880	\$6,141,396	\$2,010,177	\$218,013	\$10,877,758	\$11,646,481

See accompanying notes to the combining financial statements.

Combining Statement of Changes in Plan Net Position for Pension Funds (in Thousands)
for the fiscal year ended June 30, 2016 with Comparative Totals for the fiscal year ended June 30, 2015

Additions						2016	2015
	KERS Non Haz	KERS Haz	CERS Non Haz	CERS Haz	SPRS	KRS Total	KRS Total
Members' Contributions	\$101,677	\$15,055	\$133,987	\$51,554	\$5,149	\$307,422	\$298,490
Employers' Contributions	512,670	23,690	282,767	104,952	25,723	949,802	985,996
Pension Spiking Contributions	414	70	1,339	762	99	2,684	2,858
Health Insurance Contributions (HB1)	4,817	684	7,687	1,418	113	14,719	12,570
Bank of America Settlement	-	-	-	-	-	-	23,000
Total Contributions	619,578	39,499	425,780	158,686	31,084	1,274,627	1,322,914
Investment Income							
From Investing Activities							
↘ Net Depreciation in FV	(45,200)	(7,502)	(111,343)	(31,313)	(6,487)	(201,845)	(14,831)
↘ Interest/Dividends	40,149	10,079	117,432	38,076	4,276	210,012	297,935
↘ Total Investing Activities Income (Loss)	(5,051)	2,577	6,089	6,763	(2,211)	8,167	283,104
↘ Investment Expense	16,270	4,413	49,107	16,501	1,707	87,998	81,505
Net Income from Investing Activities	(21,321)	(1,836)	(43,018)	(9,738)	(3,918)	(79,831)	201,599
From Securities Lending Activities							
↘ Securities Lending Income	865	216	2,620	845	90	4,636	3,056
From Securities Lending Expense							
↘ Security Borrower Rebates (Income)	90	-	9	1	-	100	(159)
↘ Security Lending Agent Fees	116	32	392	127	13	680	444
Net Income from Securities Lending Activities	659	184	2,219	717	77	3,856	2,771
Total Net Investment Income (Loss)	(20,662)	(1,652)	(40,799)	(9,021)	(3,841)	(75,975)	204,370
Total Additions	598,916	37,847	384,981	149,665	27,243	1,198,652	1,527,284
Deductions							
Benefit Payments	923,288	59,306	651,247	213,448	56,268	1,903,557	1,832,799
Refunds	12,130	2,211	13,754	2,879	11	30,985	32,881
Capital Project Expenses	181	15	307	26	4	533	--
Administrative Expenses	10,807	903	19,078	1,337	176	32,300	31,020
Total Deductions	946,406	62,435	684,385	217,690	56,459	1,967,375	1,896,700
Net Decrease in Plan Net Position	(347,490)	(24,588)	(299,404)	(68,025)	(29,216)	(768,723)	(369,416)
Total Net Position for Pension Benefits							
Beginning of Year	2,327,782	552,468	6,440,800	2,078,202	247,229	11,646,481	12,015,897
End of Year	\$1,980,292	\$527,880	\$6,141,396	\$2,010,177	\$218,013	\$10,877,758	\$11,646,481

See accompanying notes to the combining financial statements.

Combining Statement of Plan Net Position for Insurance Fund (in Thousands)
as of June 30, 2016 with Comparative Totals as of June 30, 2015

Assets						2016	2015
	KERS Non Haz	KERS Haz	CERS Non Haz	CERS Haz	SPRS	KRS Total	KRS Total
Cash and Short-Term Investments							
Cash	\$57	\$24	\$55	\$11	\$5	\$152	\$894
Short-Term Investments	24,155	14,571	49,840	30,256	4,579	123,401	99,152
Total Cash and Short Term Investments	24,212	14,595	49,895	30,267	4,584	123,553	100,046
Receivables							
Contributions	12,440	1,574	10,960	5,733	852	31,559	34,667
Investment Income	21,631	14,518	63,134	34,850	5,341	139,473	113,310
Note Receivable	-	-	-	-	-	-	141
Total Receivables	34,071	16,092	74,094	40,583	6,193	171,033	148,118
Investments at Fair Value							
Corporate & Government Bonds	57,822	38,411	167,370	92,619	13,980	370,202	1,358,495
Derivatives	728	482	2,105	1,169	176	4,660	2,279
Private Equities	44,584	42,718	223,840	125,025	19,228	455,395	348,915
Absolute Return	65,279	43,319	185,283	103,780	16,243	413,904	463,486
Corporate Stocks	380,170	238,515	1,017,071	558,663	84,447	2,278,866	1,706,982
Real Return	54,252	35,905	157,216	86,894	13,124	347,391	
Real Estate	29,424	22,176	96,158	52,708	8,439	208,905	236,443
Total Investments at Fair Value	632,259	421,526	1,849,043	1,020,858	155,637	4,079,323	4,116,600
Securities Lending Collateral Invested	31,468	20,908	88,990	49,470	7,443	198,279	234,509
Total Assets	722,010	473,121	2,062,022	1,141,178	173,857	4,572,188	4,599,273
Liabilities							
Accounts Payable	141	16	122	64	11	354	2,208
Investment Accounts Payable	22,083	14,800	64,360	35,547	5,454	142,244	115,664
Securities Lending Collateral Obligations	31,468	20,908	88,990	49,470	7,443	198,279	234,509
Total Liabilities	53,692	35,724	153,472	85,081	12,908	340,877	352,381
Total Plan Net Position for Insurance Benefits	\$668,318	\$437,397	\$1,908,550	\$1,056,097	\$160,949	\$4,231,311	\$4,246,892

See accompanying notes to the combining financial statements.

"The displayed market values include investable assets held by each System, and its associated contributions, payables, and equipment and intangible assets; unlike those found in the Investment Section (pages 116-119), which include only those investable assets held by each System."

Combining Statement of Changes in Plan Net Position for Insurance Fund (in Thousands)
for the fiscal year ended June 30, 2016 with Comparative Totals for the fiscal year ended June 30, 2015

Additions						2016	2015
	KERS Non Haz	KERS Haz	CERS Non Haz	CERS Haz	SPRS	KRS Total	KRS Total
Employers' Contributions	\$131,935	\$15,929	\$108,269	\$66,757	\$10,228	\$333,118	\$343,604
Premiums Received from Retirees	240	(13)	629	(106)	(29)	721	879
Retired Reemployed Healthcare (HBI)	3,880	837	3,567	862	9	9,155	8,822
Total Contributions	136,055	16,753	112,465	67,513	10,208	342,994	353,305
Investment Income							
From Investing Activities							
↘ Net Depreciation in FV (Appreciation)	(12,720)	(5,911)	(21,498)	(9,667)	(1,747)	(51,543)	3,890
↘ Interest/Dividends	12,142	8,187	36,102	19,746	3,043	79,220	99,338
↘ Total Investing Activities Income (Loss)	(578)	2,276	14,604	10,079	1,296	27,677	103,228
↘ Investment Expense	3,528	3,290	16,592	9,287	1,392	34,089	27,984
Net Income from Investing Activities	(4,106)	(1,014)	(1,988)	792	(96)	(6,412)	75,244
From Securities Lending Activities							
↘ Securities Lending Income	248	164	702	384	58	1,556	993
From Securities Lending Expense							
↘ Security Borrower Rebates (Income)	10	9	36	19	2	76	(336)
↘ Security Lending Agent Fees	36	23	100	55	8	222	155
Net Income from Securities Lending Activities	202	132	566	310	48	1,258	1,174
Total Net Investment Income (Loss)	(3,904)	(882)	(1,422)	1,102	(48)	(5,154)	76,418
Total Additions	132,151	15,871	111,043	68,615	10,160	337,840	429,723
Deductions							
Healthcare Premiums Subsidies	126,550	17,439	118,603	68,518	13,836	344,946	328,923
Administrative Fees	821	97	715	343	62	2,038	2,180
Excise Tax	6	-	11	-	-	17	9
Self Funding Insurance Costs	2,095	51	4,110	137	27	6,420	6,121
Total Deductions	129,472	17,587	123,439	68,998	13,925	353,421	337,233
Net Increase (Decrease) in Plan Net Position	2,679	(1,716)	(12,396)	(383)	(3,765)	(15,581)	92,490
Total Plan Net Position for Insurance Benefits							
Beginning of Year	665,639	439,113	1,920,946	1,056,480	164,714	4,246,892	4,154,402
End of Year	\$668,318	\$437,397	\$1,908,550	\$1,056,097	\$160,949	\$4,231,311	\$4,246,892

See accompanying notes to the combining financial statements.

NOTE A. Summary of Significant Accounting Policies

This summary of significant accounting policies of the Kentucky Retirement Systems (KRS) is presented to assist in understanding KRS' combining financial statements. The combining financial statements and notes are representations of KRS' management, which is responsible for their integrity and objectivity. These accounting policies conform to accounting principles generally accepted in the United States of America (GAAP) and have been consistently applied in the preparation of the combining financial statements.

Organization

Under the provisions of Kentucky Revised Statute Section 61.645, the Board of Trustees (the Board) of KRS administers the Kentucky Employees Retirement System (KERS), County Employees Retirement System (CERS), and State Police Retirement System (SPRS). Although the assets of the systems are invested as a whole, each system's assets are used only for the payment of benefits to the members of that plan, and a pro rata share of administrative costs, in accordance with the provisions of Kentucky Revised Statute Sections 16.555, 61.570, and 78.630.

On June 17, 2016, the board was changed by Executive Order to include ten governor appointees and seven elected member. See Note V. for further detail regarding the governing reorganization.

Under the provisions of Kentucky Revised Statute Section 61.701, the Board of KRS administers the Kentucky Retirement Systems Insurance Fund. The statutes provide for a single insurance fund to provide group hospital and medical benefits to retirees drawing a benefit from the three pension funds administered by KRS: (1) KERS; (2) CERS; and (3) SPRS. The assets of the insurance fund are invested as a whole. The following notes apply to the various funds administered by KRS.

Basis of Accounting

KRS' combining financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which contributions are due. Employer contributions to the plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with terms of the plan. Premium payments are recognized when due and payable in accordance with terms of the plan. Administrative and investment expenses are recognized when incurred.

Method Used to Value Investments

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Short-term investments are reported at cost, which approximates fair value. See Note D for further

discussion of fair value measurements. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the dividend date. Gain (loss) on investments includes KRS' gains and losses on investments bought and sold as well held during the fiscal year.

Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Equipment

Equipment is valued at historical cost and depreciation is computed utilizing the straight-line method over the estimated useful lives of the assets ranging from three to 10 years. Improvements, which increase the useful life of the equipment, are capitalized. Maintenance and repairs are charged to expense as incurred. The capitalization threshold used in fiscal years 2016 and 2015 was \$3,000 (see Note K for further information).

Intangible Assets

Intangible assets, currently computer software, are valued at historical cost and amortization is computed utilizing the straight-line method over the estimated useful lives of the assets which is 10 years. The capitalization threshold used in fiscal years 2016 and 2015 was \$3,000 (see Note L for further information).

Contributions Receivable

Contributions receivable consist of amounts due from employers. The management of KRS considers contributions receivable to be fully collectible; accordingly, no allowance for doubtful accounts is considered necessary. If amounts become uncollectible, they will be charged to operations when that determination is made. If amounts previously written off are collected, they will be credited to income when received.

Investment Income Receivable and Investment Accounts Payable

Due to the timing of receiving partnership financial information, the fair values of the investments in certain limited partnerships have been estimated using the net asset value of the ownership interest in partners' capital as of March 31 of each fiscal year.



KRS management will monitor differences in the fair values of these investments between March 31 and June 30 of each fiscal year, and will disclose any and all material differences.

The Investment Income Receivable and Investment Accounts Payable consist of all buys and sells of securities, as well as all investment related accruals.

In fiscal year 2015, KRS changed the reporting of private equity investment fees from a net basis to a gross basis. KRS made this decision to enhance transparency of the investment fees. Prior to 2015, the majority of KRS' private equity investment fees were netted against investment activity which is the standard used within the private equity sector. KRS' net investment income has always included these fees regardless of the reporting method used.

Payment of Benefits

Benefits are recorded when paid.

Expense Allocation

Administrative expenses of KRS are allocated in proportion to the number of total members participating in each plan and direct investment manager expenses are allocated in proportion to the percentage of investment assets held by each plan.

Component Unit

KRS is a component unit of the Commonwealth of Kentucky (the Commonwealth) for financial reporting purposes.

KERS was created by the Kentucky General Assembly pursuant to the provisions of Kentucky Revised Statute 61.515. CERS was created by the Kentucky General Assembly pursuant to the provisions of Kentucky Revised Statute 78.520. SPRS was created by the Kentucky General Assembly pursuant to the provisions of Kentucky Revised Statute 16.510. The Kentucky Retirement Systems Insurance Fund was created by the Kentucky General Assembly pursuant to the provisions of Kentucky Revised Statute 61.701. KRS' administrative budget is subject to approval by the Kentucky General Assembly. Employer contribution rates for KERS and SPRS are also subject to legislative approval. Employer contribution rates for CERS are determined by the Board of KRS without further legislative review. The methods used to determine the employer rates for KRS are specified in Kentucky Revised Statute 61.565. Employee contribution rates are set by statute and may be changed only by the Kentucky General Assembly.

Recent Accounting Pronouncements

In June 2015, the Governmental Accounting Standards Board (GASB) issued Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. The objective of this Statement is to improve the usefulness of information about postemployment benefits other than pensions (other postemployment benefits or OPEB) included in the general purpose external financial reports of state and local governmental OPEB plans for making decisions and assessing accountability. This Statement replaces Statements No. 43, Financial Reporting for Postemployment Benefit Plans other than Pension Plans, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans. It also includes requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, as amended, Statement 43, and Statement No. 50, Pension Disclosures. This Statement becomes effective for the fiscal year beginning July 1, 2016. KRS is evaluating the requirements of this Statement.

In June 2015, the GASB issued Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. The objective of this Statement is to address accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. For defined benefit OPEB, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed. This Statement becomes effective for the fiscal year beginning July 1, 2017. KRS is evaluating the requirements of this Statement.

Note B. Plan Descriptions & Contribution Information

Membership in each retirement plan consists of the following as of June 30, 2016 and 2015.
Membership Information*

KERS Employees						
Members	2016			2015		
	Non-Haz	Haz	Total	Non-Haz	Haz	Total
Retirees and Beneficiaries Receiving Benefits	40,099	2,739	42,838	38,827	2,575	41,402
Inactive Memberships	43,929	4,067	47,996	42,479	3,761	46,240
Active Plan Members	38,121	3,987	42,108	39,289	3,932	43,221
Total	122,149	10,793	132,942	120,595	10,268	130,863
Number of Participating Employers			358			354

CERS Employees						
Members	2016			2015		
	Non-Haz	Haz	Total	Non-Haz	Haz	Total
Retirees and Beneficiaries Receiving Benefits	51,673	6,834	58,507	48,515	6,389	54,904
Inactive Memberships	75,904	2,309	78,213	72,965	2,142	75,107
Active Plan Members	83,346	9,139	92,485	82,969	9,188	92,157
Total	210,923	18,282	229,205	204,449	17,719	222,168
Number of Participating Employers			1,140			1,136

SPRS Employees		
Members	2016	2015
Retirees and Beneficiaries Receiving Benefits	1,379	1,324
Inactive Memberships	262	257
Active Plan Members	924	940
Total	2,565	2,521
Number of Participating Employers	1	1

* Each person is only counted once in the Membership by System report. A member who has both a membership account and a retired account is included in retired count. Members who have multiple membership accounts are included under the system where they most recently contributed. Members who have more than one retirement account are included in the system with the greatest service credit. If the retired accounts have equal service credit, they are counted first in SPRS, CERS Hazardous, KERS Hazardous, CERS Non-Hazardous, then KERS Non-Hazardous.



**Hospital & Medical Contracts consisted of the following as of June 30, 2016.
Insurance Fund**

System	Single	Couple/ Family	Parent	Medicare Without Prescription	Medicare With Prescription
KERS Non-Hazardous	8,876	656	441	1,286	19,447
KERS Hazardous	663	439	97	66	1,302
CERS Non-Hazardous	8,164	465	235	2,499	23,007
CERS Hazardous	1,595	2,321	378	114	2,969
SPRS	246	447	77	18	850
Total	19,544	4,328	1,228	3,983	47,575

**Hospital & Medical Contracts consisted of the following as of June 30, 2015.
Insurance Fund**

System	Single	Couple/ Family	Parent	Medicare Without Prescription	Medicare With Prescription
KERS Non-Hazardous	9,251	714	452	1,303	18,577
KERS Hazardous	656	448	110	62	1,177
CERS Non-Hazardous	8,098	473	242	2,531	21,520
CERS Hazardous	1,500	2,255	456	107	2,697
SPRS	265	441	81	16	777
Total	19,770	4,331	1,341	4,019	44,748

Medical Insurance coverage is provided based on the member's initial participation date and length of service. Members receive either a percentage or dollar amount for insurance coverage.



Pension Plan Descriptions



KERS - (Kentucky Employees Retirement System)

This system consists of two plans - **Non-Hazardous and Hazardous**. Each plan is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in positions of any state department, board, or agency directed by Executive Order to participate in KERS.



CERS - (County Employees Retirement System)

This system consists of two plans - **Non-Hazardous and Hazardous**. Each plan is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in non-hazardous positions of each participating county, city, and school board, and any additional eligible local agencies electing to participate in CERS.



SPRS - (State Police Retirement System) This system is a single-employer defined benefit pension plan that covers all full-time state troopers employed in positions by the Kentucky State Police.

These systems provide for retirement, disability, and death benefits to system members. Retirement benefits may be extended to beneficiaries of members under certain circumstances. Prior to July 1, 2009, cost-of-living adjustments (COLA) were provided annually equal to the percentage increase in the annual average of the consumer price index for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year.

Cost of Living Adjustment (COLA)

Effective July 1, 2009, and on July 1 of each year thereafter through June 30, 2014, the COLA is limited to 1.5% provided the recipient has been receiving a benefit for at least 12 months prior to the effective date of the COLA. If the recipient has been receiving a benefit for less than 12 months prior to the effective date of the COLA, the increase shall be reduced on a pro-rata basis for each month the recipient has not been receiving benefits in the 12 months preceding the effective date of the COLA. The Kentucky General Assembly reserves the right to suspend or reduce the COLA if, in its judgment, the welfare of the Commonwealth so demands. No COLA has been granted since July 1, 2011.

Contributions



TIER 1:

For the fiscal years ended June 30, 2016 and 2015, Tier 1 plan members who began participating prior to September 1, 2008, were required to contribute 5% Non-Hazardous and 8% Hazardous of their annual creditable compensation. These members were classified in the Tier 1 structure of benefits. The Commonwealth was required to contribute at an actuarially determined rate for KERS and SPRS pensions. Participating employers were required to contribute at an actuarially determined rate for CERS pensions. Per Kentucky Revised Statute Sections (KERS 61.565(3); CERS 78.545(33); SPRS 16.645(18)), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution

rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. However, formal commitment to provide the contributions by the employer is made through the biennial budget for KERS and SPRS.

For the fiscal year ended June 30, 2016, participating employers contributed a percentage of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal years was a percentage of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings. See chart below for the 2015 and 2016 fiscal year percentages.



TIER 2:

Tier 2 members were required to contribute a total of 6% for Non-Hazardous and 9% for Hazardous of their annual creditable compensation, while 1% was deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E). These members were classified in the Tier 2 structure of benefits. Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited. For plan members

who began participating prior to September 1, 2008, their contributions remain at 5% for Non-Hazardous and 8% for Hazardous of their annual creditable compensation.



TIER 3:

Tier 3 members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and a defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Members contribute 5% (Non-Hazardous) and 8% (Hazardous) of their annual creditable compensation, and 1% to the health insurance fund which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. A member's account is credited with a 4% (Non-Hazardous) and 7.5% (Hazardous) employer pay credit. The employer pay credit represents a portion of the employer contribution.

	PENSION				INSURANCE				COMBINED TOTAL			
	Employer Contribution Rates		Actuarially Recommended Rates		Employer Contribution Rates		Actuarially Recommended Rates		Employer Contribution Rates		Actuarially Recommended Rates	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
KERS Non-Hazardous	30.84%	30.84%	30.84%	30.84%	7.93%	7.93%	7.93%	7.93%	38.77%	38.77%	38.77%	38.77%
KERS Hazardous	16.37%	16.37%	16.37%	16.37%	9.97%	9.97%	9.97%	9.97%	26.34%	26.34%	26.34%	26.34%
CERS Non-Hazardous	12.42%	12.75%	12.42%	12.75%	4.64%	4.92%	4.64%	4.92%	17.06%	17.67%	17.06%	17.67%
CERS Hazardous	20.26%	20.73%	20.26%	20.73%	12.69%	13.58%	12.69%	13.58%	32.95%	34.31%	32.95%	34.31%
SPRS	53.90%	53.90%	53.90%	53.90%	21.86%	21.86%	21.86%	21.86%	75.76%	75.76%	75.76%	75.76%



Tier 3 Plan

Interest is paid into the member's account. The account currently earns 4% interest credit on the member's account balance as of June 30 of the previous year. The member's account may be credited with additional interest if the System's five-year average investment returns exceed 4%. If the member was actively employed and participating in the fiscal year, and if the System's average geometric investment return for the previous five years exceeds 4%, then the member's account will be credited with 75% of the amount of the returns over 4% on the account balance as of June 30 of the previous year. It is possible that one system in KRS may get an upside sharing percentage, while one may not.

Upside Sharing Interest

Upside sharing interest is credited to both the member contribution balance and Employer Pay Credit balance. Upside sharing interest is an additional interest credit. Member accounts automatically earn 4% interest annually. The GANIR is calculated on an individual system basis. It is possible that one system may get an upside sharing percentage, and another system would not.

The chart below shows the interest calculated on the members' balances as of June 30, 2015, and credited to each member account on June 30, 2016.

$$(A-B) = C \times 75\% = D \text{ then } B+D = \text{Interest}$$

System	A 5 Year Geometric Average Return	B 2016 Rate	C Upside Sharing Interest	D Interest Rate Earned	Interest Rate Earned (4% + Upside)	Total Interest Credited To Members' Accounts
KERS Non-Hazardous	5.10%	4.00%	1.10%	0.83%	4.83%	\$380,458
KERS Hazardous	5.32%	4.00%	1.32%	0.99%	4.99%	\$110,239
CERS Non-Hazardous	5.16%	4.00%	1.16%	0.87%	4.87%	\$672,783
CERS Hazardous	5.34%	4.00%	1.34%	1.01%	5.01%	\$147,772
SPRS	5.10%	4.00%	1.10%	0.83%	4.83%	\$13,511

This interest was calculated on the members' balances as of June 30, 2015, and credited to each member account on June 30, 2016.

Insurance Plan Description

The Kentucky Retirement Systems Insurance Fund (Insurance Fund) was established to provide hospital and medical insurance for members receiving benefits from KERS, CERS, and SPRS. The Insurance Fund pays a prescribed contribution for whole or partial payment of required premiums to purchase hospital and medical insurance. For the fiscal year ended June 30, 2016, insurance premiums withheld from benefit payments for members of the Systems were \$20.6 million and \$1.2 million for KERS Non-Hazardous and Hazardous, respectively; \$22.6 million and \$2.2 million for CERS Non-Hazardous and Hazardous, respectively; and, \$241,535 for SPRS. For fiscal year 2015, insurance premiums withheld from benefit payments for members of the Systems were \$21.2 million and \$1.1 million for KERS Non-Hazardous and KERS Hazardous, respectively; \$22.6 million and \$1.7 million for CERS Non-Hazardous and CERS Hazardous, respectively, and \$135,018 for SPRS. The Insurance Fund pays the same proportion of hospital and medical insurance premiums for the spouse and dependents of retired hazardous members killed in the line of duty. As of June 30, 2016, the Insurance Fund had 113,280 retirees and beneficiaries for whom benefits were available.

As a result of House Bill 290 (2004 Kentucky General Assembly), medical insurance benefits are calculated differently for members who began participating on, or after, July 1, 2003. Once members reach a minimum

vesting period of 10 years, non-hazardous employees whose participation began on, or after, July 1, 2003, earn \$10 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. Hazardous employees whose participation began on, or after, July 1, 2003 earn \$15 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. Upon death of a hazardous employee, the employee's spouse receives \$10 per month for insurance benefits for each year of the deceased employee's earned hazardous service. This dollar amount is subject to adjustment annually, which is currently 1.5%, based upon Kentucky Revised Statutes. **See chart for current values for Dollar Contribution.** This benefit is not protected under the inviolable contract provisions of Kentucky Revised Statute 16.652, 61.692 and 78.852. The Kentucky General Assembly reserves the right to suspend or reduce this benefit if, in its judgment, the welfare of the Commonwealth so demands.

On August 6, 2012, the Board voted to cease self-funding of healthcare benefits for most KRS Medicare eligible retirees. The Board elected to contract with Humana Insurance Company to provide healthcare benefits to KRS' retirees through a fully-insured Medicare Advantage Plan. The Humana Medicare Advantage Plan became effective January 1, 2013.

The amount of contribution paid by the Insurance Fund is based on years of service. For members participating prior to July 1, 2003, years of service and respective percentages of the maximum contribution are as follows:

Portion Paid by Insurance Fund

Years of Service	Paid by Insurance Fund (%)
20+ years	100%
15-19 years	75%
10-14 years	50%
4-9 years	25%
Less than 4 years	0%

Dollar Contribution for Fiscal Year 2016

For Member participation date began on or after July 1, 2003

System	
KERS Non-Hazardous	\$12.99
KERS Hazardous	\$19.48
CERS Non-Hazardous	\$12.99
CERS Hazardous	\$19.48
SPRS	\$19.48

Note C. Cash, Short-Term Investments & Securities Lending Collateral

The provisions of GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions require that cash received as collateral on securities lending transactions, and investments made with that cash, be reported as assets on the financial statements. In accordance with GASB No. 28, KRS classifies certain other investments, not related to the securities lending program, as short-term. Cash and short-term investments consist of the following at June 30:

Each plan's assets are used only for the payment of benefits to the members of that plan and pro rata share of administrative cost in accordance with the provisions of Kentucky Revised Statute sections 16.555, 61.570, and 78.630.

Cash, Short-Term Investments, & Securities Lending Collateral		
KERS		
Assets	2016	2015
Cash	\$451,041	\$1,900,500
Short-Term Investments	101,227,210	119,412,200
Securities Lending Collateral Invested	150,602,925	180,822,466
KERS Total	\$252,281,176	\$302,135,166
CERS		
Assets	2016	2015
Cash	\$621,299	\$2,138,933
Short-Term Investments	199,113,359	268,159,676
Securities Lending Collateral Invested	490,326,943	547,046,264
CERS Total	\$690,061,601	\$817,344,873
SPRS		
Assets	2016	2015
Cash	\$49,175	\$215,325
Short-Term Investments	5,902,617	7,795,849
Securities Lending Collateral Invested	12,753,573	15,392,066
SPRS Total	\$18,705,365	\$23,403,240
KRS Insurance Fund		
Assets	2016	2015
Cash	\$152,362	\$894,438
Short-Term Investments	123,400,027	99,151,683
Medicare Drug Deposit	-	-
Securities Lending Collateral Invested	198,278,633	234,509,400
Insurance Fund Total	\$321,831,022	\$334,555,251

PRUDENT PERSON RULE -

A legal maxim restricting the discretion in a client's account to investments that a prudent person seeking reasonable income and preservation of capital might buy for his or her own portfolio.

Note D. Investments/GASB

Kentucky Revised Statute 61.650 grants the responsibility for the investment of plan assets to the Board of KRS. The Board has established an Investment Committee which is specifically charged with the oversight and investment of plan assets. The Investment Committee recognizes their duty to invest the funds in accordance with the "Prudent Person Rule" (set forth in Kentucky Revised Statute 61.650) and manage those funds consistent with the long-term nature of the systems. The Investment Committee has adopted a Statement of Investment Policy that contains guidelines and restrictions for deposits and investments. By statute, all investments are to be registered and held in the name of KRS. The Statement of Investment Policy contains the specific guidelines for the investment of pension and insurance assets. Additionally, the Investment Committee establishes specific investment guidelines that are summarized below and are included in the Investment Management Agreement for each investment management firm.

Equity Investments

Investments may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant Exchange Traded Funds' (ETF's) or any other type of security contained in a manager's benchmark. Each individual equity account has a comprehensive set of investment guidelines prepared, which contains a listing of permissible investments, portfolio restrictions and standards of performance.

Fixed Income Investments

The fixed income accounts may include, but are not limited to, the following fixed income securities: U.S. Government and Agency bonds; investment grade U.S. corporate credit; investment grade non-U.S. corporate credit; non-investment grade U.S. corporate credit including both bonds and bank loans; non-investment grade non-U.S. corporate credit including bonds and bank loans; municipal bonds; non-U.S. sovereign debt; mortgages, including residential mortgage backed securities; commercial mortgage backed securities, and whole loans; asset-backed securities and emerging market debt (EMD), including both sovereign EMD and corporate EMD; and, asset class relevant ETF's.

Mortgages

Investment may be made in real estate mortgages on a direct basis or in the form of mortgage pool instruments.

Private Equity/Equity Real Estate/Real Return/Absolute Return Investments - Subject to the specific approval of the Investment Committee of the Board, investments may be made for the purpose of creating a diversified portfolio of alternative investments. The Board may invest in real estate or alternative investments including, but not limited to and without limitation, venture capital, private equity, private placements, real assets and absolute return investments which the Investment Committee believes has excellent potential to generate income and which may have a higher degree of risk.

Cash Equivalent Securities

The following short-term investment vehicles are considered acceptable:

Publicly traded investment grade corporate bonds, variable rate demand notes, government and agency bonds, mortgages, municipal bonds, and collective Short Term Investment Fund's (STIF), money market funds or instruments (including, but not limited to, certificates of deposit, bank notes, deposit notes, bankers' acceptances and commercial paper) and repurchase agreements, relating to the above instruments. Instruments may be selected from among those having an investment grade rating at the time of purchase by at least one recognized bond rating service. In cases where the instrument has a split rating, the lower of the two ratings shall prevail.

All instruments shall have a maturity at the time of purchase that does not exceed two years. Repurchase agreements shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur. Variable rate securities shall be deemed to have a maturity equal to the time left until the next interest rate reset occurs, but in no case will any security have a stated final maturity of more than three years.

KRS' fixed income managers, who utilize cash equivalent securities as an integral part of their investment strategy, are exempt from the permissible investments contained in the preceding paragraph. Permissible short-term investments for fixed income managers shall be included in the investment manager's investment guidelines.

In accordance with GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments, KRS provides this additional disclosure regarding its derivatives. As of June 30, 2016, KRS has the following derivative instruments outstanding:

Derivative Instruments							
Item	Type	Objective	Cost	Notional Cost	Market Value	Terms	Notional Market Value
PENSION:							
A	US Equity Index Futures	Hedge against the drop in equity markets or to equitize cash	N/A	\$6,105,855	\$10,974,393,837	9/16/2016	N/A
B	Fixed Income Securities	Hedge against the sudden or dramatic shifts in interest rates	N/A	(\$8,498,411)	\$10,974,393,837	12/30/2016	N/A
INSURANCE:							
C	US Equity Index Futures	Hedge against risk that interest rates will move in an adverse direction	N/A	\$2,819,233	\$4,317,978,535	9/16/2016	N/A
D	Fixed Income Securities	Hedge against the sudden or dramatic shifts in interest rates	N/A	(\$3,156,723)	\$4,317,978,535	12/30/2016	N/A



Investment Expenses

In accordance with GASB Statement No. 25, Financial Reporting for Defined Pension Benefit Plans and Note Disclosures for Defined Contribution Plans, KRS has exercised professional judgment to report investment expenses. It is not cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses. In fiscal year 2015, KRS changed the reporting of private equity investment fees from a net basis to a gross basis. KRS made this decision to enhance transparency of the investment fees. Prior to 2015, the majority of KRS' private equity investment fees were netted against investment activity which is the standard used within the private equity sector. KRS' net investment income has always included these fees regardless of the reporting method used.

Derivatives

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indices. Investments may be made in derivative securities, or strategies which make use of derivative instruments, only if such investments do not cause the portfolio to be in any way leveraged beyond a 100% invested position.

All derivative instruments have various effective dates and maturity dates.

It is the policy of KRS that investment managers may invest in derivative securities, or strategies which make use of derivative investments, only if such investments do not cause the portfolio to be in any way leveraged beyond a 100% invested position. Examples of such derivatives include, but are not limited to, foreign currency forward contracts, collateralized mortgage obligations, treasury inflation protected securities, futures, options and swaps.

Investments in derivative securities which are subject to large or unanticipated changes in duration or cash flows, such as interest only, principal only, inverse floater, or structured note securities are permitted only to the extent authorized in a contract or an alternative investment offering memorandum or agreement.

Investments in securities such as collateralized mortgage obligations and planned amortization class issues are allowed if, in the judgment of the investment manager, they are not expected to be subject to large or unanticipated changes in duration or cash flows. Investment managers may make use of derivative securities for defensive or hedging purposes. Any derivative security shall be sufficiently liquid that it can be expected to be sold at, or near, its most recently quoted market price.

For accounting and financial reporting purposes, all derivative instruments are considered investment derivative instruments. The derivatives have been segregated on the Combining Statement of Plan Net Position for both Pension and Insurance Funds.



RISKS

Basis Risk:

Derivative instruments A and C expose KRS to basis risk in that the value of the underlying equity index future may decrease in fair value relative to the cash market.

Interest Rate Risk:

Derivative instruments B and D expose KRS to interest rate risk in that changes in interest rates will adversely affect the fair values of KRS' financial instruments.

In June 2011, the GASB issued Statement No. 64, Derivative Instruments: Application of Hedge Accounting Termination Provisions, an Amendment of GASB Statement No. 53. The objective of this Statement is to clarify whether an effective hedging relationship continues and hedge accounting should continue to be applied. Upon the termination of a hedging derivative instrument, hedge accounting should cease and investment income should immediately recognize deferred outflows of resources or deferred inflows of resources. KRS maintains its derivative instruments as investment derivative instruments for all accounting and financial reporting purposes. Therefore, hedge accounting and the related effectiveness testing is not performed.

For accounting and financial reporting purposes, all derivative instruments are considered investment derivative instruments. The derivatives have been segregated on the Combining Statement of Plan Net Position for both Pension and Insurance funds.

Custodial Credit Risk for Deposits

Custodial credit risk for deposits is the risk that in the event of a financial institution failure, KRS' deposits may not be returned. All non-investment related bank balances are held by JP Morgan Chase. All non-investment related bank balances are held in KRS' name and each individual account is insured by the Federal Deposit Insurance Corporation (FDIC). In 2010, Congress passed the Financial Crisis Bill and permanently increased the FDIC deposit insurance coverage to \$250,000. These cash balances are invested daily by the local institution in overnight repurchase agreements which are required by Kentucky Administrative Regulations (200 KAR 14:081) to be collateralized at 102% of the principal amount.

As of June 30, 2016 and 2015, deposits for KRS pension funds were \$5.7 million and \$7.9 million, respectively. None of these balances were exposed to custodial credit risk as they were either insured or collateralized at required levels.

As of June 30, 2016 and 2015, deposits for KRS insurance fund were \$162,409 and \$892,995, respectively. None of these balances were exposed to custodial credit risk as they were either insured or collateralized at required levels.

Custodial Credit Risk for Investments

Custodial credit risk for investments is the risk that in the event of the failure of the counterparty to a transaction, KRS will not be able to recover the value of investments or collateral securities that are in the possession of an outside third party. KRS does not have an explicit policy with regards to Custodial Credit Risk for investments. As of June 30, 2016 and 2015, the following currencies were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in KRS' name. These funds are cash held by KRS' Global Managers and consist of various currencies.

Custodial Credit Risk

Pension Fund	2016	2015
Foreign Currency	\$1,286,190,462	\$1,107,035,125
Insurance Fund		
Foreign Currency	\$513,059,219	\$405,226,690



Pension Funds Investment Summary As of June 30

Type	2016	2015
Fixed Income Securities	\$1,130,595,132	\$2,680,423,440
Short-Term Investments	306,243,184	395,367,724
Equity Securities	5,416,405,517	5,201,092,389
Private Equity Limited Partnerships	1,367,455,984	1,285,572,446
Real Estate	516,267,596	619,177,193
Real Return	902,277,351	-
Derivatives	12,267,866	6,156,232
Absolute Return	1,104,194,904	1,282,165,506
Total	\$10,755,707,534	\$11,469,954,930

Insurance Fund Investment Summary As of June 30

Type	2016	2015
Fixed Income Securities	\$370,201,984	\$1,358,494,646
Short-Term Investments	123,400,027	99,151,683
Equity Securities	2,278,866,187	1,706,981,715
Private Equity Limited Partnerships	455,394,737	348,915,161
Real Estate	208,905,457	236,443,112
Real Return	347,390,860	-
Derivatives	4,659,129	2,278,887
Absolute Return	413,903,171	463,486,065
Total	\$4,202,721,552	\$4,215,751,269

The following table presents the KRS pension funds debt ratings as of June 30, 2016 and 2015:

Pension Funds Debt Securities at Fair Value as of June 30			Insurance Fund Debt Securities at Fair Value as of June 30		
Quality Rating	2016	2015	Quality Rating	2016	2015
AAA	\$86,006,920	\$32,799,444	AAA	\$31,289,627	\$36,199,356
AA+	52,605,953	220,525,397	AA+	19,649,877	30,949,483
AA	11,482,914	19,544,218	AA	4,081,442	5,594,558
AA-	21,615,482	29,318,050	AA-	7,649,085	9,538,154
A-1+	-	546,266	A+	7,553,833	15,158,170
A+	19,591,386	16,624,270	A-1+	-	202,350
A	33,957,742	30,690,688	A	11,668,832	30,746,413
A-	25,109,303	54,108,960	A-	8,752,068	30,022,792
BBB+	46,520,336	65,256,861	BBB+	16,229,373	32,416,543
BBB	50,102,866	69,164,919	BBB	17,770,749	27,473,957
BBB-	60,336,036	125,695,004	BBB-	18,634,688	34,131,541
BB+	64,643,931	147,737,994	BB+	19,898,753	34,246,856
BB	65,913,438	124,243,472	BB	18,098,149	27,533,223
BB-	63,249,470	101,087,356	BB-	18,819,867	26,031,520
B+	73,861,004	147,998,684	B+	20,603,493	30,210,910
B	54,209,825	120,008,446	B	17,158,409	28,480,371
B-	36,620,111	91,895,479	B-	9,418,206	15,454,963
CCC+	19,077,470	45,867,312	CC	748,501	572,136
CCC	4,594,360	10,687,090	CCC	1,199,449	941,558
CCC-	1,596,538	3,151,024	CCC+	5,524,662	10,077,032
CC	2,109,047	2,560,088	CCC-	65,000	221,552
D	5,403,526	3,881,933	D	2,034,383	753,803
NR	130,560,323	778,261,251	NR	45,390,901	570,268,422
Total Credit Risk Debt Securities	\$929,167,981	\$2,241,654,206	Total Credit Risk Debt Securities	\$302,239,347	\$997,225,663
Government Agencies	3,454,645	2,310,824	Government Agencies	1,184,725	3,248,856
Government Mortgage-Backed Securities (GNMA)	84,497,645	234,372,835	Government Mortgage-Backed Securities (GNMA)	28,514,083	113,157,827
Government Issued Commercial Mortgage Backed	7,692,825	4,504,823	Government Issued Commercial Mortgage Backed	2,461,840	2,633,272
Government Bonds	105,782,036	146,629,121	Government Bonds	35,801,989	121,740,145
Indexed Linked Bonds	-	50,951,631	Indexed Linked Bonds	-	120,488,883
Total Debt Securities	\$1,130,595,132	\$2,680,423,440	Total Debt Securities	\$370,201,984	\$1,358,494,646

Pension Fund Securities At both June 30, 2016 and 2015, the weighted average quality rating of the pension fund debt securities portfolio was AA+. As of June 30, 2016 and 2015, the KRS pension portfolio had \$521,839,042 and \$1,577,380,129, respectively, in debt securities rated below BBB-. The government agencies in which KRS is invested are Fannie Mae and the Federal Home Loan Bank, whose credit ratings are AA+.

Insurance Fund Securities As a result of the most recently approved Asset/Liability Modeling Study, the investment staff began to diversify the insurance fixed income allocation to mirror that of the pension funds. As part of this process, the Treasury Inflation Protected Securities (TIPS) allocation (previously the only fixed income expense within the insurance portfolio) was moved to the newly created Real Return Asset Class. The government agencies in which KRS is invested are Fannie Mae and the Federal Home Loan Bank, whose credit ratings are AA+.

Kentucky Revised Statute 61.650 grants the responsibility for the investment of plan assets to the board of KRS. The Board has established an investment committee which is specifically charged with the oversight and investment of plan assets.

Credit Risk Debt Securities

Credit Risk of Debt Securities - Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The debt security portfolios are managed by the Investment Division staff and by external investment management firms. All portfolio managers are required by the Statement of Investment Policy to maintain diversified portfolios. Each portfolio is also required to be in compliance with risk management guidelines that are assigned to them based upon the portfolio's specific mandate. In total, the pension and insurance funds debt securities portfolios are managed using the following guidelines adopted by the Board of KRS:

- » Bonds, notes or other obligations issued or guaranteed by the U.S. Government, its agencies or instrumentalities are permissible investments and may be held without restrictions.
- » Fixed income investments will be similar in type to those securities found in the KRS fixed income benchmarks and the characteristics of the KRS fixed income portfolio will be similar to the KRS fixed income benchmarks.
- » The duration of the total fixed income portfolio shall not deviate from the KRS Fixed Income by more than 25%.
- » The duration of the TIPS portfolio shall not deviate from the KRS Fixed Income Index by more than 10%.
- » The amount invested in the debt of a single corporation shall not exceed 5% of the total market value of KRS' assets.
- » No public fixed income manager shall invest more than 5% of the market value of assets held in any single issue short-term instrument, with the exception of U.S. Government issued, guaranteed or agency obligations.
- » The amount invested in SEC Rule 144a securities shall not exceed 7.5% of the market value of the aggregate market value of KRS' core fixed income investments.

Concentration of Credit Risk Debt Securities

Concentration of credit risk is the risk of loss attributed to the magnitude of an entity's exposure in a single issuer.

The total debt securities portfolio is managed using the following general guidelines adopted by the Board of KRS:

- » Bonds, notes or other obligations issued or guaranteed by the U.S. Government, its agencies or instrumentalities are permissible investments and may be held without restrictions.
- » Debt obligations of any single U.S. Corporation shall be limited to a maximum of 5% of the total portfolio at market value.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration measures the sensitivity of the market prices of fixed income securities to changes in the yield curve. Duration is measured using two methodologies: effective and modified duration. Effective duration uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price and makes adjustments for any bond features that would retire the bonds prior to maturity. The modified duration, similar to effective duration, measures the sensitivity of the market prices to changes in the yield curve, but does not assume the securities will be called prior to maturity.

The KRS pension fund benchmarks its fixed income securities portfolio to a 50/50 blend of the Barclays U.S. Universal Index and the Barclays U.S. High Yield Index. As of June 30, 2016 and 2015, the modified duration of the KRS pension fund fixed income benchmark was 4.71 and 5.75, respectively. At the same points in time, the modified duration of the KRS pension fund fixed income securities portfolio was 5.61 and 4.26, respectively.

The KRS insurance fund benchmarks its fixed income securities portfolio to a 50/50 blend of the Barclays U.S. Universal Index and the Barclays U.S. High Yield Index. As of June 30, 2016 and 2015, the modified duration of the KRS insurance fund fixed income benchmark was 4.71 and 5.74, respectively. At the same points in time, the modified duration of the KRS insurance fund fixed income securities portfolio was 5.51 and 3.38, respectively.

KRS Pension Funds Interest Rate Risk As of June 30, 2016 and 2015:

Pension Funds Interest Rate Risk				
Type	2016	Weighted Average Modified Duration	2015	Weighted Average Modified Duration
Asset Backed Securities	\$85,826,862	5.72	\$80,682,959	6.00
Bank Loans	130,653,480	6.89	333,921,080	5.39
Collateralized Bonds	18,041,017	3.58	23,939,151	4.33
Commercial Mortgage Backed Securities	64,195,499	3.07	51,075,672	2.77
Corporate Bonds - Industrial	434,383,557	5.92	577,639,674	6.23
Corporate Bonds - Utilities	32,233,991	6.94	135,127,865	6.94
Government Agencies	14,953,503	3.92	71,507,431	6.32
Government Bonds	10,159,793	10.58	87,724,008	6.90
Government Mortgage Backed Securities	86,491,191	3.25	387,421,860	3.63
Municipal Bonds	49,941,575	6.45	20,440,231	8.63
Supranational Bonds	14,676,180	3.13	2,125,860	1.77
Treasuries	173,967,110	5.42	524,545,015	3.26
Swaps	-	-	37,213,933	0.01
Mutual Funds	-	-	329,645,324	-
Other	15,071,374	8.86	17,413,377	0.27
Total	\$1,130,595,132	5.61	\$2,680,423,440	4.26

KRS Insurance Fund Interest Rate Risk As of June 30, 2016 and 2015:

Insurance Fund Interest Rate Risk				
Type	2016	Weighted Average Modified Duration	2015	Weighted Average Modified Duration
Asset Backed Securities	28,848,599	5.02	\$46,009,988	5.33
Bank Loans	47,825,672	7.38	122,994,721	5.33
Collateralized Bonds	6,181,112	3.74	8,661,856	2.86
Commercial Mortgage Backed Securities	23,688,347	2.68	23,913,669	1.82
Corporate Bonds - Industrial	124,326,615	5.95	165,550,838	6.10
Corporate Bonds - Utilities	10,221,840	7.18	33,246,797	7.45
Government Agencies	4,991,646	4.16	15,280,118	6.50
Government Bonds	3,893,414	10.42	7,042,551	10.18
Government Mortgage Backed Securities	29,228,940	3.17	113,157,827	5.20
Municipal/Provincial Bonds	19,211,704	6.18	15,864,191	5.65
Supranational Bonds	5,657,243	3.08	5,272,325	3.38
Treasuries	61,156,679	5.29	276,548,407	5.32
Swaps	-	-	407,197,975	0.01
Mutual Funds	-	-	107,920,082	-
Other	4,970,173	5.89	9,833,301	2.79
Total	\$370,201,984	5.51	\$1,358,494,646	3.38

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the value of a non-U.S. dollar based investment or deposit within the KRS portfolio. KRS' currency risk exposure, or exchange rate risk, primarily resides with KRS' international equity holdings, but also affects other asset classes. KRS does not have a formal policy to limit foreign currency risk; however, some individual managers are given the latitude to hedge some currency exposures.

All foreign currency transactions are classified as Short-Term Investments.

All gains and losses associated with these transactions are recorded in the *Net Appreciation (Depreciation) in the Fair Value of Investments* on the combining financial statements.



The following tables present KRS' exposure to foreign currency risk as of June 30, 2016 and 2015:

Pension Funds Investments at Fair Value as of June 30, 2016 & 2015		
Foreign Equities	2016	2015
Australian Dollar	\$78,593,286	\$45,524,360
Brazilian Real	4,760,264	10,038,834
British Pound Sterling	280,518,178	230,990,599
Canadian Dollar	61,297,521	31,007,486
Chilean Peso	5,195,087	1,615,419
Columbian Peso	-	70,063
Danish Krone	33,033,338	30,880,488
Egyptian Pound	977,744	1,265,953
Euro	341,558,953	276,713,338
German Mark	-	209,275
Hong Kong Dollar	60,936,946	50,442,004
Hungarian Forint	-	2,043,077
Indian Rupee	6,604,336	4,715,132
Indonesian Rupiah	20,838,490	20,221,999
Israeli Shekel	7,193,594	5,856,040
Japanese Yen	202,208,317	165,124,397
Malaysian Ringgit	6,341,219	-
Mexican Peso	23,129,878	13,703,693
New Zealand Dollar	46,924,432	8,083,459
Norwegian Krone	30,363,379	22,454,960
Philippine Peso	9,651,420	11,219,442
Polish Zloty	826	12,073
Singapore Dollar	32,414,224	21,281,454
South African Rand	4,163,057	3,784,217
South Korean Won	34,652,485	20,624,933
Swedish Krona	36,933,026	30,324,551
Swiss Franc	48,606,745	75,604,802
Taiwan Dollar	12,983,328	5,988,056
Thai Bhat	8,390,986	14,259,536
Turkish Lira	9,982,390	3,517,813
Total Securities Subject to Foreign Currency Risk	\$1,408,253,449	\$1,107,577,453
US Dollars	9,347,454,085	10,362,377,477
Total Investment Securities	\$10,755,707,534	\$11,469,954,930

Insurance Fund Investments at Fair Value as of June 30, 2016 & 2015

Foreign Equities	2016	2015
Australian Dollar	\$29,491,913	\$16,529,875
Brazilian Real	1,739,994	3,478,125
British Pound Sterling	115,192,745	85,519,211
Canadian Dollar	25,186,673	11,027,509
Chilean Peso	2,512,823	562,254
Danish Krone	12,353,869	11,219,733
Egyptian Pound	338,920	438,824
Euro	138,440,564	101,969,846
Hong Kong Dollar	23,281,445	18,617,003
Hungarian Forint	8	690,197
Indian Rupee	2,763,003	1,767,719
Indonesian Rupiah	8,253,105	7,140,659
Israeli Shekel	3,139,611	2,247,542
Japanese Yen	79,845,758	59,941,785
Malaysian Ringgit	2,249,962	-
Mexican Peso	8,929,122	4,647,950
New Taiwan Dollar	5,732,370	2,323,811
New Zealand Dollar	17,584,209	3,039,386
Norwegian Krone	11,478,621	8,182,370
Philippine Peso	3,689,967	4,068,766
Polish Zloty	435	5,570
Singapore Dollar	13,069,717	7,674,464
South African Rand	-	1,380,066
South Korean Won	15,212,664	7,532,005
Swedish Krona	14,230,187	11,203,658
Swiss Franc	18,618,020	27,719,374
Thai Bhat	3,559,025	5,246,060
Turkish Lira	4,427,570	1,216,790
Total Securities Subject to Foreign Currency Risk	\$561,322,300	\$405,390,552
US Dollars	3,641,399,252	3,810,360,717
Total Investment Securities	\$4,202,721,552	\$4,215,751,269

GASB 72

In accordance with GASB Statement No. 72, Fair Value Measurement and Application, KRS provides this additional disclosure regarding the fair value of its pension and insurance investments. KRS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

KRS had the following recurring Pension Funds' Fair Value measurements as of June 30, 2016:

Investments and Derivatives Measured at Fair Value (\$ in millions)	Value as of June 30, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and Cash Equivalents	\$300,578,203	\$758,936	\$191,624,753	\$108,194,514
Convertible Securities	24,621,656	14,426,398	10,195,258	-
Equity	5,583,565,055	4,321,524,205	-	1,262,040,850
Fixed Income Securities	1,300,762,010	242,628,527	974,953,469	83,180,014
Futures Contracts	(17,268)	(17,268)	-	-
Other	317,862,013	317,862,013	-	-
Preferred Securities	77,499,123	13,896,325	63,602,798	-
Alternative Investment	402,247,618	-	-	402,247,618
Natural Resources	12,827,886	-	-	12,827,886
Private Equity	2,219,493,642	-	-	2,219,493,642
Real Estate	516,267,596	-	-	516,267,596
Totals	\$10,755,707,534	\$4,911,079,136	\$1,240,376,278	\$4,604,252,120

KRS had the following recurring Insurance Fund's Fair Value measurements as of June 30, 2016:

Cash and Cash Equivalents	\$124,634,718	\$274,615	\$78,579,998	\$45,780,105
Convertible Securities	9,843,774	5,859,651	3,984,123	-
Equity	1,863,358,777	1,805,230,510	-	58,128,267
Fixed Income Securities	928,819,057	107,506,185	310,552,640	510,760,232
Futures Contracts	(14,704)	(14,704)	-	-
Other	104,062,433	104,062,433	-	-
Preferred Securities	30,857,897	5,611,497	25,246,400	-
Alternative Investment	132,377,484	-	-	132,377,484
Natural Resources	5,699,154	-	-	5,699,154
Private Equity	794,177,505	-	-	794,177,505
Real Estate	208,905,457	-	-	208,905,457
Totals	4,202,721,552	2,028,530,187	418,363,161	1,755,828,204

KRS defined the Fair Value Hierarchy and Levels as follows:

Level 1 – Quoted prices (unadjusted) in an active market for identical assets or liabilities that KRS has the ability to access at the measurement date (e.g., prices derived from NYSE, NASDAQ, Chicago Board of Trade, and Pink Sheets).

Level 2 – Inputs other than quoted market prices included in Level 1 that are directly or indirectly observable for the asset or liability (e.g., matrix pricing, market corroborated pricing and inputs such as yield curves and indices).

Level 3 – Unobservable inputs for the asset or liability used to measure to fair value that rely on KRS' own assumptions about the market participant's assumptions that may be used in pricing the asset or liability (e.g., investment manager pricing for private placements, private equities, hedge funds, etc.).

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using quoted prices (unadjusted) in an active market for identical assets or liabilities that KRS has the ability to access at the measurement date. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Commercial and residential mortgage backed securities, private equity, and real estate classified in Level 3 are valued on KRS' own assumptions about the market participant's assumptions that may be used in pricing the asset or liability.

Note E.

CM Growth Capital Partners, LLP

On August 11, 2014, and May 1, 2015, KRS issued two promissory notes to CM Growth Capital Partners, LLP, (CM) in the amounts of \$1,300,000 and \$105,208, respectively. These transactions were approved by the Investment Committee. These notes were issued to provide working capital to CM (formerly Camelot). The interest rate assigned to the notes was 17.5% compounded quarterly. The maturity date of the two notes was January 24, 2016; on August 17, 2015, the two notes were paid in full along with accrued interest. The principal amount at June 30, 2015, was \$1,405,208 and the accrued interest due was \$282,142, which totaled \$1,687,350. The note receivable and accrued interest has been allocated among the plans.

Note F. Securities Lending Transactions

Kentucky Revised Statutes Sections 61.650 and 386.020(2) permit the Pension and Insurance Funds to lend their securities to broker-dealers and other entities. The borrowers of the securities agree to transfer to the Funds' custodial banks either cash collateral or other securities with an initial fair value of 102% or 105% of the value of the borrowed securities. The borrowers of the securities simultaneously agree to return the borrowed securities in exchange for the collateral at a later date. Securities lent for cash collateral are presented as unclassified above in the schedule of custodial credit risk; securities lent for securities collateral are classified according to the category for the securities loaned. The types of securities lent include U.S. Treasuries, U.S. Agencies, U.S. Corporate Bonds, U.S. Equities, Global Fixed Income Securities, and Global Equities Securities.

The Statement of Investment Policy does not address any restrictions on the amount of loans that can be made. At June 30, 2015, KRS had no credit risk exposure to borrowers because the collateral amounts received exceeded the amounts out on loan. The contracts with the custodial banks require them to indemnify KRS if the borrowers fail to return the securities and one or both of the custodial banks have failed to live up to their contractual responsibilities relating to the lending of securities.

All securities loans can be terminated on demand by either party to the transaction. Deutsche Bank invests cash collateral as permitted by state statute and Board policy. The agent of the Funds cannot pledge or sell collateral securities received unless the borrower defaults. KRS maintains a conservative approach to investing the cash collateral with Deutsche Bank, emphasizing capital preservation, liquidity, and credit quality.

As of June 30, 2016, the fair value of the pension funds' and insurance fund's securities lending capital invested/obligations totaled \$653.7 million and \$198.3 million, respectively.

Note G. Risk of Loss

KRS is exposed to various risks of loss related to torts; thefts of, damage to, and destruction of assets; errors and omissions; injuries to employees; and, natural disasters. Under the provisions of the Kentucky Revised Statutes, the Kentucky Board of Claims is vested with full power and authority to investigate, hear proof, and to compensate persons for damages sustained to either person or property as a result of negligence of the agency or any of its employees. Awards are limited to \$200,000 for a single claim and \$350,000 in aggregate per occurrence. Awards and a pro rata share of the operating cost of the Board of Claims are paid from the fund of the agency having a claim or claims before the Board of Claims.

Claims against the Board of KRS, or any of its staff as a result of an actual or alleged breach of fiduciary duty, are insured with a commercial insurance policy. Coverage provided is limited to \$5,000,000 with a self-insured retention of \$250,000 for each claim. Defense costs incurred in defending such claims will be paid by the insurance company. However, the total defense cost and claims paid shall not exceed the total aggregate coverage of the policy. The aggregate limit for all loss is \$5,000,000, and the HIPAA and PPACA fines and penalties sub-limit is \$1,500,000.

Claims for job-related illnesses or injuries to employees are insured by the state's self-insured workers' compensation program. Payments approved by the program

COVERED PAYROLL-

The employee payroll that is subject to Pension Contributions Withholding.

are not subject to maximum limitations. A claimant may receive reimbursement for all medical expenses related to the illness or injury and up to 66.67% of wages for temporary disability. Each agency pays premiums based on fund reserves and payroll. Settlements did not exceed insurance coverage in any of the past three fiscal years. Thus, no secondary insurance had to be utilized. There were no claims which were appealed to the Kentucky Workers' Compensation Board.

Note H. Contingencies

In the normal course of business, KRS is involved in litigation concerning the right of participants, or their beneficiaries, to receive benefits. KRS does not anticipate any material losses as a result of the contingent liabilities.

Note I. Income Tax Status

The Internal Revenue Service has ruled that KRS qualifies under Section 401(a) of the Internal Revenue Code and is, generally, not subject to tax. KRS is subject to income tax on any unrelated business income; however, KRS had no unrelated business income in fiscal years 2016 and 2015.

Note J. Defined Benefit Pension Plan

All eligible employees of KRS participate in KERS (Non-Hazardous), a cost-sharing, multiple-employer defined pension plan that covers all regular full-time employees in non-hazardous positions of any Kentucky State Department, Board or Agency directed by Executive Order to participate in the system. The plan provides for retirement, disability and death benefits to plan members. Plan benefits are extended to beneficiaries of plan members under certain circumstances. Tier 1 and Tier 3 Plan members contributed 5% of creditable compensation for the periods ended June 30, 2016, 2015, and 2014. Tier 2 Plan members contributed 6% of creditable compensation for the periods ended June 30, 2016, 2015, and 2014.

The chart below includes the covered payroll and contribution amounts for KRS for the three periods ended June 30 included in this discussion.

Payroll & Contributions

	2016	2015	2014
Covered Payroll	\$ 14,579,042	\$14,137,788	\$ 13,916,055
Required Employer Contributions	5,652,295	\$5,481,221	\$3,722,937
Employer Percentage Contributed	100%	100%	100%



Note K. Equipment

Equipment Expenses (as of June 30)

Expense	2016	2015
Equipment At-Cost	2,819,040	2,577,051
Less Accumulated Depreciation	(2,441,324)	(2,391,644)
Total	377,716	\$185,407

Depreciation expense for the fiscal years ended June 30, 2016 and 2015 was \$49,680 and \$43,589, respectively.

Note L. Intangible Assets

The provisions of GASB Statement No. 51, Accounting and Financial Reporting for Intangible Assets, require that intangible assets be recognized in the Combining Statement of Plan Net Position only if they are considered identifiable. In accordance with GASB No. 51, KRS has capitalized software costs as indicated below for the Strategic Technology Advancements for the Retirement of Tomorrow (START) project.

Software Expenses (as of June 30)

Expense	2016	2015
Software At-Cost	17,300,826	17,300,826
Less Accumulated Amortization	(9,448,411)	(7,561,348)
Total	\$ 7,852,415	\$9,739,478

Amortization expense for the fiscal years ended June 30, 2016 and 2015 was \$1.9 million and \$1.6 million, respectively.

INTANGIBLE ASSET-

An asset that is not physical in nature. Corporate intellectual property, items such as patents, trademarks, copyrights, business methodologies, goodwill and brand recognition, are all common intangible assets in today's marketplace.

ACTUARIAL VALUATION -

A type of appraisal which requires making economic and demographic assumptions in order to estimate future liabilities. The assumptions are typically based on a mix of statistical studies and experienced judgment.

Note M. Actuarial Valuation

The following details significant actuarial information and assumptions utilized in determining the unfunded (overfunded) actuarial accrued liabilities for both Pension and Insurance Funds:

Unfunded (Overfunded) Actuarial Accrued Liability

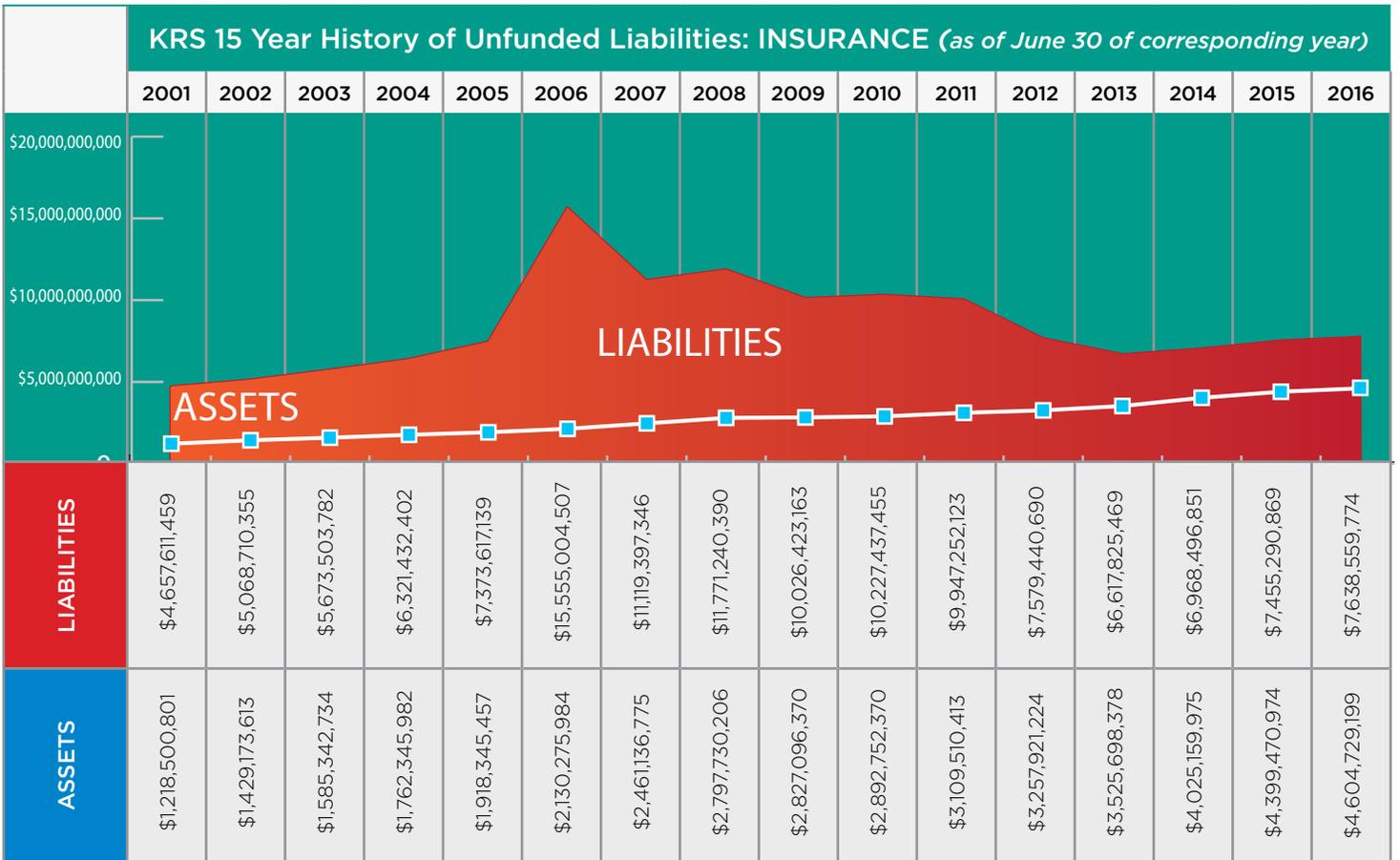
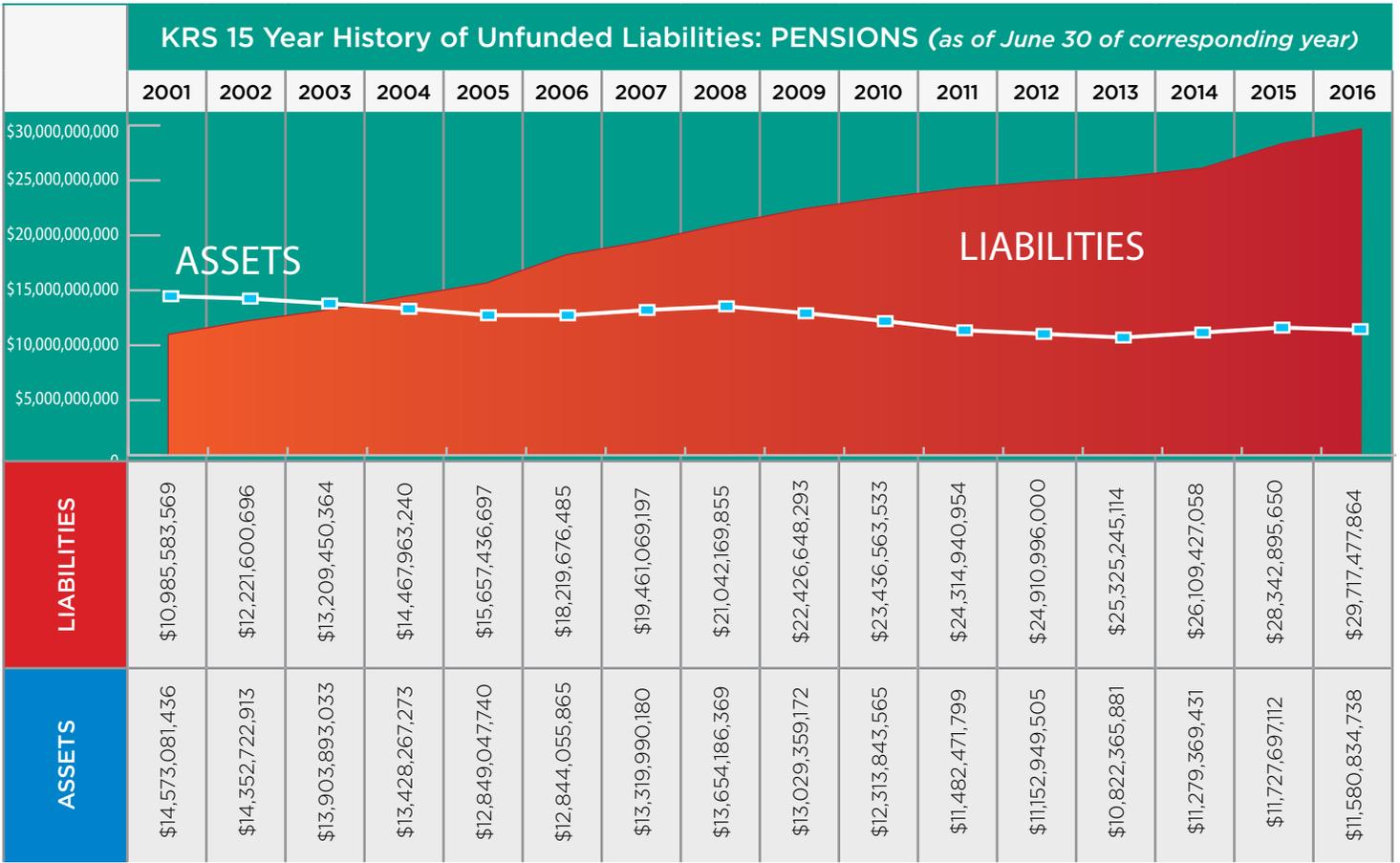
KRS Pension and Insurance Funds had the following Unfunded (Overfunded) Actuarial Accrued Liabilities as of June 30:

System	Actuarial Accrued Liabilities as of June 30		Pension Funds - Unfunded		Insurance Fund - Unfunded (Overfunded)	
	2016	2015	2016	2015	2016	2015
KERS Non-Hazardous	\$11,112,411,929	\$10,008,682,909	\$1,713,407,904	\$1,718,686,990		
KERS Hazardous	377,218,942	338,745,630	(95,414,943)	(76,609,957)		
CERS Non-Hazardous	4,541,084,447	4,265,476,908	908,310,062	910,370,977		
CERS Hazardous	1,565,337,050	1,516,524,591	423,033,984	416,308,115		
SPRS	540,592,758	485,768,500	84,493,568	87,063,770		
Total Funds	\$18,136,645,126	\$16,615,198,538	\$3,033,830,575	\$3,055,819,895		



Insurance Fund Schedule of Funding Progress

System	Actuarial Value of Assets	AAL Entry Age Normal	Funded	Covered Payroll	Unfunded as a % of Covered Payroll
KERS Non-Hazardous	\$743,270,060	\$2,456,677,964	30.3%	1,529,248,873	112.0%
KERS Hazardous	473,160,173	377,745,230	125.3%	147,563,457	(64.7%)
CERS Non-Hazardous	2,079,811,055	2,988,121,117	69.6%	2,352,761,794	38.6%
CERS Hazardous	1,135,784,220	1,558,818,204	72.9%	492,850,521	85.8%
SPRS	172,703,691	257,197,259	67.1%	45,551,469	185.5%
Total Insurance Fund	\$4,604,729,199	\$7,638,559,774	60.3%	\$4,567,976,114	66.4%



The objective of GASB 67 was to improve financial reporting by state and local governmental pension plans. The statement required defined benefit pension plans to present two financial statements, a statement of fiduciary net position and a statement of changes in fiduciary net position. In addition, the statement required that notes to the financial statements include descriptive information, such as the types of benefits provided, the classes of plan members covered, and the composition of the pension plans board, among other detailed requirements.

The provisions of GASB Statement No. 67, Financial Reporting for Pension Plans, were issued in June 2012. This Statement replaces the requirements of Statements No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, and No. 50, Pension Disclosures, as they relate to pension plans that are administered through trusts or equivalent arrangements that meet that criteria. The provisions of that Statement are presented in the table below:

The total pension liability was determined by an actuarial valuation as of June 30, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

- *Inflation 3.25%*
- *Salary increases 4.0%, average, including inflation;*
- *Investment rate of return for KERS Non-Hazardous and SPRS was 6.75%; KERS Hazardous, CERS Non-Hazardous, CERS Hazardous the rate remained at 7.5%, net of pension plan investment expense, including inflation.*

The assumed rate of return decreases for KERS and SPRS were adopted by Board of Trustees on December 3, 2015. The actuarial valuation date upon which the total pension liability was based is June 30, 2015. An expected total pension liability is determined as of June 30, 2016, using standard roll forward techniques. The roll forward calculation adds the annual cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year then applies the expected investment rate of return for the year. The procedure was used to determine the total pension liability as of June 30, 2016.

The mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females). For healthy retired members and beneficiaries, the mortality table used is the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set back one year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set back four years for males) is used for the period after disability retirement. There is some margin in the current mortality tables for possible future improvement in mortality rates and that margin will be reviewed again when the next experience investigation is conducted.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of an actuarial experience study for the period July 1, 2008 – June 30, 2013. The discount rate used to measure the total pension liability for KERS Non-Hazardous and SPRS was 6.75%. KERS Hazardous, CERS Non-Hazardous, CERS Hazardous the rate remained 7.5%. The long-term assumed rate of returned and discount rate were based upon an analysis adopted by the Board of Trustees on December 3, 2015.

The projection of cash flows used to determine the discount rate assumed that local employers would contribute the actuarially determined contribution rate of projected compensation over the remaining 27 year amortization period of the unfunded actuarial accrued liability.

The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for the Systems. The most recent

analysis, performed for the period covering fiscal years 2008 through 2013, is outlined in a report dated December 3, 2015. Several factors are considered in evaluating the long-term rate of return assumption including long-term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed by the investment consultant for each major asset class. These ranges were 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 then adding expected inflation. The assumption is intended to be a long-term assumption and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

The discount rate determination does not use a municipal bond rate. Projected future benefit payments for all current plan members were projected through 2117.

Table Note A: Net Pension Liability					
	KERS		CERS		SPRS
	Non-Hazardous	Hazardous	Non-Hazardous	Hazardous	
Total Pension Liability	\$13,379,781,165	\$919,517,466	\$11,065,012,656	\$3,726,115,488	\$795,421,298
Fiduciary Net Position	1,980,292,118	527,879,431	6,141,394,419	2,010,174,047	218,012,479
Net Pension Liability	11,399,489,047	391,638,035	4,923,618,237	1,715,941,441	577,408,819
Ratio of Fiduciary Net Position to Total Pension Liability	14.87%	57.41%	55.50%	53.95%	27.41%
Inflation	3.25%	3.25%	3.25%	3.25%	3.25%
Salary Increases (average including inflation)	4.0%	4.0%	4.0%	4.0%	4.0%
Investment Rate of Return (Net of Pension Plan Investment Expense including Inflation)	6.75%	7.5%	7.5%	7.5%	6.75%

The Total Pension Liability was determined by an actuarial valuation as of June 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement.

The Net Pension Liability is equal to the Total Pension Liability minus the Fiduciary Net Position. That result as of June 30, 2015, for the plan is presented in the table above (\$ thousands). The Total Pension Liability was determined by an actuarial valuation as of June 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement.

Insurance Fund

The actuarial valuation for the Insurance Fund involves estimates of the value of reported amounts and assumptions about the probability of future events. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Calculations are based on the benefits provided under the terms of the insurance plan in effect at the time of each valuation and on the pattern of sharing costs between the employer and plan members as of the valuation date. Actuarial calculations of the insurance plan reflect a long-term perspective.

The target asset allocation and best estimates of arithmetic nominal rates of return for each major asset class are summarized:

Table Note B: Target Asset Allocation				
Asset Class	KERS Non-Hazardous		KERS Hazardous	
	Target Allocation	Cash Equivalent Long Term Expected Real Rate of Return	Target Allocation	Cash Equivalent Long Term Expected Real Rate of Return
Combined Equity	50%	5.30%	44%	5.4%
Intermediate Duration Fixed Income	11%	1.00%	-	1.5%
Combined Fixed Income	-	-	19%	-
Custom KRS Fixed Income	11%	3.33%	-	3.5%
Real Return (Diversified Inflation Strategies)	-	-	10%	-
Core Real Estate	5%	4.25%	5%	4.5%
Diversified Hedge Funds	10%	4.00%	-	4.25%
Absolute Return (Diversified Hedge Funds)	-	-	10%	-
Private Equity	2%	8.00%	10%	8.5%
Diversified Inflation Strategy	8%	3.15%	-	-
Cash Equivalent	3%	-0.25%	2%	-0.25%
Total	100%		100%	

Asset Class	CERS Non-Hazardous		CERS Hazardous	
	Target Allocation	Cash Equivalent Long Term Expected Real Rate of Return	Target Allocation	Cash Equivalent Long Term Expected Real Rate of Return
Combined Equity	44%	5.4%	44%	5.4%
Combined Fixed Income	19%	1.5%	19%	1.5%
Real Return (Diversified Inflation Strategies)	10%	3.5%	10%	3.5%
Real Estate	5%	4.5%	5%	4.5%
Absolute Return (Diversified Hedge Funds)	10%	4.25%	10%	4.25%
Private Equity	10%	8.5%	10%	8.5%
Cash Equivalent	2%	-0.25%	2%	-0.25%
Total	100%		100%	

Asset Class	SPRS	
	Target Allocation	Cash Equivalent Long Term Expected Real Rate of Return
Global Equity	54%	5.30%
Intermediate Duration Fixed Income	9%	1.00%
Custom KRS Fixed Income	9%	3.33%
Core Real Estate	5%	4.25%
Diversified Hedge Funds	10%	4.00%
Private Equity	2%	8.00%
Diversified Inflation Strategy	8%	3.15%
Cash Equivalent	3%	-0.25%
Total	100%	



The projection of cash flows used to determine the discount rate assumed that the employer would contribute the actuarially determined contribution rate of projected compensation. The remaining amortization period of the unfunded actuarial accrued liability is 27 years. Once the unfunded actuarial accrued liability is fully amortized, the employer will only contribute the normal cost rate and the administrative expense rate on the closed payroll for existing members.

The actuarial valuation date upon which the total pension liability was based is June 30, 2015. An expected total pension liability is determined as of June 30, 2016, using standard roll forward techniques. The roll forward calculation adds the annual cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year then applies the expected investment rate of return for the year. The procedure was used to determine the total pension liability as of June 30, 2016.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of an actuarial experience study for the period July 1, 2008 – June 30, 2013. The long term assumed rate of return is based upon an analysis adopted by the Board of Trustees on December 3, 2015. The discount rate used to measure the total pension liability for KERS Non-Hazardous and SPRS was 6.75%. However, for KERS Hazardous, CERS Non-Hazardous, and Hazardous, the discount rate remained at 7.50%.

Net Pension Liability (NPL) - Decrease/Increase			
	1% Decrease	Current Discount Rate	1% Increase
KERS Non-Hazardous	(5.75%)	(6.75%)	(7.75%)
NPL	\$12,842,328,478	\$11,399,489,047	\$10,186,892,118
KERS Hazardous	(6.5%)	(7.5%)	(8.5%)
NPL	492,060,681	391,638,035	307,344,933
CERS Non-Hazardous	(6.5%)	(7.5%)	(8.5%)
NPL	6,135,625,606	4,923,618,237	3,884,686,628
CERS Hazardous	(6.5%)	(7.5%)	(8.5%)
NPL	2,155,722,903	1,715,941,441	1,353,197,862
SPRS	(5.75%)	(6.75%)	(7.75%)
NPL	665,253,333	577,408,819	503,953,106

Insurance Fund Valuation ¹ (Valuation Date June 30, 2016)

	Non-Haz	Haz
Actuarial Cost Method	Entry Age	Entry Age
Amortization Method	Level Percent Closed	Level Percent Closed
Remaining Amortization Period	27 Years	27 Years
Asset Valuation Method	Five-year Smoothed Market	Five-year Smoothed Market
Medical Trend Assumption (Pre-Medicare)	7.5-5.0%	7.5-5.0%
Medical Trend Assumption (Post-Medicare)	5.5-5.0%	5.5-5.0%
Year of Ultimate Trend	2021	2021
Dollar Contribution Trend	1.50%	1.50%
Actuarial Assumptions		
Investment Rate of Return	7.50%	7.50%
↘ Includes Price Inflation at	3.25%	3.25%
Salary Increase	4.0%, average, including Inflation	

¹The actuarial valuation for the Insurance Fund involves estimates of the value of reported amounts and assumptions about the probability of future events. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Calculations are based on the benefits provided under the terms of the insurance plan in effect at the time of each valuation and on the pattern of sharing costs between the employer and plan members as of the valuation date. Actuarial calculations of the insurance plan reflect a long-term perspective.





Note N. Pension Legislation

House Bill 62

During its 2015 regular session, the Kentucky General Assembly enacted House Bill 62, which created Kentucky Revised Statute 61.522. Kentucky Revised Statute 61.522 established a path for participating agencies to voluntarily cease their participation in KERS or CERS by paying their portion of the unfunded liability. Additionally, it authorizes KRS to involuntarily remove certain participating agencies from KERS or CERS. In December 2015 and again in June 2016, KRS published 105 KAR 1:145, an administrative regulation that defined the pension withdrawal process.

Pursuant to Kentucky Revised Statute 61.522 and 105 KAR 1:145, two employers that participate in KERS have sought to end their participation. As of July 1, 2016, the Kentucky Employers Mutual Insurance company (KEMI) and Commonwealth Credit Union (CCU) ceased reporting approximately 500 full-time employees. Once KRS' 2016 annual valuation is complete, KRS' actuary will calculate KEMI's and CCU's portion of KRS' actuarial unfunded liability. KEMI and CCU will then have to determine if they wish to continue to participate in KERS or withdraw from KERS by paying their portion of the KERS unfunded liability. Final determination regarding the status of KEMI's and CCU's participation in KERS is expected to occur during the 3rd quarter of fiscal 2017. Consequently, no provision has been made in the combining financial statements.

Note O. Reimbursement Of Retired – Re-employed Health Insurance

As a result of the passage of House Bill 1 on September 1, 2008, if a retiree is re-employed in a regular full time position and has chosen health insurance coverage through KRS, the employer is required to reimburse KRS for the health insurance premium paid on the retiree's behalf, not to exceed the cost of the single premium rate. As of June 30, 2016 and 2015, the reimbursement totaled \$14.7 million and \$12.6 million, respectively.

Note P. Reciprocity Agreement

KRS has a reciprocity agreement with Kentucky Teachers' Retirement System (KTRS) for the payment of insurance benefits for those members who have creditable service in both systems.

Note Q. Related Party

Perimeter Park West, Inc. (PPW) is a legally separate, tax-exempt Kentucky corporation established in 1998 to own the land and buildings on which KRS is located. PPW leases the buildings to KRS (the lease is renewed periodically) and provides maintenance for the buildings and land. PPW is considered a related party to KRS and has its own separate financial audit. The following presents the amounts recorded between KRS and PPW for the fiscal year ended June 30, 2016:

Lease payments to PPW from KRS:	\$698,220
Dividends to KRS from PPW:	-

Note R. City Of Fort Wright

In June 2014, the City of Fort Wright, a participating employer in CERS, filed a lawsuit against KRS alleging that the Board invested CERS funds in investments that were prohibited by both statutory and common law. In addition, the City of Fort Wright alleged that the Board paid substantial asset management fees, which the suit alleges were improper. Although the exact nature and source of the relief sought is unclear, it appears that the City of Fort Wright is seeking a declaration of rights, an injunction barring the placement of CERS assets in certain types of investments, an accounting of CERS assets, restitution of management fees to CERS, and attorney fees. As noted above, the exact nature and scope of the relief sought in this suit is unclear; therefore, no provision has been made in the combining financial statements. In September 2016 the Kentucky Court of Appeals issued an Opinion regarding the appeal of the Trial Court's ruling upon dispositive motions. A Motion for Discretionary Review of the Court of Appeals ruling was filed at the Kentucky Supreme Court on October 21, 2016 .

On September 2, 2015, a CERS member filed a complaint that is substantially similar in terms of allegation and ambiguous requests for relief to that of the City of Fort Wright. The exact nature and scope of the relief sought is unclear; therefore, no provision has been made in the combining financial statements. The member's complaint is currently being held in abeyance pending the outcome of the City of Fort Wright's appeal.

Note S. City of Hillview

The City of Hillview, a participating employer in CERS, filed a petition for Chapter 9 Bankruptcy protection on August 20, 2015, following a multi-million dollar civil judgment. Although KRS is listed as a debtor in this action, the impact, if any, on CERS is unclear. Consequently, no provision has been made in the combining financial statements as a result of this litigation. An Order Dismissing the Chapter 9 case was issued on May 9, 2016, without impact on CERS.

RE-EMPLOYED-

A retired member who was reemployed on, or after, September 1, 2008, cannot accrue additional service credit in KRS, even if employed in a position that would otherwise be required to participate in KRS. However, if a retiree is re-employed in a regular full time position, his/her employer is required to pay contributions on all creditable compensation earned during the period of re-employment. These contributions are used to reduce the unfunded actuarial liability.

All regular full-time employees who began participation with KRS on, or after, January 1, 2014 contribute to the hybrid cash balance plan. Participation in the plan is mandatory unless the employee is employed in a non-participating position.

Note T. Reduction of Receivable

Employers reported June 2015 wages earned in the following month of July 2015 (next fiscal year) and the new Annual Required Contribution (ARC) rate was applied. The Commonwealth's approved budget guidelines paid contributions at the fiscal year 2015 ARC rate in effect when the wages were earned. It is unlikely that KRS will receive payments at the new ARC rate for that period; therefore, contribution receivables have been reduced as of June 30, 2015, as noted in the chart.

For fiscal 2016, no reduction was necessary since the ARC remained the same as fiscal 2015.

	2016	2015
KERS Hazardous	-	\$5,981,880
SPRS	-	91,618
Total	-	\$6,073,498

Note U. Bank of America Settlement

In August 2014, Bank of America reached a \$16.65 billion settlement with U.S. regulators to settle charges that it misled investors into buying troubled mortgage-backed securities. The settlement called for the bank to pay a \$9.65 billion cash penalty and provide \$7 billion of consumer relief to homeowners and communities. Bank of America admitted having sold billions of dollars of risky mortgage-backed securities while concealing key facts about the quality of the underlying loans. It also admitted to having made misrepresentations to Fannie Mae and Freddie Mac about the quality of loans sold to those government-controlled mortgage companies. KRS' share of this settlement amounted to \$23,000,000, and was received on October 24, 2014. The amount was allocated among the plans in the fiscal 2015 combining financial statements as detailed in the chart.

KERS Non-Hazardous	\$8,442,347
KERS Hazardous	767,141
CERS Non-Hazardous	10,280,391
CERS Hazardous	2,865,365
SPRS	644,756
Total	\$23,000,000

Note V. Governance Reorganization

The Governor of Kentucky issued a series of Executive Orders (EO) that impacted the governance of the Kentucky Retirement Systems. EO 2016-211, issued on April 20, 2016, removed one of the trustees from the Board of Trustees before his term had expired. The Governor then issued EO 2016-214, on April 21, 2016, appointing another person as trustee in place of the trustee removed under EO 2016-211. After that person declined the appointment, the Governor issued EO 2016-273 on May 18, 2016, appointing another person as trustee in place of the trustee removed under EO 2016-211. The Attorney General of Kentucky issued an opinion on May 17, 2016, that the Governor did not have the authority to remove a board member prior to the expiration of his term.

On June 17, 2016, the Governor issued EO 2016-340, in which the Board of Trustees established under KRS 61.645 was abolished and a new Board of Directors was created. The EO changed other provisions of KRS 61.645 including adding four (4) additional board members, giving the Governor the authority to appoint the Chair and Vice-Chair of the Board of Directors, requiring that the Governor approve the Executive Director appointed by the Board of Directors, and transferring KRS employees from the personnel system established in KRS 61.645 and 105 KAR 1:370 to the Commonwealth's personnel system under KRS Chapter 18A. The Governor cited his authority to reorganize executive branch agencies under KRS 12.028. The Board of Directors established in EO 2016-340 is currently managing the assets and administrative duties of KRS.

The Board of Directors, as of December 1, 2016, is comprised of the following: John Farris, Chair, Governor Appointee; John E. Chilton, Vice Chair, Governor Appointee; David J. Adams, Governor Appointee; William S. Cook, Governor Appointee; Edwin Davis, elected by CERS; Thomas Elliott, Governor Appointee; Governor Appointee; J.T. Fulkerson, Joseph Hardesty, Governor Appointee; David L. Harris, Governor Appointee; Vince Lang, elected by KERS; Mark Lattis, Governor Appointee; Keith Peercy, elected by SPRS; Mary Helen Peter, elected by KERS; Neil P. Ramsey, Governor Appointee; David Rich, elected by CERS; Randy K. Stevens, Governor Appointee; Thomas B. Stephens, Personnel Secretary; and William Summers, elected by CERS.

Two KRS Board members and the Attorney General of the Commonwealth have challenged the Governor's authority to remove a Trustee prior to the end of that Trustee's term of office and his authority to suspend statutory provisions in order to reorganize KRS. (EOs 2016-211, 214, 273, and 340). KRS expects an opinion to be issued on the merits of the suits prior to January 1, 2017. As it is unclear as to any financial impact these issues may cause, no provision has been made in the combining financial statements as a result of the Executive Orders or the litigation.

Note W. Subsequent Events

Management has evaluated the period June 30, 2016, to December 1, 2016, (the date the combining financial statements were available to be issued) for items requiring recognition or disclosure in the combining financial statements. In September 2016, the Commonwealth contracted with the Public Financial Management Group, LLC to perform a comprehensive Pension Performance and Best Practices Analysis of all the state's retirement systems, including KRS. Their report will include their analysis of operations, investments, plan structure, etc. and is expected no sooner than December 31, 2016. In addition, KRS is in the process of reviewing its asset allocation with special focus on the 10% allocation to Absolute Return. A number of external money managers in the Absolute Return allocation will be eliminated over the course of the following 24 months.

On Nov 17, 2016, Western Kentucky University (WKU) a participating employer, filed a petition for declaration of rights in the Franklin Circuit Court in Frankfort, KY. The petition involved a dispute as to whether WKU can terminate a group of its employees which participated in KERS and reutilize those same employees through a privatization process excusing WKU from its obligations to pay contributions to the KERS Fund. The exact nature and scope of the relief sought is unclear; therefore, no provision has been made in the Combined Financial Statements.

REQUIRED

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Schedules of Funding Progress for KERS Insurance Fund

Year Ended	Actuarial Value of Assets (a)	AAL Entry Age Normal (b)	UAAL (b-a)	Funded (a/b)	Covered Payroll** (c)	UAAL as % of Covered Payroll [(b-a)/c]
Non-Hazardous						
June 30, 2007	621,171,658	5,201,355,055	4,580,183,397	11.9	1,780,223,493	257.3
June 30, 2008	603,197,761	5,431,499,285	4,828,301,524	11.1	1,837,873,488	262.7
June 30, 2009	534,172,580	4,507,325,571	3,973,152,991	11.9	1,754,412,912	226.5
June 30, 2010	471,341,628	4,466,136,041	3,994,794,413	10.6	1,815,146,388	220.1
June 30, 2011	451,620,442	4,280,089,633	3,828,469,191	10.6	1,731,632,748	221.1
June 30, 2012	446,080,511	3,125,330,157	2,679,249,646	14.3	1,644,896,681	162.9
June 30, 2013	497,584,327	2,128,754,134	1,631,169,807	23.4	1,644,408,698	99.2
June 30, 2014	621,236,646	2,226,759,925	1,605,523,279	27.9	1,577,496,447	101.8
June 30, 2015	695,018,262	2,413,705,252	1,718,686,990	28.8	1,544,234,409	111.3
June 30, 2016	743,270,060	2,456,677,964	1,713,407,904	30.3	1,529,248,873	112.0
Hazardous						
June 30, 2007	251,536,756	504,842,981	253,306,225	49.8	144,838,020	174.9
June 30, 2008	288,161,759	541,657,214	253,495,455	53.2	148,710,060	170.5
June 30, 2009	301,634,592	491,132,170	189,497,578	61.4	146,043,576	129.8
June 30, 2010	314,427,296	493,297,529	178,870,233	63.7	143,557,944	124.6
June 30, 2011	329,961,615	507,058,767	177,097,152	65.1	133,053,792	133.1
June 30, 2012	345,573,948	384,592,406	39,018,458	89.9	131,976,754	29.6
June 30, 2013	370,774,403	385,517,675	14,743,272	96.2	132,015,368	11.2
June 30, 2014	419,395,867	396,986,820	(22,409,047)	105.6	129,076,038	(17.4)
June 30, 2015	451,514,191	374,904,234	(76,609,957)	120.4	128,680,130	(59.5)
June 30, 2016	473,160,173	377,745,230	(95,414,943)	125.3	147,563,457	(64.7)
Total						
June 30, 2007	872,708,414	5,706,198,036	4,833,489,622	15.3	1,925,061,513	251.1
June 30, 2008	891,359,520	5,973,156,499	5,081,796,979	14.9	1,986,583,548	255.8
June 30, 2009	835,807,172	4,998,457,741	4,162,650,569	16.7	1,900,456,488	219.0
June 30, 2010	785,768,924	4,959,433,570	4,173,664,646	15.8	1,958,704,332	213.1
June 30, 2011	781,582,057	4,787,148,400	4,005,566,343	16.3	1,864,686,540	214.8
June 30, 2012	791,654,459	3,509,922,563	2,718,268,104	22.6	1,776,873,435	153.0
June 30, 2013	868,358,730	2,514,271,809	1,645,913,079	34.5	1,776,424,066	92.7
June 30, 2014	1,040,632,513	2,623,746,745	1,583,114,232	39.7	1,706,572,485	92.8
June 30, 2015	1,146,532,453	2,788,609,486	1,642,077,033	41.1	1,672,914,539	98.2
June 30, 2016	1,216,430,233	2,834,423,194	1,617,992,961	42.9	1,676,812,330	96.5

See Independent Auditors' Report. ** Covered payroll was actuarially computed

Schedules of Funding Progress for CERS Insurance Fund

Year Ended	Actuarial Value of Assets (a)	AAL Entry Age Normal (b)	UAAL (b-a)	Funded (a/b)	Covered Payroll** (c)	UAAL as % of Covered Payroll [(b-a)/c]
Non-Hazardous						
June 30, 2007	960,285,900	3,333,966,070	2,373,680,170	28.8	2,076,848,328	114.3
June 30, 2008	1,168,883,170	3,583,193,466	2,414,310,296	32.6	2,166,612,648	111.4
June 30, 2009	1,216,631,769	3,070,386,018	1,853,754,249	39.6	2,183,611,848	84.9
June 30, 2010	1,293,038,593	3,158,340,174	1,865,301,581	40.9	2,236,855,380	83.4
June 30, 2011	1,433,450,793	3,073,973,205	1,640,522,412	46.6	2,276,595,948	72.1
June 30, 2012	1,512,853,851	2,370,771,288	857,917,437	63.8	2,236,546,345	38.4
June 30, 2013	1,628,244,197	2,443,894,100	815,649,903	66.6	2,236,277,489	36.5
June 30, 2014	1,831,199,465	2,616,914,600	785,715,135	70.0	2,272,270,287	34.6
June 30, 2015	1,997,456,463	2,907,827,440	910,370,977	68.7	2,296,715,957	39.6
June 30, 2016	2,079,811,055	2,988,121,117	908,310,062	69.6	2,352,761,794	38.6
Hazardous						
June 30, 2007	512,926,549	1,646,460,011	1,133,533,462	31.2	458,998,956	247.0
June 30, 2008	613,526,319	1,769,782,957	1,156,256,638	34.7	474,241,332	243.8
June 30, 2009	651,130,782	1,593,548,263	942,417,481	40.9	469,315,464	200.8
June 30, 2010	692,769,770	1,674,703,216	981,933,446	41.4	466,548,660	210.5
June 30, 2011	770,790,274	1,647,702,755	876,912,481	46.8	466,963,860	187.8
June 30, 2012	829,040,842	1,364,843,057	535,802,215	60.7	464,228,923	115.4
June 30, 2013	892,774,391	1,437,332,817	544,558,426	62.1	461,672,567	118.0
June 30, 2014	997,733,237	1,493,864,379	496,131,142	66.8	479,164,016	103.5
June 30, 2015	1,087,707,118	1,504,015,233	416,308,115	72.3	483,640,601	86.1
June 30, 2016	1,135,784,220	1,558,818,204	423,033,984	72.9	492,850,521	85.8
Total						
June 30, 2007	1,473,212,449	4,980,426,081	3,507,213,632	29.6	2,535,847,284	138.3
June 30, 2008	1,782,409,489	5,352,976,423	3,570,566,934	33.3	2,640,853,980	135.2
June 30, 2009	1,867,762,551	4,663,934,281	2,796,171,730	40.0	2,652,927,312	105.4
June 30, 2010	1,985,808,363	4,833,043,390	2,847,235,027	41.1	2,703,404,040	105.3
June 30, 2011	2,204,241,067	4,721,675,960	2,517,434,893	46.7	2,743,559,808	91.8
June 30, 2012	2,341,894,693	3,735,614,345	1,393,719,652	62.7	2,700,775,268	51.6
June 30, 2013	2,521,018,588	3,881,226,917	1,360,208,329	65.0	2,697,950,056	50.4
June 30, 2014	2,828,932,702	4,110,778,979	1,281,846,277	68.8	2,751,434,303	46.6
June 30, 2015	3,085,163,581	4,411,842,673	1,326,679,092	69.9	2,780,356,558	47.7
June 30, 2016	3,215,595,275	4,546,939,321	1,331,344,046	70.7	2,845,612,315	46.8

See Independent Auditors' Report. ** Covered payroll was actuarially computed

Schedules of Funding Progress for SPRS Insurance Fund

Year Ended	Actuarial Value of Assets (a)	AAL Entry Age Normal (b)	UAAL (b-a)	Funded (a/b)	Covered Payroll** (c)	UAAL as % of Covered Payroll [(b-a)/c]
June 30, 2007	115,215,912	432,763,229	317,547,317	26.6	49,247,580	644.8
June 30, 2008	123,961,197	445,107,468	321,146,271	27.8	53,269,080	602.9
June 30, 2009	123,526,647	364,031,141	240,504,494	33.9	51,660,396	465.5
June 30, 2010	121,175,083	434,960,495	313,785,412	27.9	51,506,712	609.2
June 30, 2011	123,687,289	438,427,763	314,740,474	28.2	48,692,616	646.4
June 30, 2012	124,372,072	333,903,782	209,531,710	37.2	48,372,506	433.2
June 30, 2013	136,321,060	222,326,743	86,005,683	61.3	45,256,202	190.0
June 30, 2014	155,594,760	234,271,127	78,676,367	66.4	44,615,885	176.3
June 30, 2015	167,774,940	254,838,710	87,063,770	65.8	45,764,515	190.2
June 30, 2016	172,703,691	257,197,259	84,493,568	67.1	45,551,469	185.5

See Independent Auditors' Report. ** Covered payroll was actuarially computed

Schedules of Contributions from Employers & Other Contributing Entities

KERS - Insurance Fund

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
Non-Hazardous				
June 30, 2007	219,768,964	64,014,332	\$10,744,049	34.0
June 30, 2008	558,745,820	56,744,942	6,633,538	11.3
June 30, 2009	362,707,378	74,542,932	8,167,982	22.8
June 30, 2010	376,556,187	93,976,917	8,550,914	27.2
June 30, 2011	294,897,813	129,335,552	-	43.9
June 30, 2012	297,904,224	156,057,216	-	52.4
June 30, 2013	286,143,134	165,330,557	-	57.8
June 30, 2014	208,880,813	166,609,592	-	79.8
June 30, 2015	130,455,026	135,940,337	-	104.2
June 30, 2016	121,898,903	135,815,817	-	111.4
Hazardous				
June 30, 2007	31,304,778	19,534,819	\$104,669	62.7
June 30, 2008	51,214,929	21,997,341	73,891	43.1
June 30, 2009	34,670,467	20,807,204	186,081	60.6
June 30, 2010	35,045,278	21,921,535	319,059	63.5
June 30, 2011	29,585,257	19,952,580	-	67.4
June 30, 2012	28,326,206	24,538,087	-	86.6
June 30, 2013	26,252,911	25,682,403	-	97.8
June 30, 2014	15,627,018	23,873,967	-	152.8
June 30, 2015	13,151,938	14,882,343	-	113.2
June 30, 2016	9,185,866	16,765,530	-	182.5

See Independent Auditors' Report.

Schedules of Contributions from Employers & Other Contributing Entities

CERS - Insurance Fund

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
Non-Hazardous				
June 30, 2007	285,600,490	147,608,801	\$9,623,431	55.1
June 30, 2008	406,541,729	196,110,111	6,003,181	49.7
June 30, 2009	264,733,532	123,852,611	7,623,628	49.7
June 30, 2010	266,331,326	166,607,097	9,156,991	66.0
June 30, 2011	213,429,424	186,885,576	-	87.6
June 30, 2012	214,421,008	171,924,836	-	80.2
June 30, 2013	195,560,870	159,992,643	-	81.8
June 30, 2014	130,651,800	123,278,028	-	94.4
June 30, 2015	119,510,589	119,443,608	-	99.9
June 30, 2016	110,987,287	111,836,358	-	100.8
Hazardous				
June 30, 2007	115,938,899	70,072,785	\$656,523	61.0
June 30, 2008	168,723,639	90,113,200	419,774	53.7
June 30, 2009	126,757,348	70,785,241	627,938	56.3
June 30, 2010	129,227,449	83,042,875	1,493,440	65.4
June 30, 2011	109,226,667	98,592,286	-	90.3
June 30, 2012	110,762,577	92,563,664	-	83.6
June 30, 2013	102,010,672	85,319,393	-	83.6
June 30, 2014	74,360,438	74,791,619	-	100.6
June 30, 2015	69,102,811	71,778,130	-	103.9
June 30, 2016	64,253,032	67,619,149	-	105.2
See Independent Auditors' Report.				

SPRS - Insurance Fund

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2007	15,233,320	6,488,600	\$361,942	45.0
June 30, 2008	43,469,735	7,329,229	183,564	17.3
June 30, 2009	29,324,666	7,413,552	229,240	26.1
June 30, 2010	30,302,151	8,369,428	273,684	28.5
June 30, 2011	25,772,574	11,050,964	-	42.9
June 30, 2012	28,246,786	11,960,468	-	42.3
June 30, 2013	27,234,229	16,828,681	-	61.8
June 30, 2014	20,879,022	14,493,242	-	69.4
June 30, 2015	9,889,797	10,381,881	-	105.0
June 30, 2016	8,552,633	10,237,021	-	119.7

See Independent Auditors' Report.



Actuary Assumption Changes

For the valuations as of June 30, 2016, the discount rate used to measure the total pension liability was reduced to 6.75% for KERS Non-Hazardous and SPRS. The discount rate for CERS Non-Hazardous, CERS Hazardous and KERS Hazardous remained at 7.5%. The long term assessed rate of return was based upon an analysis adopted by the Board of Trustees on December 3, 2015.

The actuarially determined contribution rates are determined on a biennial basis beginning with the fiscal years ended 2016 and 2017, determined as of June 30, 2015. The amortization period of the unfunded liability was reset as of July 1, 2013, to a closed 30-year period. The following actuarial methods and assumptions were used to determine contribution rates reported for all systems:

	2016	2015
Actuarial Cost Method	Entry Age	Entry Age
Amortization Method	Level of Percentage of Payroll, closed	Level of Percentage of Payroll, closed
Remaining Amortization Period	27 years	28 years
Asset Valuation Method	5 year Smoothed Market	5 year Smoothed Market
Inflation	3.25%	3.25%
Salary Increase	4.0%, average, including Inflation	4.0%, average, including Inflation
Investment Rate of Return	6.75%, for KERS Non-Hazardous and SPRS; CERS Non-Hazardous and Hazardous, and KERS Hazardous is 7.5%. Net of Pension Plan Investment Expense, including Inflation	7.5% for both Non-Hazardous and Hazardous, Net of Pension Plan Investment Expense, excluding Inflation.

GASB 67

Schedule of Employer Contributions - Pension Funds (*in thousands*)

KERS Non-Hazardous	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially Determined Employer Contribution	\$512,670	\$520,948	\$520,765	\$485,396	\$441,094	\$381,915	\$348,495	\$294,495	\$264,743	\$176,774
Actual Employer Contributions	513,084	521,691	296,836	280,874	214,786	193,754	144,051	112,383	104,655	88,249
Annual Contribution Deficiency (Excess)	(414)	(743)	223,929	204,522	226,308	188,161	204,444	182,112	160,088	88,525
Covered Employee Payroll	1,631,025	1,544,234	1,577,496	1,644,409	1,644,897	1,731,633	1,815,146	1,754,413	1,837,873	1,780,223
Actual Contributions as a Percentage of Covered Employee Payroll	31.46%	33.78%	18.82%	17.08%	13.06%	11.19%	7.94%	6.41%	5.69%	4.96%

Schedule of Employer Contributions - Pension Funds (*in thousands*)

KERS Hazardous	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially Determined Employer Contribution	\$23,690	\$28,374	\$13,570	\$21,502	\$20,265	\$20,605	\$17,815	\$15,708	\$14,147	\$12,220
Actual Employer Contributions	23,759	28,536	11,670	27,334	20,809	19,141	17,658	15,843	15,257	13,237
Annual Contribution Deficiency (Excess)	(69)	(162)	1,900	(5,832)	(544)	1,464	157	(135)	(1,110)	(1,017)
Covered Employee Payroll	158,828	128,680	129,076	132,015	131,977	133,054	143,558	146,044	148,710	144,838
Actual Contributions as a Percentage of Covered Employee Payroll	14.96%	22.18%	9.04%	20.71%	15.77%	14.39%	12.3%	10.85%	10.26%	9.14%

Schedule of Employer Contributions - Pension Funds *(in thousands)*

CERS Non-Hazardous	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially Determined Employer Contribution	\$282,767	\$297,715	\$324,231	\$294,914	\$261,764	\$218,985	\$186,724	\$161,097	\$138,311	\$112,508
Actual Employer Contributions	284,106	298,566	324,231	294,914	275,736	248,519	207,076	179,285	150,925	124,261
Annual Contribution Deficiency (Excess)	(1,339)	(851)	-	-	(13,972)	(29,534)	(20,352)	(18,188)	12,614	(11,753)
Covered Employee Payroll	2,417,187	2,296,716	2,272,270	2,236,277	2,236,546	2,276,596	2,236,855	2,183,612	2,166,613	2,076,848
Actual Contributions as a Percentage of Covered Employee Payroll	11.75%	13%	14.27%	13.19%	12.33%	10.92%	9.26%	8.21%	6.97%	5.98%

Schedule of Employer Contributions - Pension Funds *(in thousands)*

CERS Hazardous	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially Determined Employer Contribution	\$104,952	\$107,514	\$115,240	\$120,140	\$83,589	\$78,796	\$76,391	\$69,056	\$64,082	\$53,890
Actual Employer Contributions	105,713	108,071	115,240	120,140	89,329	85,078	82,887	78,152	72,155	61,553
Annual Contribution Deficiency (Excess)	(761)	(557)	-	-	(5,740)	(6,282)	(6,496)	(9,096)	(8,073)	(7,663)
Covered Employee Payroll	526,334	483,641	479,164	461,673	464,229	466,964	466,549	469,315	474,241	458,999
Actual Contributions as a Percentage of Covered Employee Payroll	20.08%	22.35%	24.05%	26.02%	19.24%	18.22%	17.77%	16.65%	15.21%	13.41%

Schedule of Employer Contributions - Pension Funds *(in thousands)*

SPRS	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially Determined Employer Contribution	\$25,723	\$31,444	\$25,808	\$23,117	\$20,498	\$18,463	\$18,765	\$15,952	\$13,823	\$9,024
Actual Employer Contributions	25,822	31,990	20,279	18,501	15,362	12,657	9,489	8,186	7,443	6,142
Annual Contribution Deficiency (Excess)	(99)	(546)	5,529	4,616	5,136	5,806	9,276	7,766	6,380	2,882
Covered Employee Payroll	46,685	45,765	44,616	45,256	48,373	48,693	51,507	51,660	53,269	49,248
Actual Contributions as a Percentage of Covered Employee Payroll	55.31%	69.9%	45.45%	40.88%	31.76%	25.99%	18.42%	15.85%	13.97%	12.47%

These tables are intended to show information for ten years; additional years' information will be displayed as it becomes available.

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

Total Pension Liability (TPL)	KERS Non-Hazardous			KERS Hazardous		
	2016	2015	2014	2016	2015	2014
Service Cost	\$139,631	\$143,847	\$133,361	\$20,751	\$18,729	\$16,880
Interest	891,897	859,509	853,652	64,851	61,005	59,594
Benefit Changes	-	-	-	-	-	-
Difference between Expected and Actual Experience	-	30,958	-	-	6,066	-
Changes of Assumptions	923,999	694,591	-	-	52,166	-
Benefit Payments	(923,288)	(905,790)	(889,936)	(59,306)	(56,774)	(54,321)
Refunds of Contributions	(12,130)	(13,552)	(13,627)	(2,211)	(2,609)	(2,830)
Net Change in TPL	1,020,109	809,563	83,450	24,085	78,583	19,323
TPL - Beginning	12,359,673	11,550,110	11,466,660	895,433	816,850	797,527
TPL - Ending (a)	\$13,379,782	\$12,359,673	\$11,550,110	\$919,518	\$895,433	\$816,850
Plan Net Position						
Contributions - Employers	\$513,084	\$521,692	\$296,836	\$23,760	\$28,536	\$11,671
Contributions - Members	106,494	104,605	97,487	15,739	13,207	12,546
Net Investment Income	(20,662)	44,569	337,922	(1,652)	8,701	80,724
Benefit Payments	(923,288)	(905,790)	(889,936)	(59,306)	(56,774)	(54,321)
Administrative Expense	(10,988)	(10,474)	(11,145)	(918)	(844)	(898)
Refunds of Contributions	(12,130)	(13,552)	(13,627)	(2,211)	(2,609)	(2,830)
Other	-	8,442	-	-	767	-
Net Change in Plan Position	(347,490)	(250,508)	(182,463)	(24,588)	(9,016)	46,892
Plan Net Position - Beginning	2,327,782	2,578,290	2,760,753	552,468	561,484	514,592
Plan Net Position - Ending (b)	\$1,980,292	\$2,327,782	\$2,578,290	\$527,880	\$552,468	\$561,484
Net Pension Liability - Ending (a-b)	\$11,399,490	\$10,031,891	\$8,971,820	\$391,638	\$342,965	\$255,366
Ratio of Plan Net Position to TPL	14.8%	18.83%	22.32%	57.41%	61.7%	68.74%
Covered Employee Payroll	1,631,025	\$1,544,234	\$1,577,496	158,828	\$128,680	\$129,076
Net Pension Liability as a percentage of Covered Employee Payroll	698.92%	649.64%	568.74%	246.58%	266.53%	197.84%

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

	CERS Non-Hazardous			CERS Hazardous			SPRS Hazardous		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Total Pension Liability (TPL)									
Service Cost	\$209,100	\$207,399	\$192,482	\$66,249	\$71,935	\$66,762	\$8,402	\$7,696	\$7,142
Interest	780,587	733,003	710,527	262,886	247,008	238,665	52,951	50,660	50,391
Benefit Changes	-	-	-	-	-	-	-	-	-
Difference between Expected and Actual Experience	-	49,966	-	-	41,935	-	-	9,331	-
Changes of Assumptions	-	606,293	-	-	166,849	-	56,191	40,202	-
Benefit Payments	(651,247)	(615,335)	(582,850)	(213,448)	(200,134)	(189,635)	(56,268)	(54,766)	(53,026)
Refunds of Contributions	(13,754)	(13,524)	(14,286)	(2,879)	(3,111)	(2,664)	(11)	(85)	(213)
Net Change in TPL	324,686	967,802	305,873	112,808	324,482	113,127	61,265	53,038	4,294
TPL - Beginning	10,740,325	9,772,523	9,466,650	3,613,308	3,288,826	3,175,699	734,157	681,119	676,825
TPL - Ending (a)	\$11,065,011	\$10,740,325	\$9,772,523	\$3,726,116	\$3,613,308	\$3,288,826	\$795,422	\$734,157	\$681,119
Plan Net Position									
Contributions - Employers	\$284,106	\$298,565	\$324,231	\$105,714	\$108,072	\$115,240	\$25,822	31,990	\$20,279
Contributions - Members	141,674	140,311	128,568	52,972	47,693	43,722	5,262	5,244	5,076
Net Investment Income	(40,799)	110,569	895,531	(9,021)	37,104	288,490	(3,841)	3,427	40,374
Benefit Payments	(651,247)	(615,335)	(582,850)	(213,448)	(200,134)	(189,635)	(56,268)	(54,766)	(53,026)
Administrative Expense	(19,384)	(18,212)	(18,615)	(1,363)	(1,289)	(1,721)	(180)	(201)	(215)
Refunds of Contributions	(13,754)	(13,524)	(14,286)	(2,879)	(3,111)	(2,665)	(11)	(85)	(213)
Other	-	10,280	-	-	2,865	-	-	646	-
Net Change in Plan Position	(299,404)	(87,346)	732,579	(68,025)	(8,800)	253,431	(29,216)	(13,745)	12,276
Plan Net Position - Beginning	6,440,800	6,528,146	5,795,568	2,078,202	2,087,002	1,833,571	247,229	260,974	248,698
Plan Net Position - Ending (b)	\$6,141,396	\$6,440,800	\$6,528,147	\$2,010,177	\$2,078,202	\$2,087,002	\$218,013	\$247,229	\$260,974
Net Pension Liability - Ending (a-b)	\$4,923,615	\$4,299,525	\$3,244,376	\$1,715,939	\$1,535,106	\$1,201,824	\$577,409	\$486,928	\$420,145
Ratio of Plan Net Position to TPL	55.5%	59.97%	66.80%	53.95%	57.52%	63.46%	27.41%	33.68%	38.32%
Covered Employee Payroll	2,417,187	\$2,296,716	\$2,272,270	526,334	\$483,641	\$479,164	46,685	\$45,765	\$44,616
Net Pension Liability as a percentage of Covered Employee Payroll	203.69%	187.2%	142.78%	326.02%	317.41%	250.82%	1236.82%	1,063.97%	941.69%

Money-Weighted Rates Of Return

In accordance with GASB Statement No. 67, Financial Reporting for Pension Plans, KRS provides this additional disclosure regarding its money-weighted rate of return for the pension funds. The money-weighted rate of return is a method of calculating period-by-period returns on pension plan investments that adjusts for the changing amounts actually invested. For purposes of this Statement, money weighted-rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense, adjusted for the changing amounts actually invested.

See below for the money-weighted rates of return as of June 30, 2016, 2015, and 2014, as calculated by the custodial bank, BNY-Mellon:

Pension Funds					
	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
2016	-0.97%	-0.33%	-0.62%	-0.46%	-1.76%
2015	1.89%	1.69%	1.65%	1.88%	1.71%
2014	15.50%	15.65%	15.56%	15.50%	15.66%

The money-weighted rates of return declined due to unfavorable conditions in the capital markets. This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

Additional Supporting Schedules

Schedule of Administrative Expenses (in Thousands) for the fiscal years ended June 30

Expense	2016	2015
Personnel		
Salaries and Per Diem	14,685	\$14,292
Fringe Benefits	8,947	8,687
Tuition Assistance	27	34
Unemployment Compensation	13	-
Total Personnel	\$23,672	\$23,013
Contractual Services		
Actuarial	450	337
Audit	99	108
Healthcare	15	3
Legal Counsel	415	722
Medical	339	315
Miscellaneous	112	269
Total Contractual Services	\$1,430	\$1,754
Communication		
Printing	172	81
Telephone	201	105
Postage	276	300
Travel	113	116
Total Communication	\$762	\$602
Rentals		
Office Space	731	718
Equipment	69	76
Total Rentals	\$800	\$794
Internal Audit		
Travel/Conferences	4	\$4
Dues/Subscriptions	1	1
Miscellaneous	1	1
Total Internal Audit	\$6	\$6

Expense	2016	2015
Investments - Pension Fund		
Travel/Conferences	29	37
Dues/Subscriptions	6	8
Computer	-	21
Contractual	189	225
Miscellaneous	5	7
Legal	153	126
Tuition	6	-
Total Investments	\$388	\$424
Information Technology		
Software	456	434
Hardware	1,006	642
Services	1,237	669
Total Information Technology	\$2,699	\$1,746
Miscellaneous		
Utilities	217	223
Supplies	75	116
Insurance	255	82
Dues & Subscriptions	38	47
Maintenance	4	4
Other	17	20
Total Miscellaneous	\$606	\$492
Depreciation/Amortization	1,937	2,189
Total Pension Fund Administrative Expenses	\$32,300	\$31,020
Healthcare Fees	2,038	2,180
Total Insurance Fund Administrative Expenses	\$2,038	\$2,180
Total Administrative Expenses	\$34,338	\$33,200

Schedule of Direct Investment Expenses *(in Thousands)* for the fiscal years ended June 30

Pension Funds	2016	2015
Security Lending Fees		
Borrower (Income) Rebates	\$100	\$(159)
Lending Agent Fees	680	444
Total Security Lending	\$780	\$285
Contractual Services		
Investment Management	51,711	53,411
Security Custody	945	1,010
Investment Consultant	1,141	1,258
Private Equity Performance Fees	34,201	25,627
Total Contractual Services	\$87,998	\$81,505
Insurance Funds		
Security Lending Fees		
Borrower (income) Rebates	76	(336)
Lending Agent Fees	222	155
Total Security Lending	\$298	(\$181)
Contractual Services		
Investment Management	19,508	18,661
Security Custody	600	675
Investment Consultant	428	448
Private Equity Performance Fees	13,553	8,200
Total Contractual Services	\$34,089	\$27,984
Total Investment Expenses	\$123,165	\$109,593

Schedule of Professional Consultant Fees *(in Thousands)* for the fiscal years ended June 30

Fees	2016	2015
Actuarial Services	\$450	\$337
Medical Review Services	339	315
Audit Services	99	108
Legal Counsel	415	722
Healthcare	15	3
Miscellaneous	112	269
Total	\$1,430	\$1,754

**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***



REPORT OF INDEPENDENT AUDITORS

Board of Directors
Kentucky Retirement Systems
Frankfort, Kentucky

We have audited, in accordance with the 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 combining financial statements of the Pension Funds and Insurance Fund of the Kentucky Retirement Systems (KRS) as of and for the fiscal year ended June 30, 2016, and the related notes to the combining financial statements, which collectively comprise KRS' basic combining financial statements, and have issued our report thereon dated December 1, 2016.

Internal Control Over Financial Reporting

In planning and performing our audit of the combining financial statements, we considered KRS' 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 combining financial statements, but not for the purpose of expressing an opinion on the effectiveness of KRS' internal control. Accordingly, we do not express an opinion on the effectiveness of KRS' 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 was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether KRS' combining financial statements are free of 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 combining 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*.

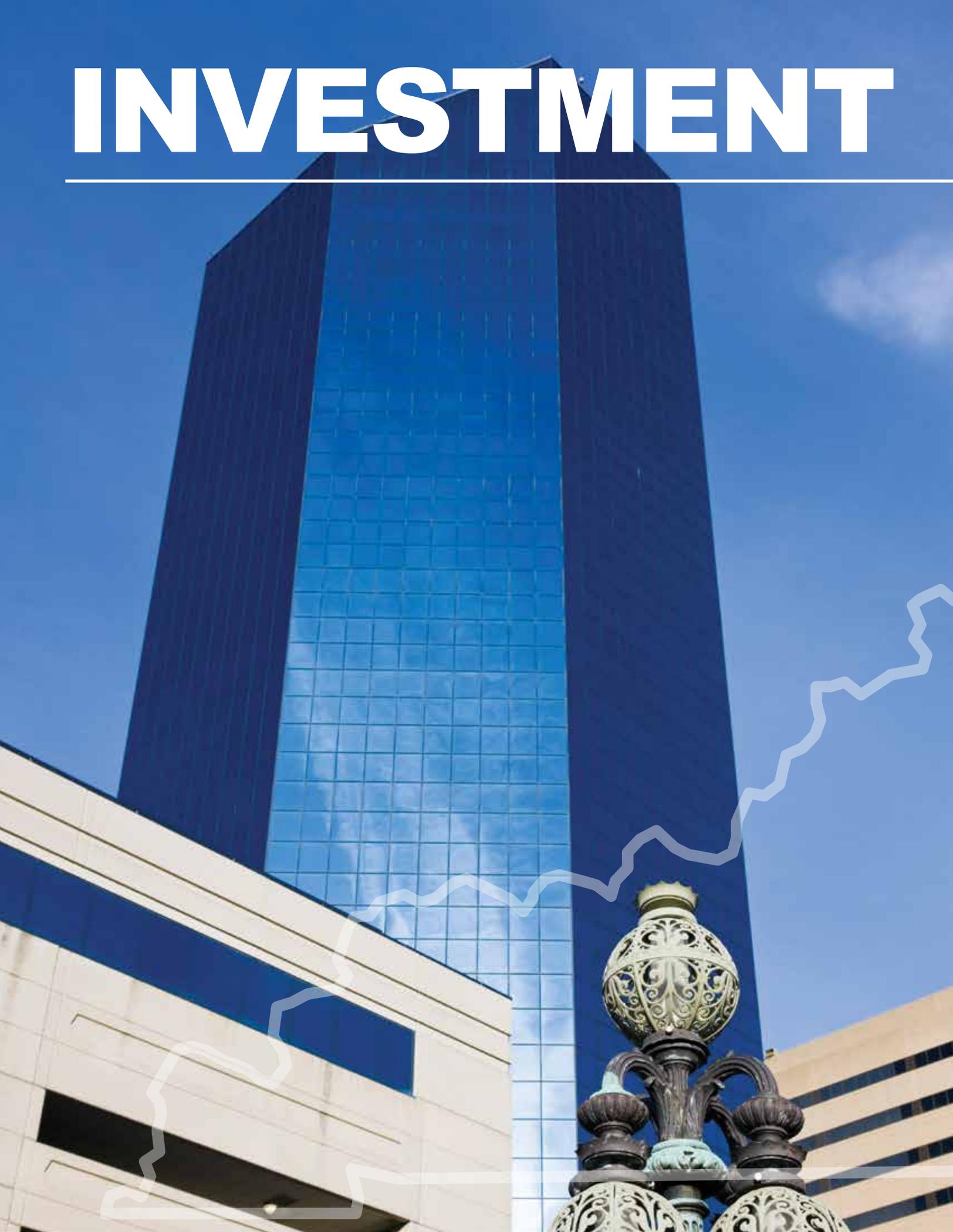
Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result 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 Governmental Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Dean Dotson Allen Ford, PLLC

December 1, 2016
Lexington, Kentucky

INVESTMENT



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Fed
Federal Reserve

MBS
Mortgage
Backed
Securities

GDP
Gross Domestic
Product

U.S. Economy Feeling the Effects of Global Slowdown

Will the U.S. be dragged into the negative interest rate club?

Fiscal year 2016 was unquestionably, the most difficult year for investors since 2008. Many factors contributed to these unfavorable market conditions, including:

- » Weak overseas economics putting pressure on our own economy; our GDP slowed to 1.2% in 2016.
- » Interest rates remained low despite the U.S. Federal Reserve raising short-term rates.
- » The labor force participation rate is near historic lows at 62.7% as of June 2016.
- » Inflation remained low with the Core Consumer Price Index at 1% year-over-year.

The previous fiscal year saw the U.S. economy finally begin to feel the pressure of worldwide economic weakness coupled with ultra-low interest rates. The U.S. Yield Curve continued to flatten, even as the U.S. Federal Reserve raised short-term rates for the first time since the Great Financial Crisis. GDP slowed

to 1.1% as the U.S. began to feel the effects of the global economic slowdown being experienced by the other developed markets around the globe. While employment remains strong, with the unemployment rate dropping to 4.9%, the labor force participation rate remains near historic lows at 62.7%. Inflation remained stubbornly low, with Core CPI at 1% year over year, and Core PCE hovering around the Fed's 2% target. In December, the Federal Reserve provided the much awaited initial increase in the Fed Funds rate, raising the rate ¼ point to a range of 0.25% to 0.5%. Chairwoman Janet Yellen was quick to caution the market that any further increases in the funds rate would be gradual, measured, and data dependent.

Global financial markets were dominated by several themes over the past year. First, the decline in energy prices, which began in late 2014, continued to take its toll on oil and gas based investments. WTI crude oil prices fell below \$27.00 per barrel in February, its lowest level in almost 13 years. The prolonged period of low prices has begun to force some smaller, more levered players into default, and the dramatic drop in prices over the first six weeks of the year caused a large sell-off in U.S. High Yield bond markets and equities around the globe. Investors flocked to the safety of U.S. Treasuries and pushed the yield on the U.S. 10 year notes down from 2.27% at the beginning of the year to just 1.66% in February. However, just when it looked like markets were heading for disaster, crude oil stabilized, and investor's fear turned into greed as risk assets across the board posted large gains well into the summer. The S&P 500, which was down over 10% YTD in mid-February, gained almost 16.00% over the next 3 months, and U.S. High Yield bonds, which had posted a YTD return of -4.6% as of mid-February, rallied 12.7% through the end of May.

Secondly, negative interest rates spread across Europe, as the ECB joined Japan in the zero interest rate club and expanded its quantitative easing via its bond purchased program. As of June, over \$13 trillion dollars of government debt globally was trading at negative rates of interest. Non-U.S. investors have flocked to the safety and relatively high yields provided by U.S. Treasuries, providing further catalyst for rates to remain lower for longer. Equity investors in Europe, faced with slowing growth and little to no inflation, saw the UK FTSE 100 index post a return of -1.58% over the fiscal year. Germany, where 10 year bonds reached a record low in yield of -0.13% in June, saw the DAX post a loss of over 13% (in Euros) for the period.

Lastly, geopolitics reared its head in June when the citizens of the United Kingdom voted to leave the Eurozone. This referendum, commonly referred to as the "Brexit," caught the markets completely off guard, and investors around the globe sought the safe harbor of government bonds over stocks. It is hard to overstate the degree of surprise the markets experienced as it became apparent that the "leave" vote would win. UK Prime Minister Cameron announced his resignation early the next morning, stating that while he campaigned hard for the UK to remain part of the EU "the British people made a different decision to take a different path. As such I think the country requires fresh leadership to take it in this direction." Treasury bonds rallied around the world as the turmoil unfolded, and stocks sold off 2% to 4% depending on the market. The Euro dipped below 1.10 intra-day before recovering. Ultimately, once the initial shock wore off, markets stabilized as participants began to work out various scenarios for a UK exit that will likely not occur until 2018 or beyond.





INVESTMENT SUMMARY

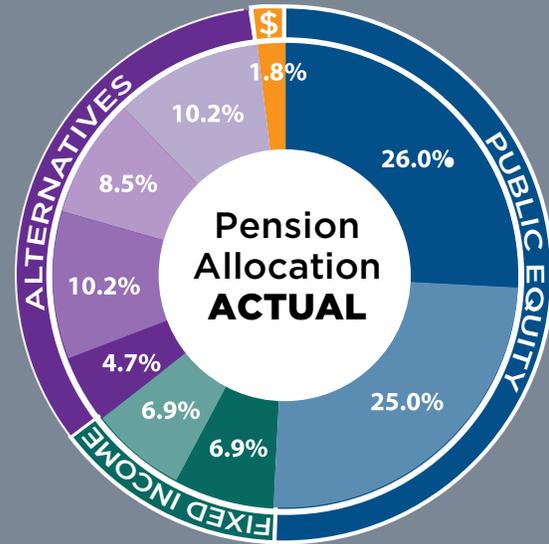
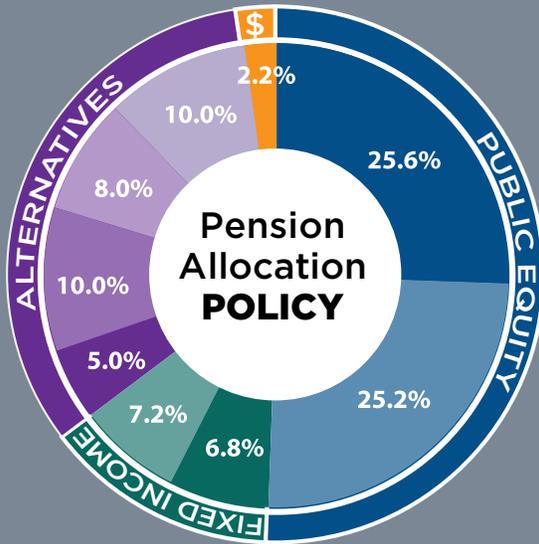
The KRS Board is charged with the responsibility of investing the Systems' assets to provide for the benefits of the members of the Systems. To achieve that goal, the Board follows a policy of thoughtfully growing our asset base while protecting against undue risk and losses in any particular investment area. The Board recognizes its fiduciary duty not only to invest the funds in compliance with the Prudent Person Rule, but also to manage the funds in continued recognition of the basic long term nature of the Systems. In carrying out their fiduciary duties, the Board has set forth clearly defined investment policies, objectives and strategies for both the pension and insurance portfolios.

Investment Policy The KRS Board approved a new target asset allocation beginning January 1, 2016. As of June 30, 2016, the KRS Pension fund's policy allocation invested 25.65% of the assets in U.S. equities, 25.2% in broad market international equities, 6.8% in global fixed income, 7.2% in credit fixed income, 10.0% in private equity, 8% in real return strategies, 10% in absolute return strategies, 5% in real estate, and 2.2% in cash or short-term securities. As of June 30, 2016, the KRS Insurance fund's policy allocation invested 26.5% of the assets in U.S. equities, 26.5% in broad market international equities, 6% in global fixed income, 6% in credit fixed income, 10% in private equity, 8% in real return strategies, 10% in absolute return strategies, 5% in real estate, and 2% in cash or short-term securities. While most systems adhere to the same targets as the overall fund, KERS and SPRS Pension Systems have target allocations with a slightly higher allocation to Fixed Income offset by lower allocations to Public Equities due to the funding level of the two systems.

The following charts graphically depict the Board's investment policy.

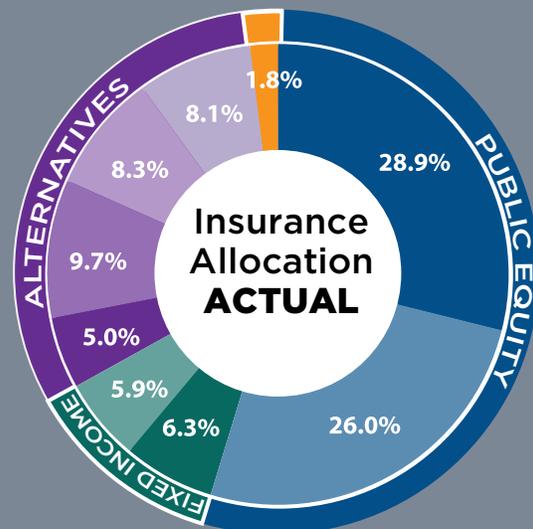
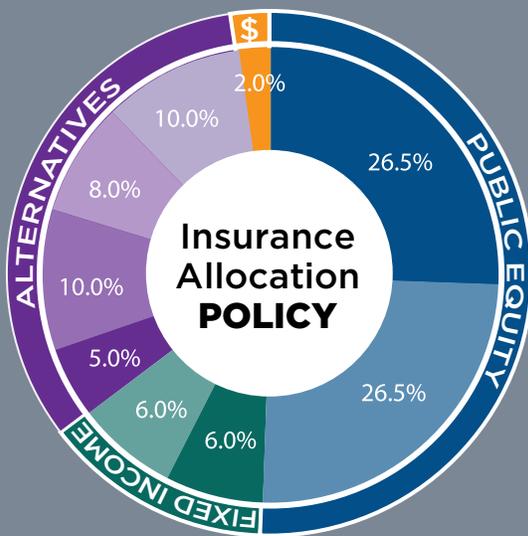
PENSION: Asset Allocation Board Policy vs. Actual as of June 30, 2016

Asset	U.S. Equity	International Equity	Global Fixed	Credit Fixed	Real Estate	Absolute Return	Real Return	Private Equity	Cash
Policy's Pension Asset Allocation	25.6%	25.2%	6.8%	7.2%	5.0%	10.0%	8.0%	10.0%	2.2%
Actual Pension Asset Allocation	26.0%	25.0%	6.9%	6.9%	4.7%	10.2%	8.5%	10.2%	1.8%



INSURANCE: Asset Allocation Board Policy vs. Actual as of June 30, 2016

Asset	U.S. Equity	International Equity	Global Fixed	Credit Fixed	Real Estate	Absolute Return	Real Return	Private Equity	Cash
Policy's Insurance Asset Allocation	26.5%	26.5%	6.0%	6.0%	5.0%	10.0%	8.0%	10.0%	2.0%
Actual Insurance Asset Allocation	28.9%	26.0%	6.3%	5.9%	5.0%	9.7%	8.3%	8.1%	1.8%





INVESTMENT STRATEGIES

Investment Policies

Visit <https://kyret.ky.gov/investments> to read our Statement of Investment policy. Other policies include Brokerage, Securities Trading, Placement Agents, Proxy Voting and more.

Diversification

KRS portfolios are diversified on several levels. Portfolios are diversified through the use of multiple asset classes. Asset allocations are revisited on a periodic basis and represent an efficient allocation to achieve overall return and risk characteristics. The individual asset classes are diversified through the use of multiple portfolios that are managed both by the Investment Division Staff and by external investment advisors. Finally, portfolios within each of the asset classes are diversified through both investment styles and the selection of individual securities. Each portfolio advisor is afforded discretion to diversify its portfolio(s) within the parameters established by the KRS Board.

Rebalancing

Proper implementation of the investment policy requires that a periodic adjustment, or rebalancing, of assets be made to ensure conformance with KRS' Statement of Investment Policy target levels. Such rebalancing is necessary to reflect sizeable cash flows and performance imbalances among asset classes and investment advisors. KRS' rebalancing policies call for an immediate rebalancing to within its allocation ranges if an asset class exceeds or falls below its target allocation by an appropriate percentage defined in the Investment Policy Statement. As the following charts depict, the Pension and Insurance portfolios were operating within the ranges established by the Investment Policies.

Investments Performance Review Procedures

At least once each quarter, the Investment Committee, on behalf of the KRS Board, reviews the performance of the portfolio for determination of compliance with the Statement of Investment Policy. The Investment Committee also reviews a report created and presented by the KRS Compliance Officer who is part of the independent Internal Audit Department. The Compliance Officer performs tests daily, monthly, and quarterly to assure compliance with the restrictions imposed by the Investment Policy.

Investment Consulting

The Board employs industry leading external consultants to assist in determining and reviewing the asset allocation guidelines. Consultants also provide performance of both the internally managed and externally managed assets. A letter from each consulting firm utilized follows this introduction and discusses current allocations, performance, and significant changes during the fiscal year.



INVESTMENT OBJECTIVES

The investment objectives of the portfolios are to produce results that exceed the stated goals over both short-term and long-term periods.

- **Shorter-Term** (*5 years and less*): The returns of the particular asset classes of the managed funds of the Systems, measured on a year-to-year basis, should exceed the returns achieved by a policy benchmark portfolio composed of comparable unmanaged market indices.
- **Medium-Term** (*5 to 30 years*): The returns of the particular asset classes of the managed funds of the Systems, measured on a rolling year basis, should exceed the returns achieved by a policy benchmark portfolio composed of comparable unmanaged market indices and perform above median in an appropriate peer universe, if there is one.
- **Longer-Term**: The total assets of the Systems should achieve a return measured over 30 to 40 years which exceeds the actuarially required rate of return of 7.5% while also exceeding the return achieved by its total fund benchmark. During the early part of 2016, the KRS Board elected to lower the actuarial required rate of return for KERS and SPRS to 6.75%.

In keeping with the KRS Board' fiduciary responsibility, where all else is equal, the Board encourages the investment of the Systems' assets in securities of corporations that provide a positive contribution to the economy of the Commonwealth of Kentucky.

Investing in Kentucky

In keeping with the KRS Board' fiduciary responsibility, where all else equal, the Board encourages the investment of the Systems' assets in securities of corporations that provide a positive contribution to the economy of the Commonwealth of Kentucky.

Investment Results

Returns reported by KRS are “net.” For the purposes of this report, total fund return information is net of fees with audited data beginning in July 2011. At the manager or individual account level, returns are net of fees beginning with July 2011, and gross of fees for prior historical data.

Note: Returns reported by KRS are “net.” For the purposes of this report, total fund return information is net of fees and expenses, with audited data beginning in July 2011. At the manager or individual account level, returns are net of fees beginning with July 2011, and gross of fees for prior historical data.

Fiscal Year 2016 Results

For the fiscal year ended June 30, 2016, the KRS pension fund produced a net return of -0.52%, underperforming its benchmark return of -0.19%, as well as the actuarially required rate of return of 7.5% for all plans except the KERS and SPRS systems in the Pension Fund which use a 6.75% rate. It should be noted that the actuarially required rate is an annualized return that may not be met, or possibly greatly surpassed in any given year; this objective has been met over the long-term.

The underperformance of the pension fund can primarily be attributed to relative weak performance in the non-U.S. Equity and Absolute Return / Hedge Fund spaces, combined with relative underperformance within several asset classes. Our Real Estate, Fixed Income, and Private Equity investments were all positive contributors to portfolio returns during the fiscal year.

The KRS insurance fund performance was -0.09% net of expenses for the fiscal year ending June 30, 2016, compared to the benchmark’s 0.03% return and the actuarially required rate of 7.5%. The insurance fund suffered from the same root causes of underperformance as the pension fund: primarily the underperformance of its investments in the Absolute Return and Non-U.S. Equity sectors.

INVESTMENT RESULTS TABLE

Pension Fund Total Return¹

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
KRS Total Pension Fund	Apr-84	-0.52%	5.45%	5.38%	5.02%	9.03%
Performance Benchmark ²	-	-0.19%	5.61%	5.74%	5.41%	9.17%

Insurance Fund Total Return¹

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
KRS Total Insurance Fund	Apr-87	-0.09%	5.35%	4.79%	4.28%	7.21%
Performance Benchmark ³	-	0.03%	5.88%	5.80%	4.83%	7.61%

¹The Performance Calculations presented above were prepared by the Systems’ custodial bank using a time-weighted rate of return methodology based upon the Fair Value of assets.

²Current Policy Benchmark is comprised of 26.5% Russell 3000, 26.5% MSCI ACWI ex-U.S. IMI, 6.0% BC Universal, 6.0% BC U.S. High Yield, 5.0% NCREIF ODCE, 10.0% HFRI Diversified FOF, 8.0% Custom – Allocation Specific, 10.0% Actual Performance, and 2.0% CG 3-Month U.S. Treasury Bill.

³Current Policy Benchmark is comprised of 26.5% Russell 3000, 25.2% MSCI ACWI ex-U.S. IMI, 6.8% BC Universal, 7.2% BC U.S. High Yield, 5.0% NCREIF ODCE, 10.0% HFRI Diversified FOF, 8.0% Custom – Allocation Specific, 10.0% Actual Performance, and 2.2% CG 3-Month U.S. Treasury Bill.

Net Returns By System - Pension Fund *(in Millions)*

Plan	Market Value	% of Total	1 Year		3 Years		5 Years		GANIR	10 Years		Inception	
			KRS	Index	KRS	Index	KRS	Index		KRS	Index	KRS	Index
KERS Non-Hazardous	\$1,921.52	17.9%	-0.68	0.71	5.51	5.75	5.41	5.82	5.10	5.04	5.45	9.03	9.18
KERS Hazardous	525.79	4.9%	-0.24	-0.61	5.53	5.35	5.43	5.58	5.32	5.05	5.33	9.03	9.14
CERS Non-Hazardous	6,099.38	56.7%	-0.53	-0.66	5.42	5.32	5.36	5.56	5.16	5.01	5.32	9.02	9.14
CERS Hazardous	1,996.67	18.6%	-0.38	-0.66	5.47	5.33	5.39	5.57	5.34	5.03	5.32	9.03	9.14
SPRS	207.73	1.9%	-1.49	-0.31	5.09	5.43	5.16	5.63	5.10	4.91	5.35	8.99	9.15
Total	\$10,751.09	100.0%	-0.52	-0.19	5.45	5.61	5.38	5.74		5.02	5.41	9.03	9.17

Net Returns By System - Insurance Fund *(in Millions)*

Plan	Market Value (Millions)	% of Total	1 Year		3 Years		5 Years		10 Years		Inception	
			KRS	Index	KRS	Index	KRS	Index	KRS	Index	KRS	Index
KERS Non-Hazardous	\$655.96	15.6%	-0.50	-0.56	4.90	5.40	4.52	5.51	4.15	4.69	7.16	7.56
KERS Hazardous	435.81	10.4%	-0.25	-0.38	5.36	5.51	4.80	5.58	4.29	4.72	7.21	7.57
CERS Non-Hazardous	1,897.66	45.2%	-0.04	-0.25	5.44	5.59	4.85	5.62	4.31	4.75	7.22	7.58
CERS Hazardous	1,050.42	25.0%	0.09	-0.24	5.48	5.59	4.87	5.63	4.32	4.75	7.22	7.58
SPRS	160.10	3.8%	0.01	-0.22	5.44	5.61	4.85	5.64	4.31	4.75	7.22	7.58
Total	\$4,199.95	100.0%	-0.09	0.03	5.35	5.88	4.79	5.80	4.28	4.83	7.21	7.61

BENCHMARKS

Benchmarks utilized to measure the Kentucky Retirement Systems' Pension and Insurance Funds are a weighted average composite of the various asset class indexes consisting within each KRS' investment portfolio. The Total Fund Benchmarks are shown below:

Total Fund Benchmarks		
Index	Pension Fund	Insurance Fund
Russell 3000	26.6 %	26.5%
MSCI ACWI ex US IMI	26.2%	25.5%
Barclays Capital U.S. Universal	6.8%	6.0%
Barclays Capital U.S. High Yield	7.2%	6.0%
NCREIF Open-End Diversified Core GR	5.0%	5.0%
HFR FOF: Diversified	10.0%	10.0%
Custom - Allocation Specific	8.0%	8.0%
Russell 3000 Quarter Lagged + 400 bps	10.0%	10.0%
CG 3-Mo U.S. Treasury Bill	2.2%	2.0%

These benchmarks are intended to be objective, measurable, investable/replicable, and representative of the investment mandates. The benchmarks are developed from publicly available information, and accepted by the investment advisor and KRS as the neutral position consistent with the investment mandate and status. KRS' Investment Staff and Consultant recommend the indexes and benchmarks, which are reviewed and approved by the Investment Committee and ratified by the KRS Board. It is anticipated that as KRS continues to diversify through other markets and asset classes, both the Pension and Insurance Fund Total Benchmarks will evolve to reflect these exposures.

Note: KRS uses the Modified Dietz Method as its basis for calculations, which is used to determine the performance of an investment portfolio based on a time-weighted cash flow.



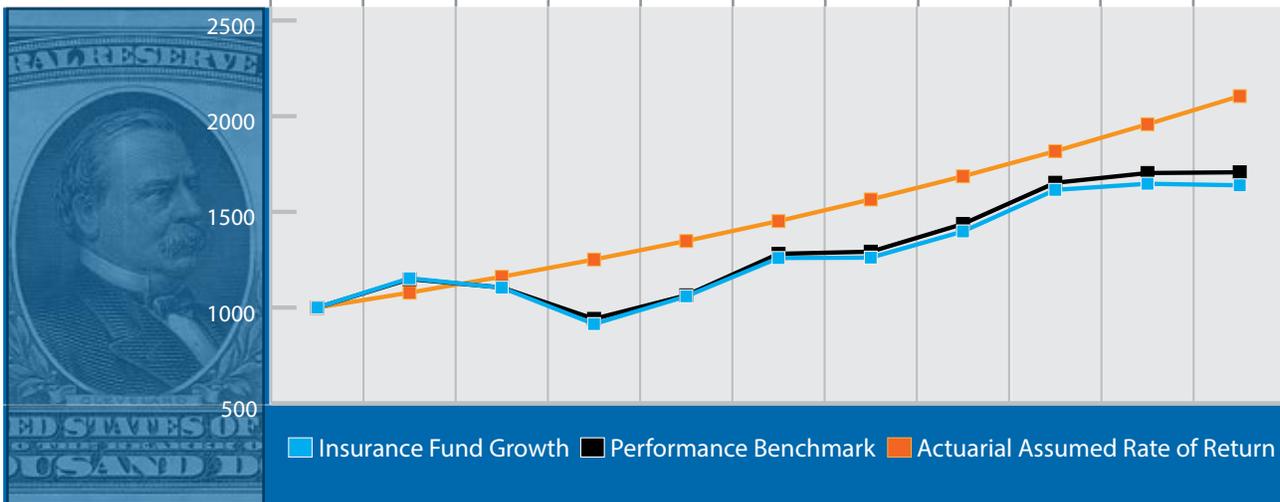
Long-Term Results:

As of June 30, 2016, the KRS pension fund portfolio earned an annualized total net return of -0.52% versus the benchmark annualized return of -0.19%. Performance over the long-term can best be illustrated using a growth of dollar chart. The graph below demonstrates the performance of \$1,000 invested in the KRS pension portfolio, its policy benchmark portfolio, and its actuarial objective over the past 10 years.

As of June 30, 2016, the chart indicates that \$1,000 would have grown to \$1,639, while the same \$1,000 invested in the benchmark or in the actuarial objective would have grown to \$1,707 and \$2,105, respectively.

Total Pension Fund Growth of \$1,000

Portfolio	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pension Fund Growth	1,000	1,153	1,104	914	1,059	1,259	1,261	1,398	1,615	1,647	1,639
Performance Benchmark	1,000	1,149	1,105	941	1,064	1,281	1,292	1,437	1,652	1,703	1,671
Actuarial Assumed Rate of Return	1,000	1,078	1,161	1,251	1,348	1,452	1,565	1,686	1,817	1,958	2,105

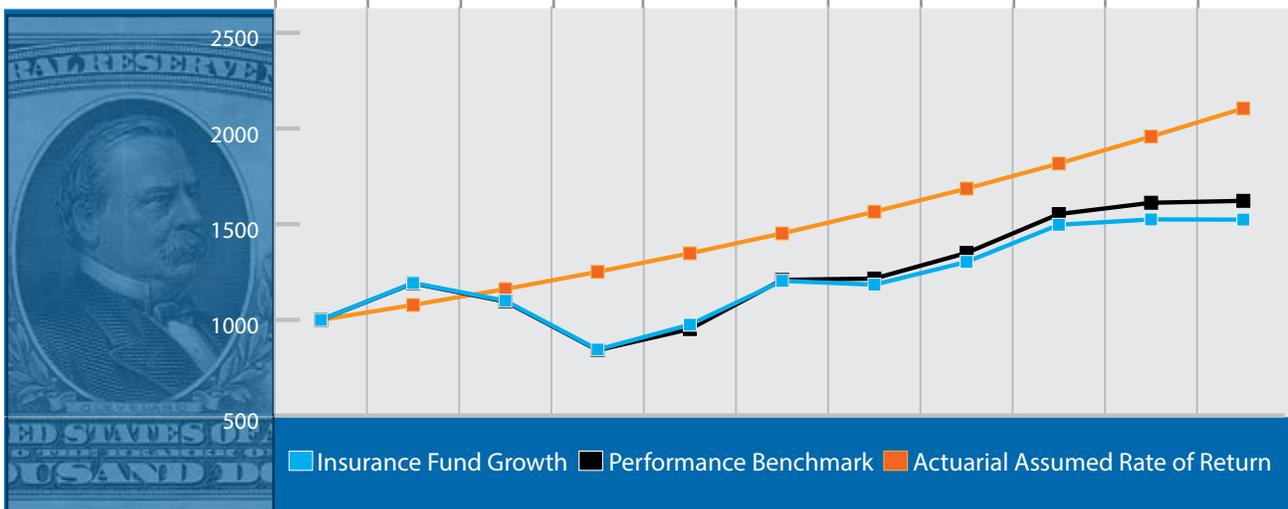




As of June 30, 2016, the KRS insurance fund portfolio earned an annualized total net return of -0.09% versus the benchmark annualized return of 0.03%. Performance over the long-term can best be illustrated using a growth of dollar chart. The graph below demonstrates the performance of \$1,000 invested in the KRS pension portfolio of \$1,524, its policy benchmark portfolio of \$1,622, and its actuarial objective of \$2,105 over the past 10 years.

Total Insurance Fund Growth of \$1,000

Portfolio	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Insurance Fund Growth	1,000	1,193	1,100	845	975	1,204	1,184	1,303	1,497	1,525	1,524
Performance Benchmark	1,000	1,191	1,096	842	952	1,209	1,216	1,350	1,553	1,612	1,613
Actuarial Assumed Rate of Return	1,000	1,078	1,161	1,251	1,348	1,452	1,565	1,686	1,817	1,958	2,105



U.S. Equity

For the fiscal year ending June 30, 2016, the KRS pension fund's U.S. equity portfolio posted a return of 1.44%, versus the benchmark return of 2.14%. The KRS insurance U.S. equity portfolio posted a return of 2.31%, compared to the benchmark return of 2.14%.

Since inception, performance remains sound; the pension's equity portfolio has generated an annualized return of 11.07% throughout its duration, while the benchmark posted an annualized annual return of 11.07%. The insurance fund has returned 9.22% since inception, while the benchmark returned 9.05%.

Return on U.S. Equity

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Apr-84	1.44%	10.34%	10.73%	7.13%	11.07%
↘ Performance Benchmark ¹	-	2.14%	11.13%	11.60%	7.42%	11.07%
Insurance Fund	Jul-92	2.31%	10.61%	10.85%	7.09%	9.22%
↘ Performance Benchmark ¹	-	2.14%	11.13%	11.60%	7.38%	9.05%
Market Indices						
Russell 1000 (Large Cap)	-	.56%	10.80%	10.90%	8.07%	13.26%
Russell 2000 (Small Cap)	-	-6.73%	7.09%	8.35%	6.20%	11.30%
Russell 3000 (Total Equity)	-	2.14%	11.13%	11.60%	7.40%	11.63%

¹ Pension and Insurance benchmark is the Russell 3000; effective July 1, 2011.

Top 10 U.S. Equity Holdings Pension Fund

Company	Shares	Fair Value
APPLE INC	571,597	54,644,673
MICROSOFT CORP	864,831	44,253,402
JOHNSON & JOHNSON	314,209	38,113,552
EXXON MOBIL CORP	382,634	35,868,111
FACEBOOK INC	271,086	30,979,708
VERIZON COMMUNICATIONS INC	531,000	29,651,040
BERKSHIRE HATHAWAY INC	198,485	28,738,643
AT&T INC	636,093	27,485,579
AMAZON.COM INC	36,518	26,133,011
GENERAL ELECTRIC CO	812,179	25,567,395

Top 10 U.S. Equity Holdings Insurance Fund

Company	Shares	Fair Value
APPLE INC	246,293	23,545,611
MICROSOFT CORP	375,849	19,232,193
EXXON MOBIL CORP	176,263	16,522,894
JOHNSON & JOHNSON	122,163	14,818,372
AMAZON.COM INC	17,068	12,214,202
BERKSHIRE HATHAWAY INC	84,333	12,210,575
FACEBOOK INC	104,066	11,892,662
GENERAL ELECTRIC CO	371,292	11,688,272
WELLS FARGO & CO	244,749	11,583,970
VERIZON COMMUNICATIONS INC	204,245	11,405,041

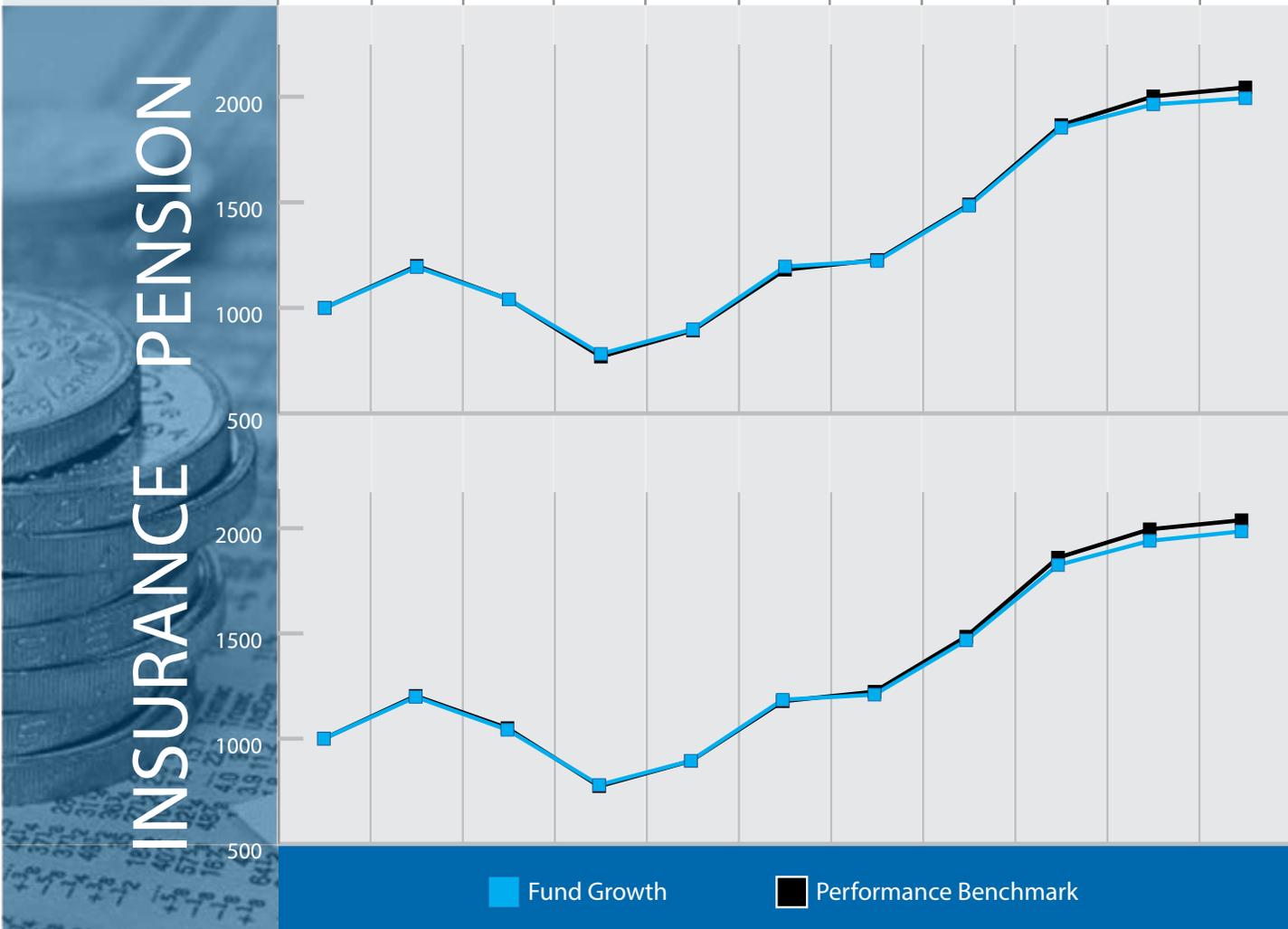
Total 4,618,632 \$341,435,114

Total 1,946,321 \$145,113,792

The relative performance is best illustrated again by the growth of a dollar chart. For the 10-year period ending June 30, 2016, the pension fund's chart indicates that \$1,000 would have resulted in \$1,993 while the same \$1,000 invested in the benchmark would result in \$2,044. For the KRS insurance fund, ending June 30, 2015, a \$1,000 investment would be valued at \$1,985, compared to \$2,038 in the benchmark.

Growth of \$1,000 - U.S. Equity Portfolio

Portfolio	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pension Fund Growth	\$1,000	\$1,193	\$1,040	\$782	\$899	\$1,196	\$1,222	\$1,484	\$1,853	\$1,964	\$1,993
↘ Performance Benchmark	\$1,000	\$1,199	\$1,040	\$769	\$893	\$1,181	\$1,227	\$1,490	\$1,866	\$2,002	\$2,044
Insurance Fund Growth	\$1,000	\$1,198	\$1,042	\$780	\$895	\$1,185	\$1,209	\$1,467	\$1,825	\$1,940	\$1,985
↘ Performance Benchmark	\$1,000	\$1,203	\$1,050	\$774	\$894	\$1,178	\$1,223	\$1,485	\$1,860	\$1,995	\$2,038



International Equity

For the fiscal year, ending June 30, 2016, the KRS pension fund's international equity portfolio fell -8.47%, compared to its benchmark of -9.72%, providing 125 basis points of downside protection. The KRS insurance international equity portfolio returned -8.63% versus its benchmark of -9.72% during the same twelve month period. Though international equities experienced negative absolute returns during the fiscal year, both funds experience positive relative outperformance as the accompanying table indicates.

International equity investors have experienced a volatile period of returns over the past several years, as a result of geopolitical issues, the collapse of commodity prices, and the currency exchange rate. Over the past five years both funds have underperformed their respective benchmarks. The KRS Pension and Insurance funds have posted annualized returns for the period of 0.45% and 0.27% respectively, compared to the benchmark's return of 0.58%. The Systems began their international equity program in 2000. Since inception, the pension international equity portfolio has underperformed the benchmark, while the insurance international equity portfolio has outperformed the benchmark.

Return on International Equity

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Jul-00	-8.47%	2.09%	0.45%	1.99%	1.83%
▼ Performance Benchmark ¹	-	-9.72%	1.65%	0.58%	1.92%	2.28%
Insurance Fund	Apr-00	-8.63%	1.95%	0.27%	1.95%	1.84%
▼ Performance Benchmark ¹	-	-9.72%	1.65%	0.58%	1.57%	1.35%
Market Indices						
MSCI ACWI Ex US	-	-11.71%	-1.21%	-3.44%	3.88%	10.56%
MSCI Emerging Markets	-	-9.80%	1.62%	.56%	2.33%	5.58%

¹Pension and Insurance benchmark is the MSCI ACWI ex-US; effective July 1, 2011.

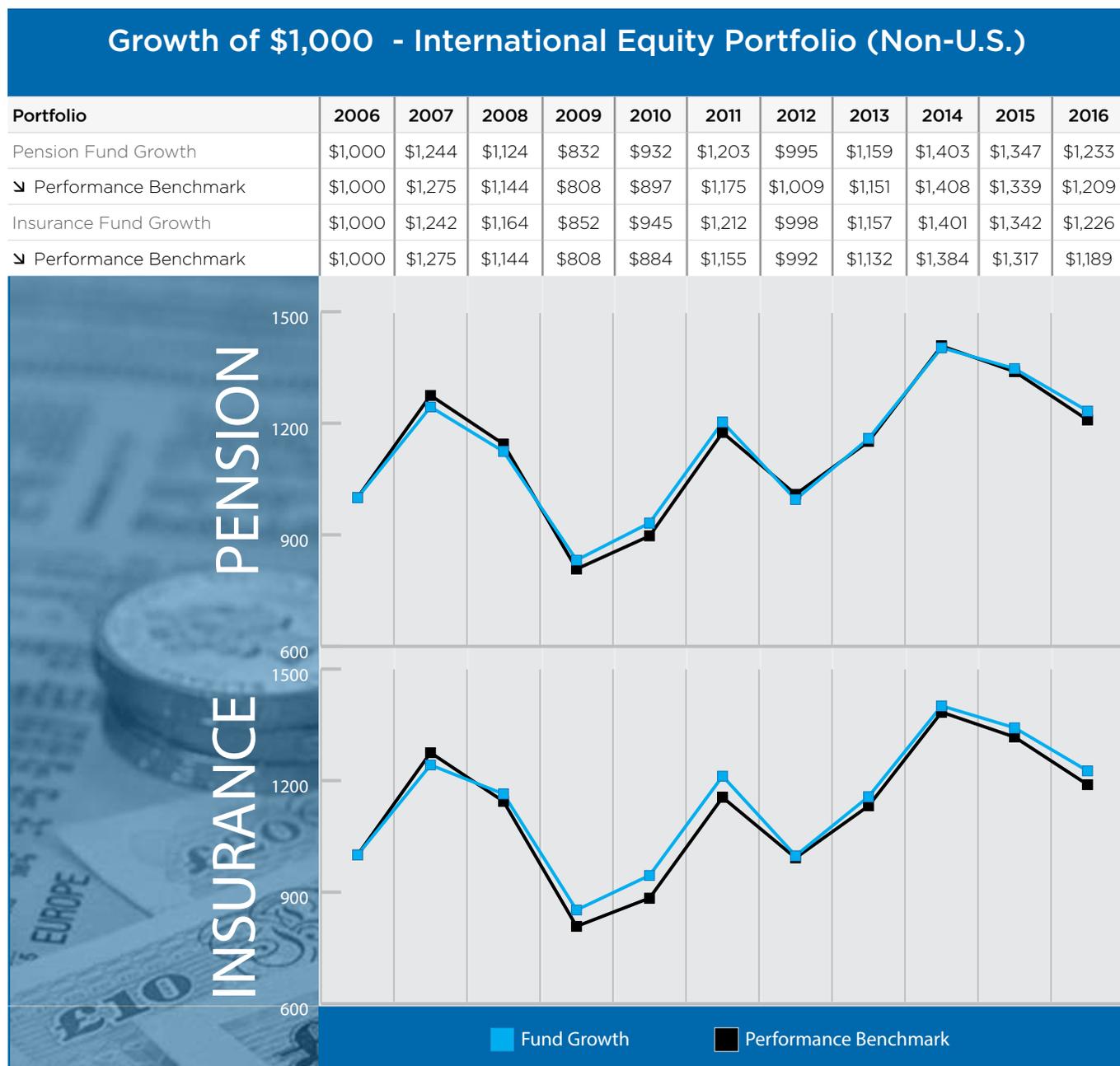
Top 10 International Equity Holdings Pension Fund

Company	Shares	Fair Value
SHIRE PLC	354,656	\$22,003,173
SYMRISE AG	304,430	20,681,328
WORLDPAY GROUP PLC	5,675,854	20,615,188
TOTA SA	414,489	19,975,473
RECKITT BENCKISER GRP PLC	196,784	19,703,258
ROCHE HOLDING AG	73,250	19,256,133
WOLSELEY PLC	305,260	15,792,370
DAIWA HOUSE INDUSTRY CO LTD	471,000	13,690,633
LONDON STOCK EXCHANGE GROUP PL	387,808	13,121,254
AIA GROUP LTD	2,152,200	12,858,354
Total	10,335,731	\$177,697,164

Top 10 International Equity Holdings Insurance Fund

Company	Shares	Fair Value
TOTAL SA	185,494	\$8,939,514
SHIRE PLC	134,142	8,322,289
WORLDPAY GROUP PLC	2,197,481	7,981,435
SYMRISE AG	115,575	7,851,541
ROCHE HOLDING AG	29,360	7,718,226
RECKITT BENCKISER GRP PLC	76,569	7,666,572
WOLSELEY PLC	120,350	6,226,206
AIA GROUP LTD	879,400	5,253,990
LONDON STOCK EXCHANGE GROUP PL	148,329	5,018,624
DAIWA HOUSE INDUSTRY CO LTD	168,600	4,900,723
Total	4,055,300	\$69,879,121

The following chart depicts the growth of \$1,000 invested in the KRS international equity portfolios and the blended benchmarks since the beginning of the 2006 fiscal year. For the KRS pension fund ending June 30, 2016, \$1,000 would have resulted in \$1,233, while the same amount invested in the benchmark would have resulted in \$1,209. For the KRS insurance fund, ending June 30, 2016, \$1,000 would have grown to \$1,226, while an investment in the index would have been valued at \$1,189.



The non-U.S. equity portfolio included emerging market equity exposure from 03/31/08 through 06/30/11; a separate growth of a dollar chart for the emerging market equity asset class will be produced once the Systems have experienced a sufficient history within the space. In addition, the non-U.S. equity portfolio growth chart includes the currency overlay for the 2012 fiscal year; in prior years the impact of the currency overlay program was rolled up into the aggregate return of the funds. The Systems no longer employ a currency overlay mandate.

Fixed Income

For the fiscal year ending June 30, 2016, the KRS pension fund's fixed income portfolio returned 4.76% versus to the benchmark return of 7.53%. As the accompanying table indicates, both of the broad market indices, the Barclays Aggregate Index and the Barclays U.S. Universal Index, posted 6.0% and 8.62% respectively for the twelve month period ending June 30, 2016, while the Barclays High Yield Index provided lower returns. The KRS insurance fixed income portfolio posted a 5.11% rate of return, which underperformed the index by 242 basis points.

Over the five year period, the pension fund and the insurance fund slightly outpaced the benchmark. Over the ten year period, the pension fund and insurance funds have both essentially equaled the benchmark return.

Return on Fixed Income

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Apr-84	4.76%	4.39%	4.74%	5.49%	7.72%
↘ Performance Benchmark ¹	-	7.53%	4.76%	4.35%	5.50%	7.54%
Insurance Fund	Jul-92	5.11%	3.90%	4.41%	5.60%	6.55%
↘ Performance Benchmark ¹	-	7.53%	4.76%	4.35%	5.58%	6.50%
Market Indices						
BC Aggregate	-	6.00%	4.06%	3.76%	5.13%	7.71%
BC Corporate High Yield	-	1.62%	4.18%	5.84%	7.56%	8.94%
BC U.S. Universal	-	8.62%	2.82%	1.89%	4.50%	4.59%

¹Pension and Insurance benchmark is the Barclays US Universe and the Barclays US High Yield; this became effective July 1, 2016.

Top 10 Fixed Income Holdings Pension Fund

Company	Par Value	Fair Value
MARATHON BLUEGRASS LP	189,233,986	189,233,986
CERBERUS KRS LEVERED LOAN OPP	87,445,902	87,445,902
EB TEMP IVN FD VAR RT 12/31/49 FEE CL 12	12,455,807	12,455,807
U S TREASURY NOTE 1.375% 10/31/2020 DD 10/31/15	8,115,000	8,261,768
U S TREASURY NOTE 1.625% 07/31/2020 DD 07/31/15	7,485,000	7,696,975
EB TEMP IVN FD VAR RT 12/31/49 FEE CL 12	7,207,333	7,207,333
GOVERNMENT OF CANADA 1.500% 01-FEB-2017 SER B600	8,320,000	6,442,346
U S TREASURY NOTE 0.875% 07/15/2018 DD 07/15/15	6,245,000	6,278,667
PHILIPPINE GOVERNMENT BOND 8.000% 07/19/2031	192,600,000	6,129,267
SINGAPORE GOVERNMENT BOND 3.250% 09/01/2020	7,605,000	6,084,452
Total	\$526,713,028	\$337,236,503

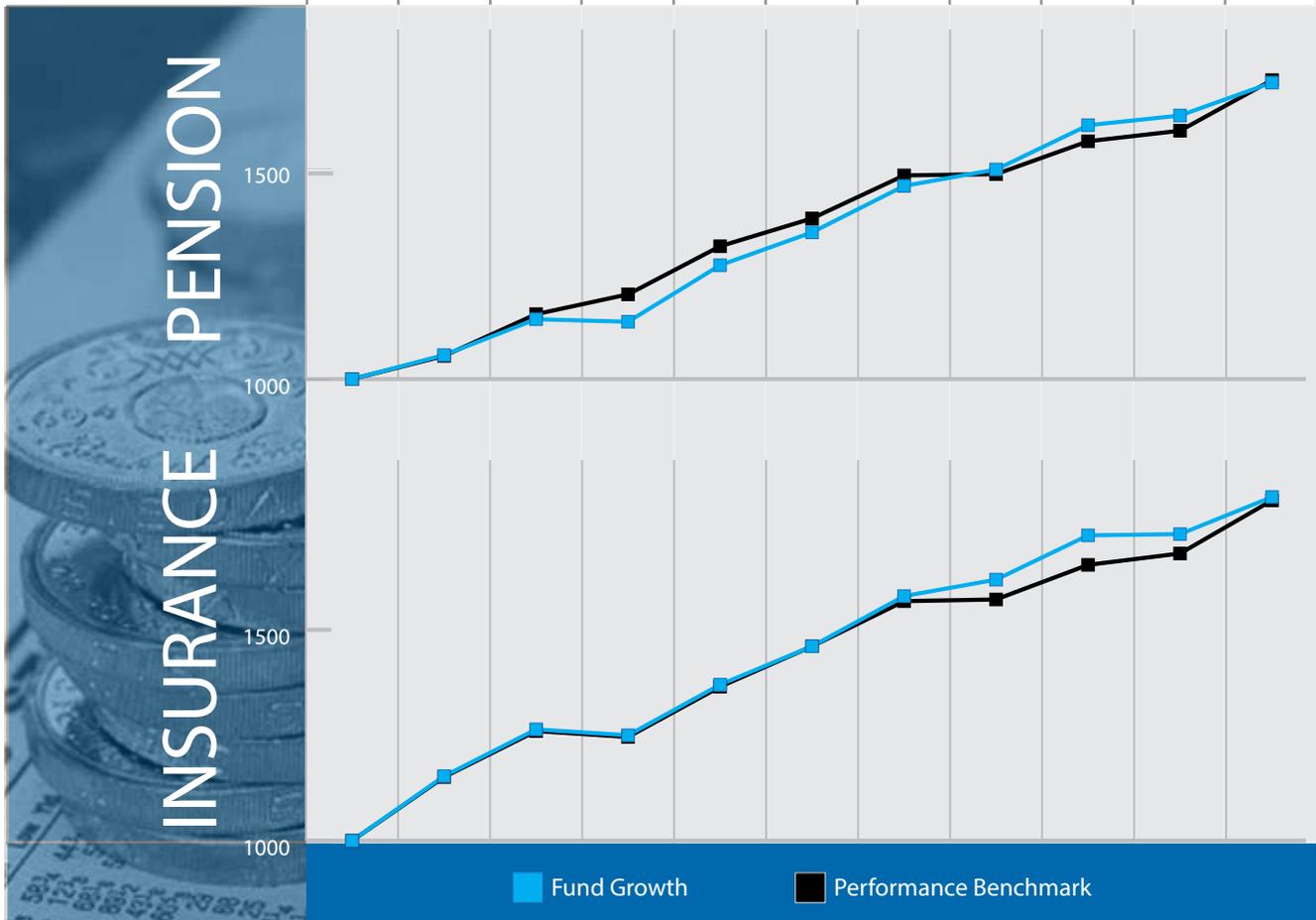
Top 10 Fixed Income Holdings Insurance Fund

Company	Par Value	Fair Value
MARATHON BLUEGRASS LP	77,482,777	77,482,777
CERBERUS KRS LEVERED LOAN OPP	37,476,815	37,476,815
EB TEMP IVN FD VAR RT 12/31/49 FEE CL 12	6,415,726	6,415,726
EB TEMP IVN FD VAR RT 12/31/49 FEE CL 12	2,569,795	2,569,795
PHILIPPINE GOVERNMENT BOND 8.000% 07/19/2031	75,640,000	2,407,154
GOVERNMENT OF CANADA 1.500% 01-FEB-2017 SER B600	3,060,000	2,369,421
VENTURE IX CDO LTD 9A E 144A VAR RT 10/12/2021 DD 09/27/07	2,297,000	2,233,235
U S TREASURY NOTE 1.625% 07/31/2020 DD 07/31/15	2,095,000	2,154,330
SINGAPORE GOVERNMENT BOND 3.250% 09/01/2020	2,645,000	2,116,157
SINGAPORE GOVERNMENT BOND 2.375% 04/01/2017	2,775,000	2,086,619
Total	\$212,457,113	\$137,312,029



Growth of \$1,000 - Fixed Income Portfolio

Portfolio	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pension Fund Growth	\$1,000	\$1,057	\$1,142	\$1,136	\$1,270	\$1,348	\$1,458	\$1,497	\$1,602	\$1,625	\$1,703
▾ Performance Benchmark	\$1,000	\$1,055	\$1,154	\$1,201	\$1,315	\$1,381	\$1,483	\$1,486	\$1,564	\$1,589	\$1,709
Insurance Fund Growth	\$1,000	\$1,153	\$1,264	\$1,250	\$1,370	\$1,461	\$1,580	\$1,619	\$1,724	\$1,727	\$1,815
▾ Performance Benchmark	\$1,000	\$1,151	\$1,260	\$1,246	\$1,365	\$1,461	\$1,568	\$1,572	\$1,654	\$1,681	\$1,807



a The fixed income portfolio included US TIPS exposure prior to the 2012 fiscal year; the exposure was moved to the real return asset class as part of the new asset allocation rebalance that took place effective 07/01/12. A separate growth of a dollar chart for the real return asset class will be produced once the Systems have experienced a sufficient history within the space.



Private Equity

For the fiscal year ending June 30, 2016, the KRS pension fund's private equity portfolio posted a return of 5.46%; the portfolio consists primarily of investments within private equity limited partnerships. The insurance private equity portfolio returned 10.59%. During the prior fiscal year it was decided that the short-term benchmark (1-, 3-, & 5-year) would match the actual performance experienced by the portfolios due to the difficulty in assessing short term returns. Performance is typically based on appraisals of a business' value, and managers are often slow to mark valuations up or down, which can distort relative performance against a public market benchmark when that index moves dramatically. A better indication of the health of the program would be the mid- to longer-term time periods. This is because businesses have likely been sold and transacted at a true price (rather than estimate of value), thus providing a better performance measurement.

For the five years ending June 30, 2016, the pension and insurance funds' private equity portfolios returned 12.36% and 15.65%, respectively. For the ten year period, the pension fund trailed its benchmark by 264 base points, while the insurance fund also underperformed by 26 basis points. Since its inception in October 1990, the pension portfolio has outpaced its benchmark by an annualized 57 basis points per year, while the insurance portfolio has slightly underperformed its benchmark since its July 2001 inception.

Return on Private Equity

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Oct-90	5.46%	12.36%	12.20%	7.59%	10.83%
⌵ Performance Benchmark ¹		5.46%	12.36%	12.20%	10.23%	10.26%
Insurance Fund	Jul-01	10.59%	15.65%	13.78%	9.32%	9.53%
⌵ Performance Benchmark ¹		10.59%	15.65%	13.78%	9.58%	9.61%

¹Pension and Insurance benchmark 5 years and beyond is the Russell 3000 Quarter Lagged + 400bps. For shorter-term periods, the benchmark matches actual performance experienced.

Real Estate

For the fiscal year ending June 30, 2016, the KRS pension fund's real estate portfolio gained 9.20%, trailing its benchmark return of 12.62%. The KRS insurance real estate portfolio also fell short of the benchmark, returning 9.75% compared to 12.62%. For the five years ending June 30, 2016, both the pension and insurance fund portfolios underperformed the benchmark's return by 329 basis points and 369 basis points, respectively.

Return on Real Estate¹

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Jul-84	9.20%	8.37%	8.91%	6.35%	5.83%
↘ Performance Benchmark ¹		12.62%	12.59%	12.20%	5.38%	6.41%
Insurance Fund	May-09	9.75%	8.20%	8.51%	--	8.79%
↘ Performance Benchmark ¹		12.62%	12.59%	12.20%	--	5.63%

¹Pension and Insurance benchmark is the NCREIF Open-End Diversified Core Gross Non Lagged.

Absolute Return

For the fiscal year, ending June 30, 2016, the KRS pension fund's absolute return portfolio was -6.26% versus its benchmark which was -5.52%. The KRS insurance absolute return portfolio returned -6.17%, while the benchmark was -5.52% for the period. For the five years ending June 30, 2016 the pension and insurance portfolios outperformed their respective benchmarks. Since inception, the Pension and Insurance Portfolio has outperformed the benchmark by 135 basis points and 128 basis points respectively. The portfolio is comprised of three fund of funds, and 18 direct relationships.

Return on Absolute Return

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Apr-10	-6.26%	2.36%	3.93%	--	3.73%
↘ Performance Benchmark ¹		-5.52%	1.73%	1.66%	--	2.38%
Insurance Fund	Apr-10	-6.17%	2.38%	3.91%	--	3.66%
↘ Performance Benchmark ¹		-5.52%	1.73%	1.66%	--	2.38%

¹Pension and Insurance benchmark is the HFR FOF: Diversified Lagged.

Real Return

For the fiscal year ending June 30, 2016, the KRS pension fund's real return portfolio returned 1.13% versus its benchmark return of 2.10%. The KRS insurance real return portfolio posted a return of 1.52%, while the benchmark returned 2.57% for the period. Over the past three years, the pension and insurance real return portfolios have outperformed their respective benchmarks by 49 and 31 basis points.

Return on Real Return

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Jul-11	1.13%	1.91%	3.31%	--	3.31%
↘ Performance Benchmark ¹		2.10%	1.42%	2.65%	--	2.65%
Insurance Fund	Jul-11	1.52%	1.93%	3.11%	--	3.11%
↘ Performance Benchmark ¹		2.57%	1.62%	2.78%	--	2.78%

¹Pension and Insurance benchmark is CPI + 300 base points

Top 10 Alternatives Asset Holdings Pension Fund

Company	SUB ASSET	Fair Value
DANIEL BOONE LLC	ABS RET	329,947,373
PIMCO ALL ASSET FUND-INST	REAL RET	317,862,013
BLACKSTONE HENRY CLAY FUND LLC	ABS RET	308,340,871
NEWPORT COLONELS LLC	ABS RET	143,807,851
DAG VENTURES IV LP	PVT EQ	90,485,657
BAY HILLS EMERGING PARTNERS II LP	PVT EQ	84,151,688
STOCKBRIDGE FUND LP	REAL EST	78,096,435
HARRISON STREET CORE PROPERTY FUND LP	REAL EST	73,124,850
H/2 CREDIT PARTNERS LP	REAL EST	72,997,928
MAGNETAR MTP	REAL RET	69,566,438
Total		\$1,568,381,104

Top 10 Alternatives Asset Holdings Insurance Fund

Company	SUB ASSET	Fair Value
DANIEL BOONE LLC	ABS RET	130,875,420
BLACKSTONE HENRY CLAY FUND LLC	ABS RET	121,503,696
PIMCO ALL ASSET FUND-INST	REAL RET	104,062,433
NEWPORT COLONELS LLC	ABS RET	54,157,786
BLACKSTONE CAPITAL PARTNERS VI	PVT EQ	37,757,933
STOCKBRIDGE FUND LP	REAL EST	31,581,045
MESA WEST CORE LENDING FUND LP	REAL EST	30,077,154
HARRISON STREET CORE PROPERTY FUND LP	REAL EST	28,798,042
VISTA EQUITY PARTNERS FUND IV LP	PVT EQ	28,616,458
H/2 CREDIT PARTNERS LP	REAL EST	28,388,083
Total		\$595,818,051



Cash

For the fiscal year, ending June 30, 2016, the KRS pension fund's cash portfolio returned 0.47%, outpacing its benchmark, the Citi Group 3-month Treasury, by 0.14%. The KRS insurance cash portfolio also outperformed the index, posting a return of 0.31% during the same 12 month period.

As the accompanying table indicates, the longer term results from the cash portfolios have also been excellent with compared to their benchmark. For the five years ending June 30, 2016, the pension fund portfolio has outperformed its custom benchmark by 0.30% on an annualized basis. Since its inception, the portfolio has exceeded its benchmark by 0.45% per year. The insurance portfolio has also done very well, exceeding its benchmark return over the five-year and since inception periods by 0.22% and 0.13%, respectively.

Return on Cash

Portfolio	Inception Date	Fiscal Year	3-Year	5-Year	10-Year	Inception
Pension Fund	Jan-88	0.47%	0.41%	0.36%	1.54%	3.75%
↘ Performance Benchmark ¹		0.14%	0.07%	0.06%	0.96%	3.30%
Insurance Fund	Jul-92	0.31%	0.25%	0.28%	1.28%	2.77%
↘ Performance Benchmark ¹		0.14%	0.07%	0.06%	0.96%	2.64%

¹Pension and Insurance benchmark is the Citi Group 3-month Treasury

Additional Schedules & Required Supplemental Information

Following are additional schedules which indicate the Investment Advisors employed along with the assets each of the firms manages for the Systems, external investment-related expenses incurred, portfolio summaries for each of the five pension and insurance plans, and commissions paid by the Systems as of year ended June 30, 2016.

Investment Advisors & Assets Under Management *(in Thousands)*

Advisor	Assets Under Management
American Century Investments, Kansas City, Kansas	460,321
AMERRA AG Fund II, New York, New York	46,804
Amerra-AGRI Holding	48,249
Anchorage Capital	20,000
Arbor Investments II, Chicago, Illinois	3,475
Arcano Capital, New York, New York	28,678
ARES SSF IV	6,644
Avenue Capital V, New York, New York	37
BAAM	421,020
Bay Hills Emerging Partners I, II, III, San Francisco, California	168,767
BDCM Oppt. Fund IV	17,845
BlackRock Global Investors, San Francisco, California	1,631,915
Blackrock GAO Fund	30,000
Blackstone Alternative Asset Management, New York, New York	-
Blackstone Capital Partners V & VI, New York, New York	117,500
Boston Company	1,689
BTG Pactual	7,027
Cerberus KRS LP	124,923
CM Growth I	13,890
Coatue Qual Ptrns	21,221
Columbia Asset Management, Minneapolis, Minnesota	291,271
Columbia Capital IV, Alexandria, Virginia	19,679
Crestview Partners II, III, New York, New York	64,765
CVC Capital Partners VI, London, England	12,795
DAG Ventures II, III, IV, V QP,	170,135
Davidson-Kempner LP	41,098
DB Private Equity	25,550
DCM VI LP	16,940
DivcoWest IV, San Francisco, California	30,888
DSAM Fund LP	19,979
Essex Woodland VIII, Palo Alto, California	24,414
Finisterre Global Op	25,000
Franklin Templeton, New York, New York	310,084
Glenview Institution	17,091

Investment Advisors & Assets Under Management *(in Thousands)*

Advisor	Assets Under Management
Greenfield Acquisition Partners VI, Westport, Connecticut	57,866
GTCR Golder Rauner IX, Chicago, Illinois	6,686
H/2 Core Real Estate Debt, Stamford, Connecticut	25,690
H/2 Credit Partners, Stamford, Connecticut	101,386
Harrison Street, Chicago, Illinois	101,923
Harvest Partners V & VI, New York, New York	52,593
HBK II, Dallas, Texas	41,399
Hellman & Friedman VI, New York, New York	6,395
H.I.G BIO Venture II, Miami, Florida	7,771
H.I.G. Capital Partners V, Miami, Florida	3,824
H.I.G. Venture Partners II, Miami, Florida	9,866
Horsley Bridge International V LLC, San Francisco, California	55,877
Institutional Venture Partners XI & XII, Menlo Park, California	11,954
Internal TIPS	208,431
Internal U.S. Mid Cap	422,971
Invesco, Atlanta, Georgia	190,732
JANA Partners - New York, NY	17,669
JW Childs Equity III, Boston, Massachusetts	-
Keyhaven Capital Partners, London, England	22,362
Knighthood Capital, New York, New York	18,684
KRS Internal Equity	21
Lazard Asset Management, New York, New York	640,752
Leonard Green & Partners, L.P., IV, V & VI, Los Angeles, California	119,697
Levine Leichtman V, Los Angeles, California	53,249
LibreMax Capital - New York, NY	20,135
Liquidalts H2O Force - Dublin, Ireland	14,497
Loomis, Sayles & Company, Boston, Massachusetts	142
LSV Asset Management, Chicago, Illinois	567,431
Lubert-Adler VII - Philadelphia, PA	28,871
Luxor Capital, New York, New York	13,486
Magnetar Capital MTP, Evanston, Illinois	107,363
Manulife Financial, Boston, Massachusetts	586,633
Marathon Bluegrass Credit Fund - New York, NY	268,664
Matlin Patterson Global Opportunities I, II, III, New York, New York	33,333
Merit Capital Partners IV, Chicago, Illinois	13,308
Mesa West Core Lending, Los Angeles, California	87,677
MHR Institutional Advisors III, New York, New York	1,696
Mill Road Capital, Greenwich, Connecticut	25,039
Myriad Opportunities - Dublin, Ireland	35,518
New Mountain Partners II & III, New York, New York	65,049
NISA Investment Advisors, St. Louis, Missouri	407,097
Non-U.S. Transition	2,498

Investment Advisors & Assets Under Management *(in Thousands)*

Advisor	Assets Under Management
Northern Trust Global Investors, Chicago, Illinois	446,692
Nuveen Real Asset - Chicago, IL	302,921
Oak Hill Partners II & III, New York, New York	34,679
Oberland Capital - New York, NY	5,687
OCM OPPS FD VIIB - Los Angeles, CA	678
Pacific Alternative Asset Management Company, Irvine, California	197,243
PIMCO, New Port Beach, California	388
PIMCO All-Asset - New York, NY	421,924
Pine River Capital, Minnetonka, MN	19,322
Prima Mortgage, New York, New York	-
Prisma Capital Partners, New York, New York	454,073
Prologis TUSL - San Francisco, CA	79,126
Pyramis Global Advisors, Boston, Massachusetts*	3,793
QMS Diversified Global - Durham, NC	20,359
River Road Asset Management, Louisville, Kentucky	192,547
Riverside Capital VI, New York, New York	33,689
Rubenstein PF II, Oakland, California	25,230
Internal S&P 500	2,302,684
Sasco Capital, Fairfield, Connecticut	61,974
Scopia PX LLC - New York, NY	18,955
Shenkman Capital, Stamford, Connecticut	123,898
Stockbridge, San Francisco, California	109,677
Stone Harbor Investments, New York, New York	-
Sun Capital Partners IV, Boca Raton, Florida	1,152
Systematic Financial Management, Teaneck, New Jersey	265,479
Taurus Mine Finance - Sydney Australia	11,500
Technology Crossover Ventures VI, Palo Alto, California	645
Tenaska Power Fund II, Omaha, Nebraska	1,448
Tortoise Capital, Leawood, Kansas	96,618
Tourbillon Global - New York, NY	33,887
Transition Account	21
Triton Fund IV, Frankfurt, Germany	14,621
Vantagepoint Venture IV, San Bruno, California	17,396
Vista Equity Partners III & IV, San Francisco, California	90,816
Walton Street Real Estate Fund VI & VII, Chicago, Illinois	69,539
Warburg Pincus IX & X, New York, New York	29,554
Waterfall Investment, New York, New York	176,116
Wayzata Investment Partners I, II, III, Wayzata, Minnesota	34,956
Westfield Capital, Boston, Massachusetts	149,292
Westwood Management, Dallas, Texas	133,776
Total	\$14,678,286

CONSULTANTS

Master Custodian & Performance Measurement

Bank of New York Mellon, New York, New York

Investment Consultants

ORG Real Property, Cleveland, Ohio

R.V. Kuhns & Associates, Portland, Oregon

Pension Consulting Alliance, Portland, Oregon

Albourne America, LLC, San Francisco, California

Schedule of Commissions Paid *(in Whole Dollars)*

Asset	Total Shares	Commissions Paid	Price per Share
U.S. Equities	61,789,417	\$1,572,365	\$0.025
	Total Value of Trades	Commissions Paid	As a % of Trade
Non-U.S. Equities	\$1,110,740,037	\$1,608,397	0.001%
Total Commissions Paid		\$3,180,761	

External Investment Expenses *(in Thousands)*

Pension Fund	Fees Paid	Share of Assets
Portfolio Management Expense	\$86,695	0.7970%
Custody Expense	944	0.0087%
Consultant	1,141	0.0105%
Total Pension Expense	88,780	0.8162%
Insurance Fund		
Portfolio Management Expense	33,358	0.7884%
Custody Expense	600	0.0142%
Consultant	428	0.0101%
Total Insurance Expense	\$34,386	0.8127%
Total Expenses	\$123,167	0.8152%



External Investment Expense - Asset Class/Type Breakdown

Pension Fund

	US Public	Non US Equity	Emerging Mkt	Fixed Income	Real Return	Private Equity	Real Estate	Absolute Return	Cash	Total
Fee for Long Balance	--	1,557	--	--	8	174	--	--	--	1,739
Lending Fee Rebate	229,271	(823,364)	--	295,634	399,601	--	--	--	--	101,142
Investment Advisory Fees	2,791,275	6,725,327	278,525	5,915,318	5,296,758	9,876,980	5,230,172	6,670,492	--	42,784,847
Performance/ Incentive Fees	--	--	--	1,807,435	1,065,339	27,585,542	3,393,482	349,675	--	34,201,473
TMPG Charges	--	(2,697)	--	(5,158)	--	--	--	--	--	(7,855)
TMPG Fails Charge	--	--	--	932	--	--	--	--	--	932
Stock Loan Fees	278,850	166,946	-	127,155	107,107	-	-	-	-	680,059
Miscellaneous	-	--	--	186	--	--	4,980	--	--	5,166
Taxes & Insurance	--	--	--	5,599	--	(11,233)	--	--	--	(5,634)
Interest Expense	--	--	--	--	--	--	--	--	--	--
Other	934	16,450	-	1,123	1,059,306	5,224,880	2,210,149	215,373	200,225	8,928,440
Commission on Future Contracts	1,443	-	-	1,384	665	-	-	-	-	3,492
Commission on Swaps Contracts	--	--	--	750	--	--	--	--	--	750
Miscellaneous Tax	--	--	--	--	--	--	--	--	--	--
Consultant Fees	--	--	--	--	--	--	--	--	1,140,465	\$1,140,465
Custodial Fees	--	--	--	--	--	--	--	--	944,521	\$944,521
	\$3,301,774	\$6,084,219	\$278,525	\$8,150,358	\$7,928,784	\$42,676,343	\$10,838,786	\$7,235,541	\$2,285,211	\$88,779,536
									Financial Statement Reported Expenses	\$88,779,536
									Difference	-



External Investment Expense - Asset Class/Type Breakdown

Insurance Fund

	U.S. Public	Non U.S. Equity	Emerging Market	Fixed Income	Real Return	Private Equity	Real estate	Absolute Return	Cash	Total
Fee for Long Balance	--	579	--	--	--	80	--	--	--	659
Lending Fee Rebate	135,680	(336,376)	--	101,060	175,138	--	--	--	--	75,502
Investment Advisory Fees	1,055,403	2,521,226	112,223	2,165,064	2,094,960	4,085,089	2,144,622	2,463,000	--	16,641,587
Performance/ Incentive Fees	--	--	--	892,535	445,265	10,700,407	1,382,092	132,195	--	13,552,494
TMPG Charges	--	--	--	--	--	--	--	--	--	--
TMPG Failes Charge	--	--	--	--	--	--	--	--	--	--
Stock Loan Fees	86,348	65,889	--	34,279	35,574	--	--	--	--	222,090
Miscellaneous	--	--	--	210	--	--	--	--	--	210
Taxes & Insurance	--	--	--	1,936	--	(2,319)	--	--	--	(383)
Interest Expense	--	--	--	--	--	--	--	--	--	--
Other	381	7,154	--	317	464,810	1,683,944	548,909	84,328	74,863	2,864,706
Commission on Future Contracts	649	--	--	480	277	--	--	--	--	1,406
Commission on Swaps Contracts	--	--	--	2,822	--	--	--	--	--	2,822
Consultant Fees	--	--	--	--	--	--	--	--	427,986	427,986
Custodial Fees	--	--	--	--	--	--	--	--	600,326	600,326
	1,278,462	2,258,472	112,223	3,195,878	3,216,023	16,467,203	4,075,623	2,679,523	1,103,176	34,386,583
										Financial Statement Reported Expenses \$34,386,583
										Difference -

The Governmental Accounting Standards Board recognizes that it may not be possible or cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses of the plan. KRS has displayed all investment related fees and expenses identifiable and captured by our custodial bank, BNY Mellon and KRS staff.



FAIR VALUES BY PLAN

Pension

Category	KERS Nonhazardous		KERS Hazardous	
	Fair Value	%	Fair Value	%
Public Equity	\$735,221,184	38.3%	275,313,755	52.4%
US Equity	347,910,679	18.1%	138,819,049	26.4%
Non-US Equity	387,310,505	20.2%	136,494,706	26.0%
Fixed Income	408,326,735	21.3%	62,111,844	11.8%
Global	190,254,683	9.9%	31,665,453	6.0%
Credit	218,072,052	11.4%	30,446,391	5.8%
Real Return	161,920,144	8.4%	44,211,281	8.4%
Private Equity	276,870,464	14.4%	53,860,591	10.2%
Real Estate	73,589,209	3.8%	26,903,744	5.1%
Absolute Return	199,524,353	10.4%	52,174,217	9.9%
Cash	64,235,984	3.3%	9,682,175	1.8%
Miscellaneous	1,832,188	0.1%	1,527,920	0.3%
TOTAL PORTFOLIO	\$1,921,520,261		\$525,785,527	

Insurance

Public Equity	\$384,488,060	58.6%	\$241,096,836	55.4%
US Equity	214,175,982	32.7%	128,245,136	29.5%
Non-US Equity	170,312,078	26.0%	112,851,700	25.9%
Fixed Income	79,833,258	12.2%	52,940,242	12.2%
Global	41,044,496	6.3%	27,431,574	6.3%
Credit	38,788,763	5.9%	25,508,668	5.9%
Real Return	54,616,310	8.3%	36,146,986	8.3%
Private Equity	26,791,442	4.1%	30,966,991	7.1%
Real Estate	29,424,374	4.5%	22,176,146	5.1%
Absolute Return	64,506,056	9.8%	42,806,276	9.8%
Cash	16,328,499	2.5%	9,698,195	2.2%
Miscellaneous	(25,842)	0.0%	(17,170)	0.0%
TOTAL PORTFOLIO	\$655,962,157		\$435,814,503	



FAIR VALUES BY PLAN

Pension

Category	CERS Nonhazardous		CERS Hazardous	
	Fair Value	%	Fair Value	%
Public Equity	\$3,300,615,847	54.1%	\$1,073,220,675	53.8%
US Equity	1,706,502,583	28.0%	551,552,310	27.6%
Non-US Equity	1,594,113,264	26.1%	521,668,365	26.1%
Fixed Income	724,228,958	11.9%	237,345,221	11.9%
Global	368,780,491	6.0%	121,014,491	6.1%
Credit	355,448,467	5.8%	116,330,730	5.9%
Real Return	515,961,497	8.5%	168,442,914	8.4%
Private Equity	554,908,918	9.1%	189,743,049	9.5%
Real Estate	302,088,274	5.0%	95,314,882	4.8%
Absolute Return	621,862,634	10.2%	197,056,235	9.9%
Cash	78,184,606	1.3%	33,766,025	1.7%
Miscellaneous	1,533,945	0.0%	1,783,175	0.1%
TOTAL PORTFOLIO	\$6,099,384,678		\$1,996,672,176	

Insurance

Public Equity	\$1,028,135,363	54.2%	\$488,667,596	53.8%
US Equity	534,769,607	28.2%	291,535,805	27.8%
Non-US Equity	493,365,756	26.0%	273,229,931	26.0%
Fixed Income	230,800,934	12.2%	19,340,372	12.1%
Global	119,318,484	6.3%	9,918,825	6.2%
Credit	111,482,450	5.9%	9,421,547	5.9%
Real Return	158,268,667	8.3%	13,212,329	8.3%
Private Equity	172,400,958	9.1%	96,598,459	9.2%
Real Estate	96,158,160	5.1%	52,708,229	5.0%
Absolute Return	183,089,376	9.7%	102,551,266	9.8%
Cash	28,877,022	1.5%	18,698,615	1.8%
Miscellaneous	(74,823)	0.0%	(41,401)	0.0%
TOTAL PORTFOLIO	\$1,897,655,657		\$867,833,604	



FAIR VALUES BY PLAN

Pension

Category	SPRS	
	Fair Value	%
Public Equity	\$ 96,459,764	46.4%
US Equity	49,257,415	23.7%
Non-US Equity	47,202,349	22.7%
Fixed Income	36,545,185	17.6%
Global	18,619,785	9.0%
Credit	17,925,400	8.6%
Real Return	17,715,758	8.5%
Private Equity	20,961,331	10.1%
Real Estate	11,071,486	5.3%
Absolute Return	21,017,156	10.1%
Cash	3,573,370	1.7%
Miscellaneous	360,088	0.2%
TOTAL PORTFOLIO	\$207,704,138	

Insurance

Public Equity	\$85,353,190	53.3%
US Equity	43,821,923	27.4%
Non-US Equity	41,531,267	25.9%
Fixed Income	19,340,372	12.1%
Global	9,918,825	6.2%
Credit	9,421,547	5.9%
Real Return	13,212,329	8.3%
Private Equity	14,897,656	9.3%
Real Estate	8,438,549	5.3%
Absolute Return	16,050,308	10.0%
Cash	2,815,999	1.8%
Miscellaneous	(6,334)	0.0%
TOTAL PORTFOLIO	\$160,102,070	



FAIR VALUES - Total KRS

Pension

Category	Fair Value	%
Public Equity	\$5,480,831,225	51.0%
US Equity	2,794,042,036	26.0%
Non-US Equity	2,686,789,189	25.0%
Fixed Income	1,468,557,943	13.7%
Global	730,334,903	6.8%
Credit	738,223,040	6.9%
Real Return	908,251,594	8.4%
Private Equity	1,096,344,353	10.2%
Real Estate	508,967,595	4.7%
Absolute Return	1,091,634,595	10.2%
Cash	189,442,160	1.8%
Miscellaneous	7,037,316	0.1%
TOTAL PORTFOLIO	\$10,751,066,780	

Insurance

Public Equity	\$2,227,741,045	55.5%
US Equity	1,212,548,453	30.2%
Non-US Equity	1,091,290,732	27.2%
Fixed Income	402,255,178	10.0%
Global	207,632,203	5.2%
Credit	194,622,975	4.8%
Real Return	275,456,620	6.9%
Private Equity	341,655,507	8.5%
Real Estate	208,905,457	5.2%
Absolute Return	409,003,282	10.2%
Cash	76,418,331	1.9%
Miscellaneous	(165,570)	0.0%
TOTAL PORTFOLIO	\$4,017,367,991	

Letters from Investment Consultants



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Dear KRS Board,

Economic Review

Leading into the fiscal year, risk assets experienced volatile trading days as global markets reacted to currency movements and default risk in Greece. The unrest continued beyond July 1 (the start of FY 2015-2016). In August of 2015, the People's Bank of China (PBOC) stunned investors by devaluing the Yuan against the U.S. dollar. Global equity markets responded with a greater than 8% decline within the eight days following the surprise move. Fixed income markets provided a modest buffer for investors, as a flight to quality pushed interest rates lower in developed markets.

While most global nations struggled to spark economic growth, the U.S. economy proved resilient enough for the Federal Reserve Open Market Committee (FOMC) to raise the Federal Funds rate by 0.25% in December of 2015. This marked the first major Central Bank to diverge from the far more common monetary easing policies employed by most developed countries. After raising the key rate, FOMC communicated a more dovish policy stance throughout 2016 that kept the rate unchanged. In general, FOMC factored in weakening non-U.S. financial conditions in its expectations for domestic growth and inflation to a greater degree than it had previously.

Contrary to the U.S., the European Central Bank (ECB) expanded monetary stimulus measures, extending the quantitative easing program by six months and lowering the deposit rate to -0.3%. A negative interest rate meant the ECB would charge banks when they deposited money at the central bank as part of their regular banking operations. The "fee" is akin to a penalty for banks and is designed to encourage them to lend to businesses and consumers in order to increase capital flow and fuel economic activity. The same held true for the Bank of Japan (BoJ), which also announced additional monetary stimulus and enacted a negative interest rate policy on marginal new reserves. Despite these actions, results of these efforts were disappointing with the Yen and Euro strengthening relative to the U.S. Dollar. Data showed 36% of outstanding global developed market government debt yielded less than 0% at June 30, 2016. Toward the end of June, uncertainty around the Brexit vote dominated the news flow and catalyzed a flight to safety across risk assets following the surprising outcome that U.K. citizens voted to exit the European Union.

Measures of market-based inflation expectations in the U.S. remained below the Fed's target 2.0% during the fiscal year. The 10-year break-even inflation rate fell from a July 1, 2015 level of 1.9% to 1.4% by fiscal year-end. The Purchasing Managers Index rose above the 50.0 mark, indicating expansion in the U.S., and the ISM Purchasing Managers Index (PMI), which measures the health of the manufacturing sector, sank to a reading of 48.2, a post-recession low, before rising to growth-oriented 53.2 by fiscal year-end. The unemployment rate fell just below 5.0% to 4.9% by June 30 even as more workers entered the labor force.

Capital markets experienced a mix of headwinds and tailwinds that prevented scores of public and private institutional investors from achieving high target returns for the year ending June 30, 2016. Headwinds included substantial U.S. dollar strengthening, diverging central bank monetary policies, commodity market dislocations, and emerging market asset volatility. World equity, bond, and commodity markets each ended calendar year 2015 in negative territory, with commodities and emerging market equities suffering the largest declines. The S&P 500 barely bucked the trend, finishing the calendar year with marginal gains.

The second half of the fiscal year began with sharp declines in equity and commodity markets that subsequently reversed due to renewed optimism and a weaker U.S. Dollar. Global fixed income appreciated as concern over disinflationary pressure and weak global growth led several developed market central banks to intensify accommodative monetary policies and lower interest rates to negative territory. In the U.S., investors reacted

positively to the Fed's initial shift toward a less aggressive monetary policy. The U.S. Dollar reacted accordingly, reversing a prolonged strengthening trend. The weakening Dollar provided price support to dollar-based commodities and served as a tailwind for emerging market equity and debt assets. Despite the U.S. Dollar tailwind for emerging markets, the surprise Brexit vote led to sharp initial declines in developed market equities, though markets quickly recovered in July 2016 following a series of dovish statements from central banks.

The table below displays key domestic economic indicators as of June 30, 2016.

**Domestic Economic Indicators
As of June 30, 2016**

	June 2016	June 2015	Yr/ Yr	10 Year	20 Year
Capacity Utilization	75.37%	77.82%	▼	76.32%	78.02%
Unemployment Rate	4.90%	5.30%	▼	7.00%	6.00%
PMI - Manufacturing	53.20%	53.50%	▼	51.90%	52.20%
Baltic Dry Index - Shipping	660	800	▼	2,654	2,308
Real GDP YoY	1.20%	2.30%	▼	1.40%	2.40%
Consumer Confidence (Conf. Bd.)	97.40	99.76	▼	74.73	93.21
Breakeven Inflation - 10 Year*	1.44%	1.89%	▼	2.05%	N/A
CPI YoY (Headline)**	1.00%	0.10%	▲	1.80%	2.20%
CPI YoY (Core)**	2.30%	1.80%	▲	1.90%	2.00%
PPI YoY	-2.00%	-2.60%	▲	2.00%	2.00%
M2 YoY	7.00%	5.80%	▲	6.40%	6.30%
Federal Funds Rate (%)	0.30%	0.08%	▲	1.07%	2.47%
US Dollar Total Weighted Index	90.64	89.94	▲	78.17	86.76
WTI Crude Oil per Barrel	\$48	\$59	▼	\$80	\$55
Gold Spot per Oz***	\$1,322	\$1,172	▲	\$1,176	\$762

*Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as N/A.

CPI figures are cyclically adjusted. *10- and 20-year average Gold spot prices are adjusted for inflation.

Capital Markets Review

Global Equity

U.S. equity markets outperformed international markets for the fiscal year, as evidenced by the Russell 3000 Index returning 2.1%, compared to -10.2% for the MSCI EAFE and -12.1% for the MSCI Emerging Market indices (in U.S. dollar terms).

U.S. equity markets ended the first fiscal quarter (CY3Q15) in negative territory in response to the global sell-off in August and September. However, the increased volatility benefited active management over passive management during the quarter. The Russell 2000 and Microcap indices suffered the largest losses, finishing the quarter at -11.9% and -13.8%, respectively, due in large part to losses in biotechnology stocks. Large-cap stocks fared the best, but still ended the quarter in negative territory with the Russell 1000 Index returning -6.8%.

The U.S. equity market recovered during the second fiscal quarter (CY4Q15), erasing losses incurred during the global sell-off in August. Despite poor performance mid-quarter, the Russell 3000 Index finished the quarter up 6.3%. Growth leadership persisted across the market cap spectrum and large-cap stocks continued to outpace small-cap stocks.

Despite a sharp uptick in volatility, the U.S. equity market began 2016 in positive territory, as strong March gains erased heavy losses incurred during a January market sell-off. The Russell 3000 Index returned 1.0%, and was led

by defensive sectors, which benefitted from expectations of a continued low interest rate environment and general economic uncertainty. These market conditions proved difficult to navigate for active management, especially for managers who favored exposure to cyclical and growth-oriented sectors.

U.S. equity markets finished the fourth fiscal quarter (CY2Q16) in positive territory across all market capitalization ranges and styles, with the Russell 3000 Index rising 2.6%. Historically stable sectors such as utilities, consumer staples, and telecom continued to post strong gains as market volatility persisted and notably rallied in the final week of the quarter amidst the uncertainty created by the UK's European Union (EU) referendum.

In contrast to domestic equity markets, developed international markets finished the fiscal year with only one quarter of positive returns (CY4Q15). While the dispersion between international growth and value reversed temporarily in the second fiscal quarter, the MSCI EAFE Growth finished the first half of the fiscal year with a return of -4.8% versus -15.4% for the MSCI EAFE Value. Developed international small cap stocks finished the first half nearly flat, but the start of 2016 proved more difficult and culminated with the UK's EU referendum. The vote caused a sharp increase in market volatility, particularly in developed Europe. Over the fiscal year, MSCI EAFE Small Cap Index returned -3.7% and the MSCI EAFE Index declined 10.2%.

Global Fixed Income

Fixed income markets, both domestic and international performed well over the fiscal year. The Barclays U.S. Aggregate Index returned 6.0% while the Barclays Global Aggregate Index rose 8.9%.

U.S. fixed income fell during the second fiscal quarter (CY4Q15), posting a -0.6% return, but rebounded sharply during the final two quarters of the fiscal year as the Barclays U.S. Aggregate Index returned 3.0% and 2.2%, respectively. Strong performance in early 2016 can be attributed to the Fed's shift toward a more accommodative monetary policy, a rebound in energy prices, and a stabilization of volatility in the markets. U.S. high yield suffered losses in the first half of the fiscal year (CY2H15) due to depressed oil and commodity prices but reversed course in 2016 with the Barclays U.S. Corp High Yield Index gaining 9.1% over the final two quarters and finishing the fiscal year with a return of 1.6%.

Emerging market debt (EMD) faced strong headwinds in the second half of 2015 as a strengthening U.S. Dollar hurt local currency bonds. However, both local and hard currency emerging market bonds posted strong returns during the first two quarters of 2016.

Real Return

Real return strategies had mixed results over the fiscal year. REITs performed well in every quarter while U.S. TIPS struggled in the first half of the fiscal year before rebounding in the second half. Commodities finished the fiscal year with a strong quarter but had large losses overall due to a continued reduction of inflation expectations caused by a strengthening U.S. Dollar and sharp declines in commodity prices. A large drop in crude oil prices was perhaps the most obvious source of deflationary pressure in the fourth quarter of 2015.

Although the market's expectation for future inflation did not increase over the first quarter of 2016, inflation-sensitive asset classes benefited from a rising CPI. Most real return strategies provided strong performance during the final quarter of the fiscal year with relatively narrow divergence, although commodities exposure and energy allocations performed the strongest. In a quarter of robust performance among most inflation-sensitive assets, managers with larger TIPS allocations tended to lag the group despite still outperforming several major equity market indices.

Real Estate

Core U.S. Real Estate performed consistently well during the fiscal year, which concluded with the NCREIF-ODCE Index recording its 25th consecutive positive quarterly return. Capital continued to flow into U.S. real estate as investors sought shelter from global uncertainty. Even as valuations surpass pre-crisis peaks in certain sectors, the U.S. real estate market fundamentals remained strong with low vacancy rates and consistent rent growth.

Absolute Return

Hedge funds posted mixed results on a quarterly basis, but were negative overall with the HFRI Fund of Fund Diversified Index posting a -4.9% for the fiscal year. August and September were particularly difficult as the market sell-off negatively affected most fundamental strategies. Distressed strategies faced headwinds in the first half of the fiscal year as credit spreads widened. Macro strategies, which performed relatively well in the first fiscal quarter, had a difficult second quarter due to unexpected trends in European currency and bond markets following a weaker than expected easing announcement from the ECB in December.

The hedge fund industry continued to perform poorly during the first quarter of 2016. Long/Short Equity managers with over-weights to heavily trafficked sectors like healthcare, technology, and financials had a difficult quarter to start the year. However, merger-arbitrage strategies advanced based on wide deal spreads and continued robust M&A activity. Hedge funds performed better in the final quarter of the fiscal year, especially those with diversified strategies and higher exposures to merger arbitrage.

The following table summarizes the returns earned by the major markets for the trailing one-year period ending June 30, 2016.

**One-Year Trailing Asset Class Performance
As of June 30, 2016**

Index	Description	Return
S&P 500	Large Cap U.S. Equity	3.99
R Mid Cap	Mid Cap U.S. Equity	0.56
R 2000	Small Cap U.S. Equity	-6.73
MSCI EAFE (Gross)	Large Cap Intl Equity	-9.72
MSCI EAFE SC (Gross)	Small Cap Intl Equity	-3.32
MSCI Emg Mkts (Gross)	Emerging Mkts Equity	-11.71
Barclays US Agg Bond	U.S. Invmt Grade Bonds	6.00
Barclays US Trsy	U.S. Treasury Bonds	6.22
Barclays US Trsy: US TIPS	U.S. TIPS	4.35
Barclays US Corp: Hi Yld	U.S. High Yield Bonds	1.62
Wilshire US REIT	U.S. Real Estate Inv Trusts	22.82
NCREIF ODCE (Gross)	U.S. Open End Core Real Estate	11.82
HFRI FOF Diversified	Absolute Return	-4.86
BofA ML 3 Mo US T-Bill	U.S. Cash Equivalent	0.19

Asset Allocation Review

The Board formally reviewed the asset allocation for each of the pension and insurance plans during the fiscal year. This year's review took into account the 2015 asset liability study RVK presented to the Board during the end of the prior fiscal year. The study is a valuable tool that informs the Board on how to structure the investments of each plan based on projected liabilities and forecasted net cash flows using certain actuarial assumptions.

Results of the asset liability study indicated that some of the pension plans (CERS Non Hazardous, CERS Hazardous, and KERS Hazardous) and all of the insurance plans allow for a growth-oriented portfolio invested in a diverse mix of liquid and alternative investments that target a 7.5% actuarial return. These plans exhibited a healthy and improving set of market funded ratios and payout ratios over the next 20 years. Given these results and the steady decrease in capital market assumptions over the past several years, the Board approved new asset allocation targets for the CERS Non Hazardous, CERS Hazardous, and KERS Hazardous pension plans and all five of the insurance plans. The new targets increased the allocation to global equity and decreased the allocation to fixed income in order to improve the probability of achieving a 7.5% long-term return goal. While this may increase the risk of the plans, they are projected to be healthy enough to withstand the potential volatility as tested through stress test analyses.

Regarding the KERS Non Hazardous and State Police pension plans, results of the asset liability study indicated that these plans are severely underfunded (having funded ratios of less than 40%) and they should maintain higher levels of liquidity and change allocations to mitigate downside volatility. To achieve these goals, primarily mitigating downside capital losses, the plans need to target a return below the 7.5% actuarial return targeted for the healthier plans. The Investment Committee and the Board discussed winding down the private equity allocation (i.e., no new investments) in order to increase liquidity levels of the distressed pension plans, but deferred making a decision until there is clarity on the Legislature's commitment to making the actuarially required contribution payment to the KRS plans. The target allocations for the KERS Non Hazardous plan was modestly changed, with a decrease in real return and cash, and an increase in fixed income and real estate. The State Police Pension plan modestly decreased its real return target allocation in favor of an increase to its U.S. equity target allocation.

Pension Plan Review

The combined market value of the Kentucky Retirement System (System) Pension Plan assets (collectively called hereafter, "the Pension Fund") decreased from \$11.5 billion on June 30, 2015 to \$10.7 billion on June 30, 2016. The Pension Fund's investments collectively declined 0.5%, net of fees, for the fiscal year. Compared to the 0.3% return earned by its target allocation benchmark, the Pension Fund underperformed by approximately 80 basis points. The Pension Fund's three- and five-year annualized net returns of 5.5% and 5.4%, respectively, underperformed the target allocation benchmark returns by approximately 90 basis points and 120 basis points, respectively. During the prior fiscal year (2014-2015), the Board approved a downward revision of the actuarial assumed rate of return, from 7.75% to 7.5% for some of the pension plans (CERS Non Hazardous, CERS Hazardous, and KERS Hazardous) and all of the insurance plans. During the 2015-2016 fiscal year, the Board approved the actuarial rate for the poorly funded pension plans (KERS Non Hazardous and State Police Pension) to be revised to 6.75%. Since the Pension Fund's inception (April-1984), it has generated an annual return of 9.0%, exceeding the Fund's actuarial assumed rate of return.

The System's current Pension Fund investments are diversified across all segments of the U.S. and international equity markets (both developed and emerging markets). The fixed income portfolio is a diversified mix of U.S. investment grade, high yield, global fixed income, and emerging market debt securities. The System also invests in

All plan returns are net of fees as provided by the custodian bank, BNYMellon.



real return strategies, real estate, absolute return strategies, and private equity. The Board aggressively negotiates fees on all investments.

The table below shows the aggregate pension plan asset allocation as of June 30, 2016, relative to the individual target allocations.

**Kentucky Retirement Systems
Pension Plan
Asset Allocation vs. Target Allocation**

	Market Value (\$)	Allocation (%)	KERS Target (%)	KERS - H Target (%)	CERS Target (%)	CERS - H Target (%)	SPRS Target (%)
U.S. Equity	2,794,042,039	26.0	22.0	26.5	26.5	26.5	23.0
Non-U.S. Equity	2,686,789,184	25.0	20.0	26.5	26.5	26.5	23.0
Fixed Income	1,468,557,940	13.7	22.0	12.0	12.0	12.0	18.0
Real Return	908,251,593	8.4	8.0	8.0	8.0	8.0	8.0
Real Estate	508,967,596	4.7	5.0	5.0	5.0	5.0	5.0
Absolute Return	1,091,634,599	10.2	10.0	10.0	10.0	10.0	10.0
Private Equity	1,096,344,352	10.2	10.0	10.0	10.0	10.0	10.0
Cash Equivalent	189,442,160	1.8	3.0	2.0	2.0	2.0	3.0
Other	7,037,315	0.1	-	-	-	-	-
Total	10,751,066,778	100.0	100.0	100.0	100.0	100.0	100.0

2016, relative to the individual target allocations.

The current deviations of each plan are within an allowable and acceptable range. The allocations across plans differ based on plan-specific liquidity requirements.

Insurance Plan Review

The combined market value of the Kentucky Retirement System Insurance Plan assets (collectively called hereafter, “the Insurance Fund”) stayed mostly unchanged at \$4.2 billion as of June 30, 2016, from the prior fiscal year end. The Insurance Fund’s investments returned -0.1% (net of fees) for the fiscal year, trailing the target allocation benchmark of 0.7% by approximately 80 basis points. The Insurance Fund’s three-year annualized return of 5.4% underperformed the target allocation benchmark of 6.3%, and the five-year annualized return of 4.8% fell short of its benchmark’s return of 6.0% by approximately 120 basis points. The Insurance Fund also currently targets an actuarial assumed rate of return of 7.5%. Since its inception of April-1987, the Insurance Fund has modestly underperformed its funding target by 30 basis points on an annual basis.

The Insurance Fund investments are diversified across all segments of the U.S. and international equity markets (both developed and emerging markets). The fixed income portfolio is a diversified mix of U.S. investment grade, high yield, global fixed income, and emerging market debt securities. The System also invests in real return strategies, real estate, absolute return strategies, and private equity. The Board aggressively negotiates fees on all investments.

¹All plan returns are net of fees as provided by the custodian bank, BNYMellon

**Kentucky Retirement Systems
Insurance Plan
Asset Allocation vs. Target Allocation**

	Market Value (\$)	Allocation (%)	Insurance Target (%)
U.S. Equity	1,212,548,453	28.9	26.5
Non-U.S. Equity	1,091,290,733	26.0	26.5
Fixed Income	510,574,141	12.2	12.0
Real Return	349,720,954	8.3	8.0
Real Estate	208,905,457	5.0	5.0
Absolute Return	409,003,284	9.7	10.0
Private Equity	341,655,508	8.1	10.0
Cash Equivalent	76,418,331	1.8	2.0
Total	4,199,951,291	100.0	100.0

The table below shows aggregate actual and target allocations as of June 30, 2016.

The current deviations of the actual allocation from the target allocation are within an allowable and acceptable range. For less liquid asset classes (private equity), it may take years before the current allocation is in line with the target allocation.

Investment Portfolio Review – Pension Plan

Global Equities

The U.S. equity composite returned 1.4% for the year. Active management among all cap mandates were most challenged, while manager selection in small cap equity added value. In concert with the increased allocation to global equities, the U.S. equity portfolio was restructured to include an internally managed alternative index mandate based on the Scientific Beta U.S. Multi-Beta Diversified Multi-Strategy Index. This mandate will eventually replace the internally managed S&P 500 Index as the core holdings for the KRS Pension and Insurance U.S. equity portfolios, serving as a cost effective, additional source of alpha with a reduced level of risk compared to the traditional cap-weighted index.

During the next fiscal year, additional analysis and restructuring will be conducted within the U.S. equity portfolio to reset the core/satellite structure. The focus will be on reallocating assets between the passive index portfolio and the high conviction, concentrated “satellite” investments, reducing the number of active managers in the composite, and controlling total fees.

The non-U.S. equity composite returned -8.5% for the fiscal year. While currency issues, political unrest, and the Brexit vote challenged international equity markets throughout the fiscal year, the majority of the active managers in the composite generated alpha relative to their individual benchmark. The completion and implementation of an optimization study on the international composite has yielded positive results and mitigated downside losses during a difficult year. The study led to increasing allocations to high conviction managers while carefully balancing

the expected higher alpha against the portfolio's total cost and tracking error. In particular, the dedicated emerging market equity mandates merged into larger, broader global-ex U.S. mandates to allow skilled investment managers to determine the dynamic allocations between developed and developing markets. The consolidation also served to lower fees.

Global Fixed Income

The fixed income composite returned 4.8%, supported by the majority of the fixed income mandates outperforming their respective benchmarks. At the start of the second half of the fiscal year, the benchmark for the composite changed to 50% Barclays U.S. Universal Bond Index (a global fixed income benchmark) + 50% U.S. High Yield Index. The portfolio continues to transition toward better matching the new blended benchmark into the next fiscal year. However, it is expected that meaningful performance discrepancies may continue between the actual portfolio and the benchmark within periods one year or less. Part of that longer-term view results from the addition of a multi-sector/opportunistic fixed income mandate intended to provide greater investment flexibility in an anticipated challenging environment for global fixed income. The strategy has a 2-3 year investment horizon. In addition, the composite's allocation to dedicated high yield mandates was reduced and the dedicated emerging market debt mandate was eliminated. The negative outlook for the emerging market debt sector led to the decision to invest in that segment on an opportunistic basis rather than maintain a strategic target allocation.

The cash and equivalents held in the portfolio are not expected to add significant value to the portfolio. Instead, the goal is to hold cash close to the target allocation to meet outflow obligation while earning a return in line with 3-month Treasury Bills. For the fiscal year, the cash equivalents portfolio earned 0.5%.

Alternatives

The real return composite continuously invests and harvests investments according to a long-term pacing model. The composite continued to reallocate investments from the Treasury Inflation Protected Securities (TIPS) portfolio into diversified, inflation-sensitive strategies, like agricultural, timberland, and energy-related investments. With the guidance of a dedicated consultant, there is a plan to continue building a multi-strategy portfolio that collectively offers inflation protection with capital appreciation. Some of the new, less-liquid investments will take time to mature before benefiting the total plan. For the fiscal year, the real return composite generated a 1.1% return. The real estate composite continually evolves as new deals are sourced, funded, and harvested in a prudent manner. Like many of the real asset investments, the private real estate funds are more appropriately measured over longer periods as they mature. Over the fiscal year, the real estate portfolio posted a 9.2% return. One area of focus during the fiscal year was on real estate related investments with higher income generating potential and shorter lock up periods.

The absolute return portfolio was originally developed with fund-of-hedge funds to gain immediate exposure to the space. During the fiscal year and into the next, the fund-of-hedge funds will continue to wind down and serve as sources of capital to fund other direct, less expensive strategies that will mitigate market risk but produce positive returns over time. During the fiscal year, the absolute return portfolio declined 6.3% return amid macroeconomic events that have adversely affected several hedging strategies.

The private equity portfolio continually evolves as new deals are sourced and funded in a prudent manner. Because the private equity funds are closed-end funds with the ability to exit after ten plus years, it is more appropriate to measure the returns over periods much longer than a 12-month period. The private equity portfolio generated a fiscal year rate of return of 5.5%.

Investment Portfolio Review – Insurance Plan

The Insurance Plan invests in a similar manner as the Pension Plan, with the exception of a few certain investments across the portfolio. Although the insurance plan returns slightly differ from the returns earned in the pension plan due to investment restrictions, the relative under/outperformance of the asset class composites were similar for the fiscal year.

Board Initiatives

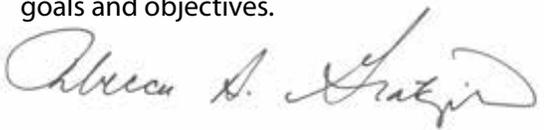
As previously mentioned, the Board approved changes to the Plans' target asset allocation based on results from the recent asset liability study that better align the liabilities and net cash flows of the pension and insurance plans with the investment asset allocation. The Board will continue to monitor target allocations and will consider making additional asset allocation changes if significant changes to the Plans occur, including the Legislature's future commitment to making contributions to the Plans. Within each asset class, the Board continues to review opportunities to maximize risk-adjusted returns that positively contribute to the long-term returns of the Plans as well as manage the costs borne by the Plans.

Oversight

The KRS Board, Investment Committee, and staff regularly monitor the System's investment policies, goals, objectives, and performance of its assets with the assistance of RVK and their specialist consultants. These evaluations include reviews of the investment management firms and the custodial bank that serve the System. Market values and investment performance returns referenced above are based upon financial statements prepared by Bank of New York Mellon (previously prepared by Northern Trust) in their capacity as the custodian bank. We rely on their data and have not independently audited those statements. However, their financial statements are, to the best of our knowledge, believed to be reliable.

Summary

The years following the great financial crisis in 2008 have been quite volatile across all markets with winners and losers switching places year after year. The unpredictability of market forces affecting investment strategies in different ways over the years has required investor patience and heightened stewardship by the Board as it executes its duty of care over the obligations owed to the System's employees and retirees. We expect the Board's continued high standard of care for these assets and commitment to diversification to allow the System to meet its long-term goals and objectives.



Rebecca Gratsinger
Chief Executive Officer, Principal
RVK, Inc.

655 Montgomery Street, Suite 1910 San Francisco, CA 94111 • Tel +1 415 489 7200
105 Rowayton Avenue Norwalk, CT 06853 • Tel +1 203 299 4400 • www.albourne.com

Real Return - Fiscal Year Market Commentary

Global economic conditions remained timid for the last fiscal year with modest improvements in the US economy offset by continued weakness in Europe and elsewhere. Real asset highlights included a continued softening of the US agriculture land values, compression of returns in infrastructure, and stabilization of oil prices in the mid-\$40USD range. The lack of meaningful growth outside of the US has failed to stabilize commodity markets and continues to weigh heavily on a majority of indices; particularly the metals and energy subsectors. Metals and energy are dependent on global growth as opposed to the regional influences that impact timber, agriculture, and infrastructure. Gold rose modestly from the \$1100 range to \$1300 - \$1400, an indication of modest concern for inflation by traders. The US Federal Reserve remained on hold, but concern about inflation was enough to posture for a rate increase as labor conditions in the US continued to tighten. Most indicators project a prolonged low interest rate environment with moderate upward pressure on both asset and monetary inflation over the medium-term. The net impact for Real Asset sub strategies was mixed. Core infrastructure return profiles continued to compress as capital flowed into the space and competition for transactions increased with institutional investors showing no sign of slowing in the current low rate environment. Value-added and mid-market infrastructure continued to perform well as operational managers and sector specific strategies fared well.

Agricultural assets continue to show signs of moderate valuation adjustments in regions such as the US Midwest and other locations that had previously witnessed strong valuation increases. Timber assets have experienced performance profiles in line with a combination of biological and local inflationary influences. Energy prices may have found bottom in January but volatility continued as oil traded from \$27.50 - \$50.20 throughout the year but most recently in the mid \$40s. This has provided a level of stability for liquid managers such as MLPs and opens up opportunities for private markets in distress as a number of funds have been forced into recapitalization. This has had a positive impact on the portfolio which has been conservatively positioned.

Real Return - Discussion

The KRS Real Return portfolio has historically focused on more conservative, income-oriented strategies balanced with opportunistic funds designed to take advantage of inflation participation during periods of economic growth. This has resulted in a low volatility portfolio that has not witnessed the drawdowns associated with broader generic indices. The process of portfolio construction has involved in-depth analysis by staff, in conjunction with Albourne, and extensive due diligence including onsite visits with a wide array of managers. By focusing on income generating strategies, the portfolio continues to rely heavily on the cash flow characteristics of the underlying strategies. The past year has been relatively quiet with respect to allocations and capital return is beginning to accelerate. International investments have been slow to draw down due to continued instability in emerging markets as managers chose to hold back and continue to be selective in allocations to new projects. Liquidity considerations will continue to be emphasized over the short term and we will continue to source opportunities that focus on inflation linked income characteristics and inflation protection through participation. Reallocation strategies will be considered based on their relative attractiveness to other opportunities and liquidity will be closely monitored.

Absolute Return – Fiscal Year Market Commentary

The fiscal year started off on a mixed note in July 2015, with markets rebounding after concerns over the future of Greece in the EU. There was also significant volatility in Chinese markets as regulators looked to stem capital outflows. Sovereign credit spreads tightened during the month, particularly for peripheral European issuers, and the US dollar strengthened as FOMC statements kept a 2015 rate rise on the table. July was mixed in the hedge fund space with flat performance overall. Momentum helped certain strategies, including global macro and CTAs, but most other strategies were slightly down for the month.

August saw a pickup in volatility as concerns around China drove a large and broad sell-off in risk assets. Equity markets bore the brunt of the selling with most major markets down over 10% at some point during the month. Credit and commodities also suffered. Hedge funds struggled in August with higher beta equity and event driven strategies suffering the most. Relative value strategies were broadly flat and CTAs lost significant ground as markets bounced towards the end of the month, reversing the previous trend.

Investors remained concerned about the slowdown in China and lack of clarity regarding future central bank policy, causing the risk off environment to continue through September. Against this backdrop, higher beta hedge fund strategies continued to suffer while macro and relative value strategies generally performed well.

Equity, credit and commodity markets bounced back in October. There was substantial dispersion within the hedge fund space during the month, creating the widest spread in performance between the four super strategies since mid-2012. Equity long/short and event driven strategies performed well while relative value and macro strategies were down modestly.

November was a quieter month, although there was continued sector and regional dispersion. Investors in developed markets were buoyed by central bank expectations but global equities finished in negative territory. The US dollar strengthened during the month and the broad based commodity sell-off resumed after a strong October. It was a mixed month for hedge funds, though on average we saw positive performance. CTAs were up the most, benefitting from commodity weakness. Most other strategies were flat to slightly down for the month.

December proved to be another interesting month for markets, ending a challenging 2015. Almost all equity markets were down on the month and there was disruption in the high yield credit space as well, with reports of select funds suffering severe redemption pressure. Given this substantial market turmoil, most hedge fund strategies ended December in negative territory.

In January, concerns over global growth stemming from China continued to cause unease as the markets opened for 2016. Oil price declines extended the trend from 2015. In the US, there was talk from the Fed of a potential slowing of future rate rises while in Japan, interest rates were cut to negative at month end. Much of the month's volatility was captured in equity markets with all major markets down. Higher beta hedge fund strategies struggled in January while more defensive strategies helped to provide diversification.

The concerns that hurt markets through January continued into the first weeks of February. More specifically, talks of a global slowdown moved towards talks of a recession as potential systemic concerns came to the fore. Most major equity markets were down slightly at month end, but these numbers mask the full volatility experienced during the month. At their trough, US equities were down mid-single digits and European equities were down double digits mid-January. Hedge funds were down modestly for the month while CTAs and macro managers provided a diversification benefit.

The reversal in markets and shift to a risk-on stance that started in mid-February continued through March. Markets that had been out of favor earlier in the year, including value, rebounded significantly during the month. All major equity markets were up significantly. Many hedge fund strategies which suffered year to date rebounded while CTAs and macro managers tended to give back profits due to the reversal.

In April, risk assets broadly moved higher supported by a recovery in commodities. However, the Bank of Japan decision to leave interest rates unchanged and continued caution from the Fed over future US rate rises still grabbed headlines. The month was slightly better for hedge fund managers with most strategies positive. Event driven managers benefited from the rally in credit though macro lagged other strategies modestly.

US economic data was strong in May and inflation was at its highest level in three years, supporting a decline in volatility and an increase in risk assets. Developed equity markets were positive on the month while the strength of the US dollar hurt emerging markets, driving them down significantly. Brazil was particularly hard hit as corruption re-entered the headlines. Hedge funds were broadly positive for the month, led by distressed credit and equity long/short managers.

Coming into June, markets traded on the back of opinion polls regarding the UK referendum vote, with negative performance occurring first as the 'Leave' outcome moved ahead and then positive performance just ahead of the vote as the 'Remain' camp looked more likely to win. In the end, the UK voted to leave the EU, which precipitated significant market volatility. US equities were roughly flat while European equities were down substantially. Credit indices were less impacted and distressed credit continued to be positive. Most hedge funds sidestepped Brexit exposure due to the level of uncertainty surrounding the polling. CTAs profited through the month while most other strategies were flat.

Absolute Return - Discussion

During the fiscal year, KRS investment staff have presented several managers for the Investment Committee's consideration and approval for implementation in the Absolute Return Portfolio. This process involved in-depth analysis by staff, research and analysis by Albourne, site visits, triangulating the research with the portfolio's existing fund-of-funds managers, general consultants, and other professional resources. A broad and diverse field of fund candidates was evaluated before narrowing the group to the final presentations. We will continue to steadily grow the portfolio's number of direct manager strategies and, consequently, its diversification and return potential.

As the portfolio's manager mix nears completion, we have begun to re-size its constituents as the fund- of-funds allocation declines. As always, we look to maximize the portfolio's diversification and return potential.



G. Stephen Kennedy
Portfolio Analyst
Albourne



Andrew McCulloch
Portfolio Analyst
Albourne

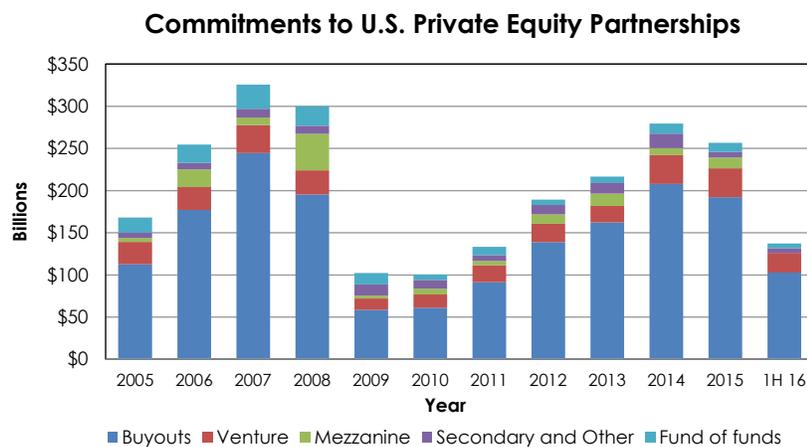
411 NW Park Avenue, Suite 401, Portland, OR 97209 • Tel: 503.226.1050 Fax: 503.226.7702 • www.pensionconsulting.com

September 15, 2016

Pension Consulting Alliance, LLC (PCA) was hired in April 2014 to advise the KRS Board and Staff on its private equity investment activities. This is PCA's third annual review of the KRS private equity investment Program.

Private Equity Industry Trends:

• Fundraising activities are on pace to exhibit a slight increase from last year's level, in-line with 2014 levels. Approximately \$140 billion of commitments were raised domestically in the first half of 2016, with buyouts continuing to represent the largest proportion of capital raised, while secondaries and fund of funds have waned over the past two years.



Source: Private Equity Analyst through June 2016

• Announced U.S. buyout deal volume in the first half of 2016 is on pace to match 2015 levels. Total announced U.S. buyout deal volume was \$156.2 billion in 1H 2016, down from \$160.0 billion in 1H 2015, which exhibited volatility, but in-line to match the full calendar year activity of \$312.0 billion (the highest annual level over the past eight years).

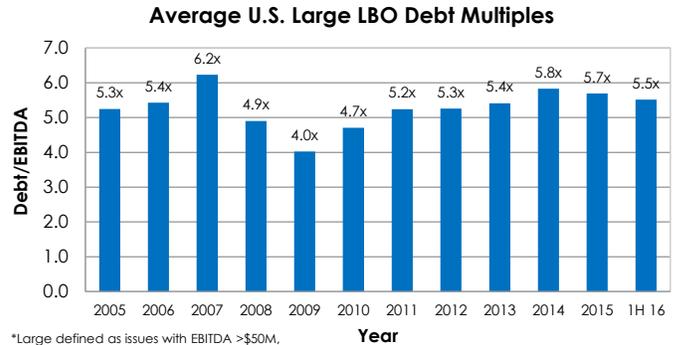


* Total deal size (both equity and debt). Source: Thomson Reuters Buyouts

- Risk metrics in the leveraged buyout market were down slightly during the first half of 2016 as purchase price multiples and debt multiples decreased. The average purchase price multiple in the first half of 2016, at 10.1x, decreased from 10.3x in 2015 but was still well above the ten-year average of 9.0x. Debt multiples for the first half of 2016 were at 5.5x, below the 5.7x level for the 2015 calendar year but still above the ten-year average of 5.3x.

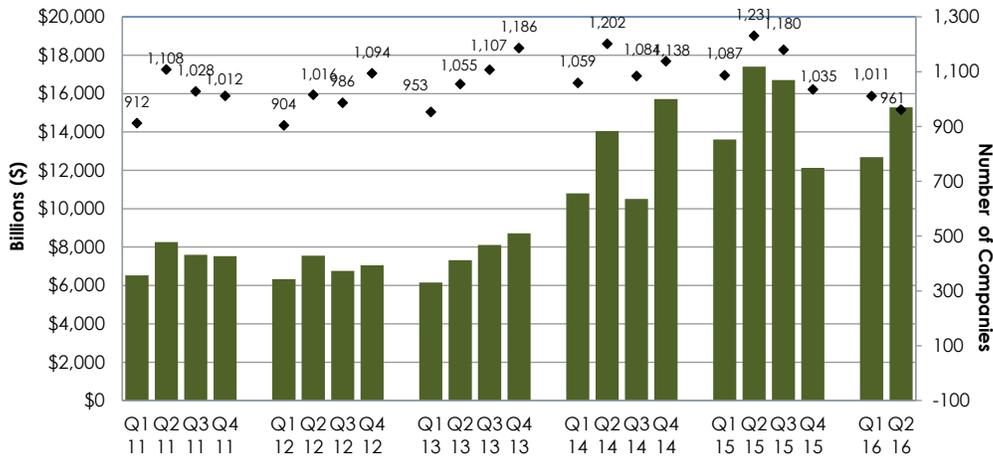


Source: S&P Capital IQ



*Large defined as issues with EBITDA >\$50M.
Source: S&P Capital IQ

- Venture capital investment activity moderated slightly in the first half of 2016. Approximately \$28.0 billion was invested across 1,972 companies during the first half of 2016 which trailed the \$31.0 billion invested across 2,318 companies in the first half of 2015. In the 2015 calendar year, \$59.9 billion was invested across approximately 4,533 companies.



* Only includes equity portion of deal value.
Source: Thomson Reuters

- Exit activity for venture capital investments was mixed in the first half of 2016. The number of merger and acquisition (M&A) transactions increased in the first half of 2016 from one-year prior, and annualized, is on pace to exceed 2015 levels. However, the initial public offering (IPO) market exhibited decreases in the first half of 2016 and is on pace to be well below 2015 levels.

Performance:

Over longer time-periods (i.e. ten-years or greater), the private equity markets have outperformed the public equity markets. Performance of the broader private equity market underperformed domestic public equity over the latest five-year period, as domestic public equity markets posted strong absolute results coming out of the financial crisis that were above long-term expectations. Over the latest one-year and three-year periods, private equity has outperformed public equity.

Public Market Performance Comparison, as of March 31, 2016*

Index	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr
All Private Equity*	6.4%	11.7%	10.5%	9.3%	12.0%
Russell 3000	-0.3%	11.2%	11.0%	6.9%	8.0%
MSCI EAFE	-7.9%	2.7%	2.8%	2.3%	4.5%

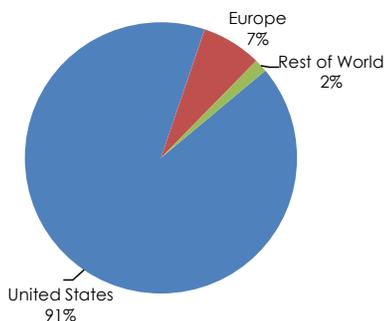
*Thomson ONE, Cambridge Associates all Asset Class/Strategies

KRS Private Equity Portfolio:

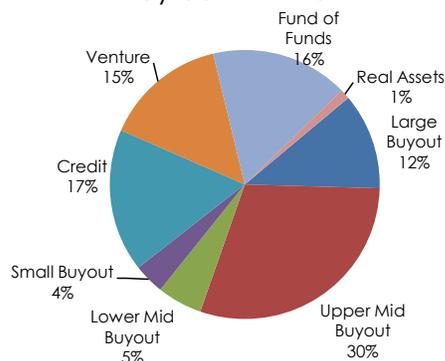
As of June 30, 2016, KRS had \$3.0 billion of commitments across 42 managers (66 partnerships) gaining exposure across the spectrum of private equity strategies including: buyout, venture/growth, and credit-oriented strategies. Since inception, approximately \$3.0 billion has been drawn down while \$2.8 billion of capital has been returned. During the first six months of 2016, \$99.0 million has been drawn down to fund investments and \$129.9 million of distributions have been returned.

The Pension Plan had \$2.3 billion of active commitments and the Insurance Plan had \$703 million of active commitments as of mid-year 2016. The portfolio, with a domestic orientation, is well diversified across target investment strategies.

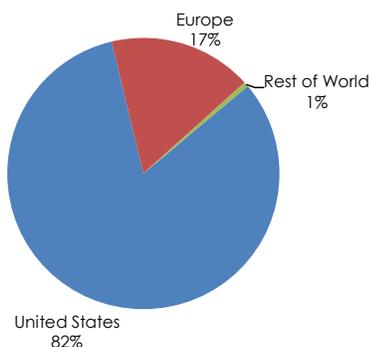
Pension Geographic Exposure:
by commitment



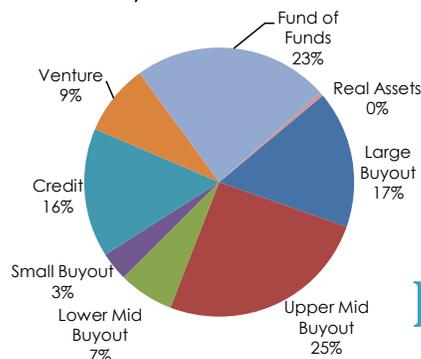
Pension Sector Exposure:
by commitment



Insurance Geographic Exposure:
by commitment



Insurance Sector Exposure:
by commitment



KRS Commitments:

Over the past twelve months ending June 30, 2016, KRS has committed approximately \$150.0 million across three new partnerships.

KRS New Commitment Activity, last twelve months

Fund Investment	Approval Date	Commitment Amount (M)
Harvest Partners VII	Nov-2015	\$50.0
Green Equity Investors VII	Feb-2016	\$50.0
Vista Equity Partners VI	Feb-2016	\$50.0

As of 6/30/2016

Program Development:

In dialogue with KRS Staff, PCA has identified the following areas of focus for further development of the portfolio:

- » Continue a disciplined approach to annual commitment pacing and partnership commitment sizing, making larger commitments to fewer managers in order to maintain a manageable number of relationships while progressing towards target allocations.
- » Consider opportunistic commitments to take advantage of transactions arising out of market dislocations and/or undercapitalized segments of the market.
- » Explore cost-effective approaches to deploying capital, such as co-investing, to maximize returns while minimizing expenses.

Please feel free to contact me regarding any of the information above.

Sincerely,



Tad Fergusson, CFA
 Managing Director
 Pension Consulting Alliance, Inc.

3733 Park East Drive • Cleveland, OH 44122-4334 • tel: 216.468.0055 • fax: 216.468.0054

September 30, 2016

ORG Portfolio Management LLC (“ORG”) serves as the Real Estate Investment Consultant for Kentucky Retirement Systems (“KRS”). It is ORG’s responsibility to present potential investment opportunities to the Investment Staff and Board and to make recommendations related to KRS’ real estate portfolio. It is ORG’s commitment to assist KRS in building a successful long term real estate investment portfolio for the KRS pension fund members.

U.S. Market Overview

According to Green Street, year over year real estate fair value has continued to stretch further relative to other assets; 5% higher than Investment Grade Bonds, 10% higher than High-Yield Bonds and 6% higher than REITs. However, this performance has slowed on an absolute basis. The NCREIF NPI capital appreciation for the one year period ending Q2 2016 was 5.6% as compared to 6.7% for the one year period ending Q1 2016. Going forward there is optimism, but one has to find it somewhere between the near-consensus sentiment that we are later in the cycle, softening fundamentals in New York City, San Francisco and Miami, and shrinking contribution queues in most core open ended funds.

The supply story so far this year is really a tale of two (types of) cities. Although overall completions as a percentage of existing stock in 2016 is expected to be below the 1990 average of 1.3% annually, some markets are seeing some supply concerns in certain property types. Office supply is high in markets such as the San Francisco Bay Area and New York City. Lodging supply in Manhattan is very concentrated and hotel fundamentals continue to decelerate. Pipelines are growing in industrial however, we’ve seen the market absorb industrial very quickly and lift up rents.

Capital markets remain cooperative, although risk retention where loan originators have to retain portion of loan pools is right around the corner and there is roughly \$200 billion of CMBS maturing in 2016 and 2017. As of June 2016, Citibank shows that secondary trading volume for Private-Label CMBS has decreased to below \$650 billion compared to over \$1 billion from one year ago

The U.S. economy has continued to increase at a persistent pace. The growth estimate for the second quarter 2016 was 1.4% compared to 0.8% for the first quarter 2016. The stronger dollar has led to an increase in domestic consumption and a possible increase in interest rates in the near future. According to the Bureau of Labor Statistics, the current unemployment rate is 4.9% which is down from 5.1% in the second quarter 2015. The improved job growth started a cycle of wage growth, allowed increased spending, leading to rising business revenues and additional job opportunities.

The U.S. commercial real estate market continued to see improvement in 2016. The capitalization rates as of June 30, 2016 for all sectors have declined from the prior year ending June 30, 2015.

Capitalization Rates	2nd Qtr. 2016	2nd Qtr. 2015	Basis Point Change
Total	4.60%	4.81%	-0.21
Apartments	4.53%	4.66%	-0.13
Retail	4.61%	4.97%	-0.36
Office	4.48%	4.69%	-0.21
Industrial/Warehouse	5.03%	5.20%	-0.17

Source: NCREIF – Current Value Weighted Capitalization Rates as of 6/30/2016.



Industrial Sector: Industrial as a sector has been an outperformer with all fundamentals trending positively. In 2015 the market achieved net absorption of 250 million sf with only 155 million of new supply delivered. Rents have increased approximately 5% since 2Q 2015 and national rents are 23% above 2007 peak levels for new warehouses according to CBRE. Rents have increased so quickly that, according to Prologis, in-place rents are about 15% lower than market rents. Recently in Q3, there were two industrial deals that transacted at a sub 4% cap rate, as pricing continues to increase. Supply is still reasonable as replacement costs have risen drastically, with shell costs up 7-10% over the past year and land costs up 10-15% in the last year.

Apartment Sector: Apartment supply is certainly a cause for concern. The 2016-2018 projection for new deliveries according to Deutsch Asset Management is 234,000 units per year. This is well above (75%) the long term average of 137,000 units according to NCREIF. The supply is also concentrating in CBDs, especially the higher-end product. Many coastal markets have started to show decelerating rent growth. Vacancy ticked up to 4.4% from 4.3% a year earlier. With vacancy increasing, rent growth slowing and the historically high amounts of new supply, the Multifamily story seems to present limited upside from here.

Office Sector: Office markets continue to show modest improvement due to healthy job gains by office using sectors. As of July 2016, according to CBRE effective, rents increased 3.8% which represents a slightly smaller increase than in 2014. Over the next two to three years it is expected that nearly 180 million sf will be delivered which represents less than 1% of the existing stock compared to the 15 year average of 1.6% of new office stock. CBD markets continue to outperform suburban markets, however CBD absorption of 1.3% of stock in 2015 was down from 1.7% in 2014. The Bay Area was once again a strong performer. Oakland recorded the highest rent growth at 14.7% and San Jose achieved the highest total return at 16.7% (Source: CBRE, as of July 2016).

Retail Sector: Retail supply remains muted. Since 2009 annual supply increase has averaged 0.5% compared to the 2.0% average annual increase in the 15 years preceding 2009. Rents grew 1.6% in the past year in what amounts to a modest recovery. However, there have been various retailers, such as Sports Authority, who have filed for bankruptcy recently. Other traditional brick and mortar retail shops are looking to close stores (Macy's has stated they will close approximately 100 stores). The clothing store Aeropostale, that targets 14 to 17 year olds, also walked the edge of bankruptcy until Simon Properties, GGP and others stepped in to purchase the company. Power Centers and B-malls, both which sell goods readily available online are currently out of favor, contrasted with more insulated retail such as grocery-anchored centers or higher end retailers.

ORG's View

Real estate markets in the U.S. have largely recovered from the 2008 financial crisis and the investment returns continue to increase. The real estate returns decreased over the 2015 levels based upon the National Council of Real Estate Investment Fiduciaries ("NCREIF") Property Index ("NPI") which had a 10.6% return for the period ending June 30, 2016 vs. the 13.0% return for the one year period ending June 30, 2015.

ORG has noted that the one-year income return as of June 30, 2016 for core open end funds gross of fees as reported by the NCREIF Open-End Diversified Core Equity ("ODCE") Index is 4.6% vs. 4.9% for the one year period ending June 30, 2015. This low income return will require substantial rental rate growth or appreciation growth in order for the funds to generate the projected 8-9% rate of return expected for core. The long-term Since Inception appreciation return for the ODCE is 1.3%. ORG is concerned that the strategies targeting gateway core markets will underperform expectations for core real estate. These core gateway markets (San Francisco, New York) are 'priced to perfection' with the income returns at an all-time low.

In Europe, outside a few gateway cities (London and Paris), the real estate fundamentals and capital markets have not recovered as fast as in the U.S.

As an alternative, ORG continues to recommend that investors focus on investment strategies where going in income returns are higher in certain overlooked strategies. The supply/demand fundamentals are favorable for the office market, although there are a few markets with cause for concern (Houston, Austin, Seattle). Millennials (27% of the U.S. population) preference to living in apartments and working in creative office space will continue to drive demand in these sectors.

ORG recommends that a focus should be on sustainable and defensive cash flows by making investments with managers that target investments with existing cash flows or the creation of cash flows through value added investments. In addition, opportunities in real estate can be found in Western Europe, especially the United Kingdom in non-prime assets.

ORG also recommends strategies in opportunistic funds where investors can capitalize on the continual de-leveraging of real estate that continues as debt originated during 2005-2007 continues to mature over the next several years. These opportunities to recapitalize high quality properties that have often been neglected could generate attractive risk adjusted returns over the next several years.

Kentucky Retirement Systems Real Estate Investments

All data below reflects activity through June 30, 2016.

2008-2010 Investment Activity: In December 2008, Kentucky Retirement Systems made \$40 million commitments each to the following funds:

- 1) Mesa West Real Estate Income Fund II, L.P.
- 2) PRIMA Mortgage Investment Trust.
- 3) Walton Street Real Estate Fund VI, L.P.

In July 2013, an additional \$48.0 million was committed to PRIMA Mortgage Investment Trust increasing the total KRS commitment to \$82.0 million. In April 2015, \$15.5 million was withdrawn from PRIMA bring the total commitment down to \$66.5 million and in January 2016, the entire remaining position was liquidated and the funds returned to KRS.

- » Mesa West Real Estate Income Fund II – In December 2015, Mesa West completed the fund's liquidation. Since inception, \$33.4 million was funded and Mesa West returned \$46.5 million for an overall net IRR of 13.0% with a 1.4x equity multiple.
- » PRIMA Mortgage Investment Trust – For the fiscal year ending June 30, 2016, KRS withdrew its entire remaining investment in PRIMA of \$76.1 million. Since inception, \$82 million was funded and PRIMA returned \$112.3 million for an overall net IRR of 8.6% with a 1.4x equity multiple.
- » Walton Street Real Estate Fund VI – For the fiscal year ending June 30, 2016, Walton Street VI made no capital calls and returned \$8.8 million in capital and gain distributions. Since inception, \$33.2 million has been funded with \$6.8 million remaining capital to be called.
- »

2011 Investment Activity: Kentucky Retirement Systems made the following commitments:

- 1) \$100 million to H/2 Credit Partners, L.P. in April with an additional \$3 million commitment in October 2012. In 2013, \$3.3 million was withdrawn from the fund for a total commitment of \$99.7 million. In the 1st quarter 2016, KRS withdrew \$28.5 million, which reduced the commitment to \$71.2 million.
 - 2) \$101.9 million to Harrison Street Core Property Fund, L.P. in December with an additional \$3.8 million commitment in October 2012 and \$17.9 million commitment in June 2013 for a total commitment of \$123.6 million. In the 1st quarter, KRS withdrew \$46.7 million which reduced the commitment to \$76.8 million.
- » H/2 Credit Partners – For the fiscal year ending June 30, 2016, H/2 Credit Partners made no distributions. This investment is fully funded. In the 1st quarter 2016, KRS withdrew \$28.5 million.
 - » Harrison Street Core Property Fund – For the fiscal year ending June 30, 2016, Harrison Street returned \$7.0 million of income distributions and of that \$2.7 million was reinvested for the Insurance Fund. This investment is fully funded. In the 1st quarter 2016, KRS withdrew \$46.7 million.

2012 Investment Activity: Kentucky Retirement Systems made the following commitments:

- 1) \$52.5 million to Walton Street Real Estate Fund VII, L.P. in August with an additional \$2.4 million commitment in October for a total commitment of \$54.9 million.
 - 2) \$54.9 million to Greenfield Acquisition Partners VI, L.P. in December.
 - 3) \$83 million to Mesa West Core Lending Fund, L.P. in December 2012.
- » Walton Street Real Estate Fund VII – For the fiscal year ending June 30, 2016, Walton VII made five capital calls totaling \$5.4 million and returned \$11.2 million of capital, income and gain distributions. Since inception, \$35.2 million has been funded with \$19.7 million remaining capital to be called.
 - » Greenfield Acquisition Partners VI – For the fiscal year ending June 30, 2016, Greenfield VI made no capital calls and returned \$28.1 million of capital, income and gain distributions. Since inception, \$52.7 million has been funded with \$2.2 million remaining capital to be called.
 - » Mesa West Core Lending Fund – For the fiscal year ending June 30, 2016, Mesa West Core returned \$5.6 million of income distributions of which \$2.5 million was reinvested into the Insurance Fund. This investment is fully funded.

2013 Investment Activity: Kentucky Retirement Systems made the following commitments:

- 1) \$30 million to Rubenstein Properties II, L.P. in July.
 - 2) \$30 million to H/2 Core Debt Fund, L.P. in August.
 - 3) \$70 million to Prologis Targeted U.S. Logistics Holdings, L.P. in October.
 - 4) \$95 million to Stockbridge Smart Markets, L.P. in December.
- » Rubenstein Properties II – For the fiscal year ending June 30, 2016, Rubenstein II made three capital calls totaling \$17.3 million. Since inception, \$25.2 million has been funded with \$4.8 million remaining capital to be called.
 - » H/2 Core Debt Fund – For the fiscal year ending June 30, 2016, H/2 Core returned \$6.6 million of income distributions. This investment is fully funded.
 - » Prologis Targeted U.S. Logistics Holdings – For the fiscal year ending June 30, 2016, Prologis distributed \$3.1 million of which \$0.8 was reinvested into the Insurance Fund. This investment is fully funded.
 - » Stockbridge Smart Markets – For the fiscal year ending June 30, 2016, Stockbridge Smart Markets distributed \$4.1 million of which \$1.2 million was reinvested into the Insurance Fund. This investment is fully funded.



2014 Investment Activity: Kentucky Retirement Systems made the following commitments:

- 1) \$40 million to Lubert-Adler Real Estate Fund VII, L.P. in March with an additional commitment of \$10 million in November.
 - 2) \$30 million to Divco West IV, L.P. in April.
 - 3) \$40 million to Greenfield Acquisition Partners VII, L.P. in July.
- » Lubert-Adler Real Estate Fund VII – For the fiscal year ending June 30, 2016, Lubert- Adler VII made four capital calls totaling \$17.5 million and returned \$0.1 million of fee rebate distributions. Since inception, \$30.0 million has been funded with \$20.0 million remaining to be called.
 - » Divco West IV – For the fiscal year ending June 30, 2016, Divco West IV made three capital calls totaling \$4.6 million and returned \$6.0 million in capital, income and gain distributions. Since inception, \$26.7 million has been funded with \$3.3 million remaining to be called.
 - » Greenfield Acquisition Partners VII – For the fiscal year ending June 30, 2016, Greenfield VII made two capital calls totaling \$1.8 million and had no distributions. Since inception, \$22.9 million has been funded with \$17.1 million remaining capital to be called.

2015 Investment Activity: Kentucky Retirement Systems made no additional commitments to the Real Estate Portfolio in 2015. Withdrawal requests were sent to managers for the following investments: PRIMA – complete withdrawal of \$76.1 million; Harrison Street Core Property Fund – withdrawal of \$47.6 million; and H/2 Credit Partners - \$28.5 million. These withdrawal requests were paid during the fourth quarter 2015 and continued into 2016 as noted above with each fund.

2016 Investment Activity: Through June 30, 2016, Kentucky Retirement Systems made the following commitment:

- 1) €50 million (approximately \$55.7 million) to Patron Capital, LP V in June.
- » Patron Capital V – For the fiscal year ending June 30, 2016, Patron V made no capital calls.

Please feel free to contact me regarding any of the information above.
Very truly yours,



Jonathan Berns
Principal



Edward Schwartz
Principal

ACTUARIAL



ACTUARIAL TABLE OF CONTENTS

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Certification of Actuarial Results

The 60th annual actuarial valuation of the Kentucky Employees Retirement System (KERS), the fifty-seventh annual actuarial valuation of the County Employees Retirement System (CERS), and the fifty-eighth annual actuarial valuation of the State Police Retirement System (SPRS) have been completed and the reports prepared. These reports describe the current actuarial condition of the Kentucky Retirement Systems (KRS), determine the calculated employer contribution rates, and analyze fluctuations in these contribution rates.

Under state statute, the Board of Directors must approve the employer contribution rates. These rates are determined actuarially based upon current membership data, plan provisions, and the assumptions and funding policies adopted by the KRS Board. The June 30, 2016, actuarial valuation will be used by the Board of Directors to certify the CERS employer contribution rates for the fiscal year beginning July 1, 2017, and ending June 30, 2018. The June 30, 2016, actuarial valuations for the KERS and SPRS will be used by the Board of Directors for informational purposes only. The KERS and SPRS employer contribution rates for the fiscal years beginning July 1, 2016, and ending June 30, 2018, were certified in the June 30, 2015, actuarial valuations.

Funding Objectives & Policies

For each retirement system, KRS administers both a pension and insurance fund to provide for monthly retirement allowances and retiree insurance benefits respectively. The total employer contribution rate is comprised of a contribution to each respective fund.

Relative to the pension fund, a contribution rate has been established which consists of the normal cost and an amortization payment on the unfunded accrued liability (UAL). The amortization of any UAL is made over 30 years from the establishment of the amortization base using a level percent of payroll amortization method. In accordance with the changes to statute made by Senate Bill 2, the amortization period was reestablished as a closed 30-year period beginning with the June 30, 2013, actuarial valuation. The amortization period will decrease by one each year in the future.

Overall, the total contribution for the pension fund is expected to remain stable as a percentage of payroll over future years in the absence of benefit improvements and material experience gains or losses.

Relative to the insurance fund, the Board’s funding objective is to establish a contribution rate which consists of the normal cost and an amortization payment on the UAL As with the pension fund, going forward, the UAL will be amortized over a 30-year period beginning June 30, 2013. The amortization period will decrease by one each year going forward.

Administrative expenses of the plans are also included as part of the total pension fund contribution. This portion of the funding is expected to remain relatively stable as a percentage of payroll over future years.

KERS, CERS and SPRS have three benefit tiers. Members hired prior to, or on, August 31, 2008, are in Tier 1. House Bill 1 passed into law in 2008 which introduced Tier 2 for members hired after August 31, 2008, and prior to January 1, 2014. Tier 2 reduced the contribution rates in relationship to Tier 1. Senate Bill 2 was passed into law in 2013 which introduced Tier 3 for those hired on, or after, January 1, 2014. Tier 3 is a Cash Balance Plan for pension benefits. The cash balance plan limits the employers’ exposure to increased contribution rates due to less than anticipated investment experience.

Progress towards Realization of Funding Objectives

The progress towards achieving the intended funding objectives, relative to both the pension and insurance funds, can be measured by the relationship of actuarial assets of each fund to the actuarial accrued liabilities. This relationship is known as the funding level and in the absence of benefit improvements, should increase over time until it reaches 100%.

In recent years, funding levels for the pension funds have fallen dramatically in response to investment returns less than the actuarially assumed rate, higher than anticipated retirement rates, assumption changes and increasing expenditures for retiree Cost of Living Adjustments (COLA). Within the KERS and SPRS plans, prior employer contribution rate reductions enacted by the State Legislature severely limited the plans ability to correct the declining funding levels. Senate Bill 2 requires the state to contribute the full actuarially determined employer contribution rates compared to the House Bill 1 phase-in rates which would not have required the full actuarially determined employer contribution rate for many years. As of June 30, 2016 and 2015, the funding levels for the pension and insurance funds are as follows:

Funding Level				
	2016		2015	
System	Pension Fund	Insurance Fund	Pension Fund	Insurance Fund
KERS Non-Hazardous	16.0%	30.3%	19.0%	28.8%
KERS Hazardous	59.7%	125.3%	62.2%	120.4%
CERS Non-Hazardous	59.0%	69.6%	60.3%	68.7%
CERS Hazardous	57.7%	72.9%	58.0%	72.3%
SPRS	30.3%	67.2%	33.8%	65.8%

Data

In completing the valuation of these systems, we have relied on data and financial information provided by the Kentucky Retirement Systems. We have reviewed this data for reasonableness, and made some general edit checks to impute certain information that may not have been provided with the original employee data. However, we have not audited this data. Any schedules of trend data over the past ten years or less contained in the Actuarial Section, as well as the Schedule of Funding Progress and Schedule of Employer Contributions in the Financial Section, have been based on valuation reports fully prepared by the actuary for the plan at the time of each valuation.

The following schedules, included in this section, were prepared by us:

Summary of Actuarial Assumptions

Summary of Actuarial Valuation Results

Recommended Employer Contribution Rates

Summary of Actuarially Unfunded Liabilities

Analysis of Financial Experience

Solvency Test

Active Member Valuation

Retired Member Valuation

Summary of Benefit Provisions

Assumptions & Methods

The Board of Directors, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. At least once every five years the actuary conducts a thorough review of plan experience for the preceding five years, and then makes recommendations to the Board. The actuarial assumptions and methods used for the funding calculations of the valuation were adopted by the Board on December 4, 2014, and based on the experience investigation report dated April 30, 2014. Since the previous valuation, the assumed rate of return for the KERS Non-Hazardous Retirement System and the State Police Retirement System has been reduced from 7.50% to 6.75%. These assumptions have been adopted by the Board of Directors of the Kentucky Retirement Systems in accordance with the recommendation of the actuary. The next experience study is scheduled to be completed in early 2019 and any adjustments are expected to be reflected in the June 30, 2019, actuarial valuation.

Closing

The long-term financial health of the three retirement Systems, like all retirement systems, is heavily dependent on two key items: (1) future investment returns and (2) contributions to the System. The System has recently been strengthened due to two reasons. They are: recent legislative action that provides 100% funding of the actuarially determined contribution and the elimination of unfunded ad hoc cost-of-living adjustments for retirees. The cost for providing cost-of-living adjustments for retirees must be prefunded in advance.

The information presented in this letter describes the pertinent issues relative to the valuation. There are no other specific issues that need to be raised beyond these items in order to fairly assess the funded position of the plan as presented in the current valuation.

The funding of the Kentucky Employees Retirement System, the County Employees Retirement System, and the State Police Retirement System has been determined based on the requirements of the Kentucky Revised Statutes and the current funding policies of the Board on the basis that all the actuarial assumptions are met. The funding rates established by the Board are appropriate for this purpose. However, it is up to the state legislature to follow through with the required funding. As noted above, Senate Bill 2 calls for KERS and SPRS contributions at the actuarially determined rates beginning with fiscal year 2015. It should also be noted that the Retirement Fund of the KERS Non-Hazardous Retirement System and the SPRS Pension Fund are both in critical condition.



Todd B. Green ASA, FCA, MAAA
Principal and Consulting Actuary



Alisa Bennett, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144
Phone (678) 388-1700 • Fax (678) 388-1730
www.CavMacConsulting.com
Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE

The results of the actuarial valuation are based upon the assumptions and funding policies adopted by the Board and statutory funding requirements. Assumptions and funding policies are reviewed against actual plan experience at least once every five years through the completion of the Actuarial Experience Study.

Summary of Actuarial Assumptions

The results of the actuarial valuation are based upon the assumptions and funding policies adopted by the Board and statutory funding requirements. Assumptions and funding policies are reviewed against actual plan experience at least once every five years through the completion of the Actuarial Experience Study. The most recent study was completed in April 2014 and reviewed plan experience for the period from July 1, 2008 through June 30, 2013. All assumptions, with the exception of health care trend rates, used in the June 30, 2016 actuarial valuation were based on the most recent experience study performed in 2014 and in accordance with the actuary's recommendations. The most recent experience study was adopted by the Board on December 4, 2014.

1. Actuarial Cost Method: The actuarial valuation was prepared using the entry age normal cost (EANC) method as required by state statute. Under this method, the present value of future benefits is determined for each member and allocated equitably as a level percentage of payroll from the member's entry age into the plan to the assumed age of exit from the plan. The portion of the present value of future benefits allocated to the current valuation year is called the normal cost. The portion of the present value of future benefits allocated to prior years of service that has accrued to date is called the actuarial liability. The unfunded actuarial liability (UAL) represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. Relative to the pension fund and the insurance fund, an employer contribution rate has been established to be equal to the sum of the normal cost and the amount needed to amortize the unfunded actuarial liability (UAL).

2. UAL Amortization Method: The amortization of any UAL is made over 30 years from the establishment of the amortization base using a level percent of payroll amortization method. In accordance with the changes to statute made by SB2, the amortization period was reestablished as a closed 30 year period beginning with the June 30, 2013 actuarial valuation. The amortization period will decrease by one each year in the future.

3. Asset Valuation Method: The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the investment return assumption. The amount recognized each year is 20% of the difference between market value and expected market value.

4. Retiree Insurance Funding Policy: The assumptions, methods, and funding requirements used in the valuation are to meet the requirements of GASB Statement No. 43. As with the pension Fund, the amortization period was reestablished as a closed 30-year period beginning with the June 30, 2013 actuarial valuation.

5. Investment Return Assumption: The future investment earnings of plan assets are assumed to accumulate at a rate of 7.5% per annum for the CERS Non-Hazardous Retirement System, the CERS Hazardous Retirement System, the KERS Hazardous Retirement System, and all Insurance Systems. This rate consists of a 3.25% inflationary component and a 4.25% real rate of return component. The assumed rate of return for the KERS Non-Hazardous Retirement System and the State Police Retirement System has been reduced from 7.5% to 6.75%. This rate consists of a 3.25% inflationary component and a 3.5% real rate of return component.

6. Salary Increase Assumptions: Active member salaries are assumed to increase at the rates provided in Table 1 on the following page. The rates include a 4% percent inflationary component and an additional increase due to promotion based upon plan experience. These assumptions were adopted in 2014.

Table 1. Salary Increase Assumptions

Service	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
0-1	16.50%	20.50%	12.50%	19.50%	16.50%
1-2	8.50%	8.50%	9.00%	10.00%	11.50%
2-3	6.00%	6.50%	5.50%	6.00%	9.50%
3-4	5.50%	6.00%	5.50%	5.25%	8.50%
4-5	5.50%	5.50%	5.00%	5.00%	7.50%
5-6	5.50%	5.00%	5.00%	4.50%	6.50%
6-7	5.00%	4.50%	4.75%	4.00%	6.00%
7-8	5.00%	4.50%	4.75%	4.00%	6.00%
8-9	5.00%	4.50%	4.50%	4.00%	5.00%
9-10	4.50%	4.50%	4.50%	4.00%	4.50%
10+	4.50%	4.50%	4.25%	4.00%	4.00%

7. Payroll Growth Assumption: Active member payroll is assumed to increase at a rate of 4.0% per annum. This assumption was adopted in 2014.

8. Retiree Cost of Living Adjustments (COLA): SB2 (Senate Bill 2) only allows the Cost of Living Adjustments (COLAs) to be awarded on a biennial basis if the State Legislature so authorizes and either (i) the system is over 100% funded or (ii) the Legislature appropriates sufficient funds to pay the increased liability for the COLA.

9. Medical Inflation Rate Assumption: The costs for retiree medical premiums are assumed to increase each according to the assumptions provided in Table 2 below:

Table 2. Cost of Retiree Medical Premiums

Fiscal Year Ended	Trend		Dollar Contribution
	Under Age 65	Age 65 and Over	
2017	7.50%	5.50%	1.50%
2018	6.75%	5.25%	1.50%
2019	6.25%	5.00%	1.50%
2020	5.75%	5.00%	1.50%
2021	5.25%	5.00%	1.50%
2022 and beyond	5.00%	5.00%	1.50%

* Applies to members participating on or after July 1, 2003

10. Retirement Rate Assumptions: The probability, or the likelihood, that a member will retire at a specified age or level of service is provided in Table 3. These assumptions were adopted in 2014.

Table 3. Retirement Rate Assumptions

Age	Non-Hazardous			Service	Hazardous					
	KERS ¹	KERS ²	CERS ³		KERS ⁴	KERS ⁵	CERS ⁶	CERS ⁷	SPRS ⁸	SPRS ⁹
55	8.0%		5.0%	20	40.0%		22.5%		22.0%	
56	8.0%		6.0%	21	40.0%		22.5%		22.0%	
57	8.0%		7.0%	22	40.0%		22.5%		22.0%	
58	8.0%		7.0%	23	40.0%		22.5%		28.0%	
59	8.0%		8.0%	24	40.0%		30.0%		28.0%	
60	10.0%	10.0%	9.0%	25	47.0%	40.0%	33.0%	22.5%	28.0%	22.0%
61	20.0%	20.0%	15.0%	26	47.0%	40.0%	33.0%	22.5%	28.0%	22.0%
62	20.0%	20.0%	18.0%	27	47.0%	40.0%	36.0%	22.5%	28.0%	22.0%
63	20.0%	20.0%	18.0%	28	47.0%	40.0%	39.0%	22.5%	44.0%	28.0%
64	20.0%	20.0%	18.0%	29	47.0%	40.0%	55.0%	30.0%	44.0%	28.0%
65	20.0%	25.0%	18.0%	30	47.0%	47.0%	33.0%	33.0%	44.0%	28.0%
66	20.0%	25.0%	18.0%	31	47.0%	47.0%	33.0%	33.0%	58.0%	28.0%
67	20.0%	25.0%	18.0%	32	50.0%	47.0%	50.0%	36.0%	58.0%	28.0%
68	20.0%	25.0%	18.0%	33	50.0%	47.0%	40.0%	39.0%	58.0%	44.0%
69	20.0%	25.0%	18.0%	34	50.0%	47.0%	40.0%	55.0%	58.0%	44.0%
70	20.0%	25.0%	18.0%	35	60.0%	47.0%	40.0%	33.0%	58.0%	44.0%
71	20.0%	25.0%	18.0%	36	60.0%	47.0%	40.0%	33.0%	58.0%	58.0%
72	20.0%	25.0%	18.0%	37	60.0%	50.0%	40.0%	50.0%	58.0%	58.0%
73	20.0%	25.0%	18.0%	38	60.0%	50.0%	40.0%	40.0%	58.0%	58.0%
74	20.0%	25.0%	18.0%	39	60.0%	50.0%	40.0%	40.0%	58.0%	58.0%
75+	100.0%	100.0%	100.0%	40+	60.0%	60.0%	40.0%	40.0%	58.0%	58.0%

1 For members participating before 9/1/2008. If service is at least 27 years, the rate is 35%.
2 For members participating on or after 9/1/2008. If age plus service is at least 87, the rate is 35%.
3 If service is at least 27 years, the rate is 30% for members participating before 9/1/2008. If age plus service is at least 87, the rate is 30% for members participating on or after 9/1/2008.
4 For members participating before 9/1/2008. The annual rate of service retirement is 100% at age 65.
5 For members participating on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.
6 For members participating before 9/1/2008. The annual rate of service retirement is 100% at age 62.
7 For members participating on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.
8 For members whose participation began before 9/1/2008. The annual rate of service retirement is 100% at age 55.
9 For members whose participation began on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.

Mortality Assumptions: The mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females). For healthy retired members and beneficiaries, the mortality table used is the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set back 1 year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set back 4 years for males) is used for the period after disability retirement. There is some margin in the current mortality tables for possible future improvement in mortality rates and that margin will be reviewed again when the next experience investigation is conducted.

Table 4. Sample Annual Rates of Mortality

Age	Active Member Mortality		Retired Member Mortality*		Disabled Member Mortality*	
	Males	Females	Males	Females	Males	Females
Under 20	0.02%	0.01%	0.03%	0.02%	-	-
22	0.02%	0.01%	0.04%	0.02%	-	-
32	0.03%	0.01%	0.05%	0.03%	-	-
42	0.06%	0.02%	0.12%	0.07%	2.17%	0.72%
52	0.13%	0.06%	0.26%	0.18%	2.54%	1.29%
62	0.39%	0.17%	0.78%	0.50%	3.50%	2.06%
72	1.12%	0.53%	2.24%	1.59%	4.68%	3.66%

* For members retiring on or after July 1, 2006.

Withdrawal Rates The probability, or likelihood, of active members terminating employment prior to retirement is provided in Table 5 on the following page. The withdrawal rate is a function of service. These assumptions were adopted in 2014.

Table 5. Selected Rates of Termination Prior to Retirement

Years of Service	KERS Non-Hazardous	KERS Hazardous	Years of Service	CERS Non-Hazardous	CERS Hazardous	Years of Service	SPRS
	0-1	22.50%		25.00%	0-1		28.00%
1-2	15.50%	10.50%	1-2	16.00%	13.00%	1-2	7.00%
2-3	12.50%	7.50%	2-3	12.00%	10.50%	2-9	3.00%
3-4	10.50%	6.50%	3-4	10.00%	9.00%	9 & Over	2.50%
4-5	9.00%	5.50%	4-5	8.00%	8.00%		
5-6	6.50%	4.50%	5-6	6.00%	7.00%		
6-7	5.50%	3.00%	6-7	5.00%	7.00%		
7-8	5.00%	3.00%	7-8	5.00%	6.00%		
8-9	4.50%	3.00%	8-13	4.00%	6.00%		
9-10	4.50%	2.50%	13 & Over	3.00%	6.00%		
10-11	4.00%	2.50%					
11-13	4.00%	2.00%					
13-15	3.50%	2.00%					
15 & Over	3.00%	2.00%					



Rates of Disablement: KRS provides disability benefits for those individuals meeting specific qualifications established by state law. This assumption provides the probability, or likelihood, that a member will become disabled during the course of employment for various age levels. These assumptions were adopted in 2014.

This assumption provides the probability, or likelihood, that a member will become disabled during the course of employment for various age levels.

Rate of Disablement					
	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
Nearest Age	Probability	Probability	Probability	Probability	Probability
20	0.02%	0.03%	0.02%	0.05%	0.05%
30	0.03%	0.05%	0.03%	0.09%	0.09%
40	0.07%	0.10%	0.07%	0.20%	0.20%
50	0.19%	0.28%	0.19%	0.56%	0.56%
60	0.49%	0.73%	0.49%	1.46%	1.46%

Summary of Actuarial Valuation Results

	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
Recommended Rate Fiscal 2015-2016					
Pension Fund Contribution	41.98%	20.48%	14.48%	22.20%	71.57%
Insurance Fund Contribution	8.41%	1.34%	4.70%	9.35%	18.10%
Recommended Employer Contribution	50.39%	21.82%	19.18%	31.55%	89.67%
Funded Status as of Valuation Date					
PENSION FUND					
Actuarial Liability	\$13,224,698,427	\$936,706,126	\$11,076,456,794	\$3,704,456,223	\$775,160,294
Actuarial Value of Assets	\$2,112,286,498	\$559,487,184	\$6,535,372,347	\$2,139,119,173	\$234,567,536
Unfunded Liability on Actuarial Value of Assets	\$11,112,411,929	\$377,218,942	\$4,541,084,447	\$1,565,337,050	\$540,592,758
Funding Ratio on Actuarial Value of Assets	15.97%	59.73%	59.00%	57.74%	30.26%
Market Value of Assets	\$1,953,422,354	\$524,678,968	\$6,106,186,908	\$2,003,669,273	\$217,594,068
Unfunded Liability on Market Value of Assets	\$11,271,276,073	\$412,027,158	\$4,970,269,886	\$1,700,786,950	\$557,566,226
Funding Ratio on Market Value of Assets	14.77%	56.01%	55.13%	54.09%	28.07%
INSURANCE FUND					
Actuarial Liability	\$2,456,677,964	\$377,745,230	\$2,988,121,117	\$1,558,818,204	\$257,197,259
Actuarial Value of Assets	\$743,270,060	\$473,160,173	\$2,079,811,055	\$1,135,784,220	\$172,703,691
Unfunded Liability on Actuarial Value of Assets	\$1,713,407,904	(95,414,943)	\$908,310,062	\$423,033,984	\$84,493,568
Funding Ratio on Actuarial Value of Assets	30.26%	125.26%	69.60%	72.86%	67.15%
Market Value of Assets	\$695,188,649	\$440,596,305	\$1,943,756,727	\$1,062,602,089	\$161,366,312
Unfunded Liability on Market Value of Assets	\$1,761,489,315	(62,851,075)	\$1,044,364,390	\$496,216,115	\$95,830,947
Funding Ratio on Market Value of Assets	28.30%	116.64%	65.05%	68.17%	62.74%
MEMBER DATA					
Number of Active Members	37,779	3,959	80,664	9,084	908
Total Annual Payroll (Active Members) ¹	\$1,529,248,873	\$147,563,457	\$2,352,761,794	\$492,850,521	\$45,551,469
Average Annual Pay (Active Members)	\$40,479	\$37,273	\$29,167	\$54,255	\$50,167
Number of Retired Members & Beneficiaries	44,004	3,966	56,339	8,563	1,515
Average Annual Retirement Allowance	\$20,633	\$14,877	\$11,264	\$25,143	\$37,393
Number of Vested Inactive Members	10,399	481	14,357	775	65
Number of Inactive Members Due a Refund	38,641	4,444	67,935	2,055	390

¹ Annual payroll included in the Summary of Actuarial Valuation Results is based upon the annualized monthly payroll for active members as of the valuation date. The annual payroll recorded in the financial section is based upon the sum of the monthly payroll for active members recorded for each month of fiscal year ending June 30, 2016..

Recommended Employer Contribution Rates as of June 30, 2016

KERS Non-Hazardous

Valuation Date	Fiscal Year	Pension Fund Normal Cost	Pension Fund Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Rate
6/30/11	2012-2013	4.38%	23.65%	28.03%	16.52%	44.55%
6/30/12	2013-2014	4.26%	28.31%	32.57%	12.71%	45.28%
6/30/13	2014-2015	4.13%	26.71%	30.84%	7.93%	38.77%
6/30/14	2015-2016	4.10%	29.47%	33.57%	7.74%	41.31%
6/30/15	2016-2017	3.60%	35.33%	38.93%	8.35%	47.28%
6/30/16	2017-2018	4.93%	37.05%	41.98%	8.41%	50.39%

KERS Hazardous

Valuation Date	Fiscal Year	Pension Fund: Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Rate
6/30/11	2012-2013	7.47%	8.69%	16.16%	19.73%	35.89%
6/30/12	2013-2014	6.09%	10.91%	17.00%	11.84%	28.84%
6/30/13	2014-2015	5.79%	10.58%	16.37%	9.97%	26.34%
6/30/14	2015-2016	5.69%	11.40%	17.09%	7.12%	24.21%
6/30/15	2016-2017	6.93%	14.15%	21.08%	2.74%	23.82%
6/30/16	2017-2018	6.44%	14.04%	20.48%	1.34%	21.82%

The contribution rates for KERS Non-Hazardous and KERS Hazardous shown in the above tables are the full funding rates presented by the actuary in the 2011 through 2016 annual valuations. However, the actual employer contribution rates have been less than those shown above. As a result of HB 1 passed in 2008 the statute called for an employer contribution rate at an increasing percentage of the full funding rates until 100% was achieved in 2025 for KERS Non-Hazardous and 2019 for KERS Hazardous. SB2 eliminated this phase-in beginning with the June 30, 2013 actuarial valuation.

KERS Funds

The contribution rates for KERS Non-Hazardous and KERS Hazardous shown in the above tables are the full funding rates presented by the actuary in the 2011 through 2016 annual valuations. However, the actual employer contribution rates have been less than those shown above. As a result of HB 1 passed in 2008 the statute called for an employer contribution rate at an increasing percentage of the full funding rates until 100% was achieved in 2025 for KERS Non-Hazardous and 2019 for KERS Hazardous. SB2 eliminated this phase-in beginning with the June 30, 2013 actuarial valuation.

CERS Funds

The insurance fund contribution rates and the employer contribution rates for CERS Non-Hazardous and CERS Hazardous shown in the above tables are the full funding rates presented by the actuary in the 2011 through 2016 annual valuations. However, in the case of CERS Non-Hazardous and CERS Hazardous, in 2006 the actuary recommended a five-year phase-in of the rate which requires the payment of the insurance benefit normal cost with a five-year phase-in of the unfunded accrued liability (UAL) associated with the insurance funds. In 2008 this recommendation was changed to a ten-year phase-in from the initial starting date.

SPRS Funds

The contribution rates for SPRS shown in the above tables are the full funding rates presented by the actuary in the 2011 through 2016 annual valuations. However, the actual employer contribution rates have been less than those shown above. As a result of HB 1 passed in 2008 the statute called for an employer contribution rate at an increasing percentage of the full funding rates until 100% was achieved in 2025 for KERS Non-Hazardous and 2019 for KERS Hazardous. SB2 eliminated this phase-in beginning with the June 30, 2013 actuarial valuation.

Recommended Employer Contribution Rates as of June 30, 2016

CERS Non-Hazardous

Valuation Date	Fiscal Year	Pension Fund: Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Rate
6/30/11	2012-2013	4.68%	7.94%	12.62%	8.59%	21.21%
6/30/12	2013-2014	4.68%	9.06%	13.74%	5.84%	19.58%
6/30/13	2014-2015	4.35%	8.40%	12.75%	5.35%	18.10%
6/30/14	2015-2016	4.23%	8.19%	12.42%	4.88%	17.30%
6/30/15	2016-2017	3.80%	10.15%	13.95%	4.93%	18.88%
6/30/16	2017-2018	3.70%	10.78%	14.48%	4.70%	19.18%

CERS Hazardous

Valuation Date	Fiscal Year	Pension Fund: Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Rate
6/30/11	2012-2013	7.40%	12.70%	20.10%	21.84%	41.94%
6/30/12	2013-2014	6.44%	15.33%	21.77%	16.02%	37.79%
6/30/13	2014-2015	6.35%	14.38%	20.73%	14.97%	35.70%
6/30/14	2015-2016	6.21%	14.05%	20.26%	13.42%	33.68%
6/30/15	2016-2017	4.52%	17.19%	21.71%	9.79%	31.50%
6/30/16	2017-2018	4.40%	17.80%	22.20%	9.35%	31.55%

The insurance fund contribution rates and the employer contribution rates for CERS Non-Hazardous and CERS Hazardous shown in the above tables are the full funding rates presented by the actuary in the 2011 through 2016 annual valuations. However, in the case of CERS Non-Hazardous and CERS Hazardous, in 2006 the actuary recommended a five-year phase-in of the rate which requires the payment of the insurance benefit normal cost with a five-year phase-in of the unfunded accrued liability (UAL) associated with the insurance funds. In 2008 this recommendation was changed to a ten-year phase-in from the initial starting date.

Recommended Employer Contribution Rates as of June 30, 2016

SPRS

Valuation Date	Fiscal Year	Pension Fund Normal Cost	Pension Fund Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Rate
6/30/10	2011-2012	7.75%	32.05%	39.80%	54.83%	94.63%
6/30/11	2012-2013	8.12%	39.36%	47.48%	55.93%	103.41%
6/30/12	2013-2014	8.14%	45.21%	53.35%	43.17%	96.52%
6/30/13	2014-2015	8.46%	45.44%	53.90%	21.86%	75.76%
6/30/14	2015-2016	8.39%	50.05%	58.44%	19.17%	77.61%
6/30/15	2016-2017	8.77%	57.70%	66.47%	18.87%	85.34%
6/30/16	2017-2018	11.16%	60.41%	71.57%	18.10%	89.67%

The contribution rates for SPRS shown in the above tables are the full funding rates presented by the actuary in the 2011 through 2016 annual valuations. However, the actual employer contribution rates have been less than those shown above. As a result of HB 1 passed in 2008 the statute called for an employer contribution rate at an increasing percentage of the full funding rates until 100% was achieved in 2025 for KERS Non-Hazardous and 2019 for KERS Hazardous. SB2 eliminated this phase-in beginning with the June 30, 2013 actuarial valuation.

Summary of Actuarially Unfunded (Overfunded) Liabilities as of June 30, 2016

KERS Non-Hazardous Pension Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$11,182,142,032	\$3,276,986,087	\$3,538,878,093	\$7,455,155,945	\$7,643,263,939	33.3%	31.7%
6/30/12	\$11,361,048,136	\$3,101,316,738	\$2,980,401,603	\$8,259,731,398	\$8,380,646,533	27.3%	26.2%
6/30/13	\$11,386,602,159	\$2,636,122,852	\$2,747,428,086	\$8,750,479,307	\$8,639,174,073	23.2%	24.1%
6/30/14	\$11,550,110,224	\$2,423,956,716	\$2,560,419,519	\$9,126,153,508	\$8,989,690,705	21.0%	22.2%
6/30/15	\$12,359,672,849	\$2,350,989,940	\$2,307,858,072	\$10,008,682,909	\$10,051,814,777	19.0%	18.7%
6/30/16	\$13,224,698,427	\$2,112,286,498	\$1,953,422,354	\$11,112,411,929	\$11,271,276,073	16.0%	14.8%

KERS Non-Hazardous Insurance Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$4,280,089,633	\$451,620,442	\$433,305,243	\$3,828,469,191	\$3,846,784,390	10.6%	10.1%
6/30/12	\$3,125,330,157	\$446,080,511	\$430,805,726	\$2,679,249,646	\$2,694,524,431	14.3%	13.8%
6/30/13	\$2,128,754,134	\$497,584,327	\$509,364,080	\$1,631,169,807	\$1,619,390,054	23.4%	23.9%
6/30/14	\$2,226,759,925	\$621,236,646	\$664,775,708	\$1,605,523,279	\$1,561,984,217	27.9%	29.9%
6/30/15	\$2,413,705,252	\$695,018,262	\$687,684,080	\$1,718,686,990	\$1,726,051,172	28.8%	28.5%
6/30/16	\$2,456,677,964	\$743,270,060	\$695,188,649	\$1,713,407,904	\$1,761,489,315	30.3%	28.3%

KERS Hazardous Pension Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$721,293,444	\$510,748,505	\$510,628,492	\$210,544,939	\$210,664,952	70.8%	70.8%
6/30/12	\$752,699,457	\$497,226,296	\$478,103,794	\$255,473,161	\$274,595,663	66.1%	63.5%
6/30/13	\$783,980,594	\$505,656,808	\$513,162,166	\$278,323,786	\$270,818,428	64.5%	65.5%
6/30/14	\$816,850,063	\$527,897,261	\$559,504,340	\$288,952,802	\$257,345,723	64.6%	68.5%
6/30/15	\$895,433,387	\$556,687,757	\$550,120,310	\$338,745,630	\$345,313,077	62.2%	61.4%
6/30/16	\$936,706,126	\$559,487,184	\$524,678,968	\$377,218,942	\$412,027,158	59.7%	56.0%

KERS Hazardous Insurance Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$507,058,767	\$329,961,615	\$321,071,515	\$177,097,152	\$185,987,252	65.1%	63.3%
6/30/12	\$384,592,406	\$345,573,948	\$333,298,119	\$39,018,458	\$51,294,287	89.9%	86.7%
6/30/13	\$385,517,675	\$370,774,403	\$374,309,576	\$14,743,272	\$11,208,099	96.2%	97.1%
6/30/14	\$396,986,820	\$419,395,867	\$435,503,976	(\$22,409,047)	(\$38,517,156)	105.6%	109.7%
6/30/15	\$374,904,234	\$451,514,191	\$441,626,285	(\$76,609,957)	(\$66,72,051)	120.4%	117.8%
6/30/16	\$377,745,230	\$473,160,173	\$440,596,305	(\$95,414,943)	(\$62,851,075)	125.3%	116.6%

Continued. Summary of Actuarially Unfunded Liabilities as of June 30, 2016

CERS Non-Hazardous Pension Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$8,918,085,025	\$5,629,611,183	\$5,577,252,295	\$3,288,473,842	\$3,340,832,730	63.1%	62.5%
6/30/12	\$9,139,567,695	\$5,547,235,599	\$5,372,769,813	\$3,592,332,096	\$3,766,797,882	60.7%	58.8%
6/30/13	\$9,378,876,114	\$5,637,094,483	\$5,780,830,355	\$3,741,781,631	\$3,598,045,759	60.1%	61.6%
6/30/14	\$9,772,522,616	\$6,117,133,692	\$6,507,300,157	\$3,655,388,924	\$3,265,222,459	62.6%	66.6%
6/30/15	\$10,740,325,421	\$6,474,848,513	\$6,416,853,506	\$4,265,476,908	\$4,323,471,915	60.3%	59.8%
6/30/16	\$11,076,456,794	\$6,535,372,347	\$6,106,186,908	\$4,541,084,447	\$4,970,269,886	59.0%	55.1%

CERS Non-Hazardous Insurance Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$3,073,973,205	\$1,433,450,793	\$1,451,984,026	\$1,640,522,412	\$1,621,989,179	46.6%	47.2%
6/30/12	\$2,370,771,288	\$1,512,853,851	\$1,439,226,170	\$857,917,437	\$931,545,118	63.8%	60.7%
6/30/13	\$2,443,894,100	\$1,628,244,197	\$1,633,696,661	\$815,649,903	\$810,197,439	66.6%	66.9%
6/30/14	\$2,616,914,600	\$1,831,199,465	\$1,899,557,376	\$785,715,135	\$717,357,224	70.0%	72.6%
6/30/15	\$2,907,827,440	\$1,997,456,463	\$1,948,454,097	\$910,370,977	\$959,373,343	68.7%	67.0%
6/30/16	\$2,988,121,117	\$2,079,811,055	\$1,943,756,727	\$908,310,062	\$1,044,364,390	69.6%	65.0%

CERS Hazardous Pension Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$2,859,041,052	\$1,779,545,393	\$1,760,602,934	\$1,079,495,659	\$1,098,438,118	62.2%	61.6%
6/30/12	\$3,009,992,047	\$1,747,379,297	\$1,677,940,479	\$1,262,612,750	\$1,332,051,568	58.1%	55.8%
6/30/13	\$3,124,205,593	\$1,801,691,410	\$1,830,657,969	\$1,322,514,183	\$1,293,547,624	56.7%	58.6%
6/30/14	\$3,288,825,753	\$1,967,640,027	\$2,082,998,414	\$1,321,185,726	\$1,205,827,339	59.8%	63.3%
6/30/15	\$3,613,307,547	\$2,096,782,956	\$2,073,397,045	\$1,516,524,591	\$1,539,910,502	58.0%	57.4%
6/30/16	\$3,704,456,223	\$2,139,119,173	\$2,003,669,273	\$1,565,337,050	\$1,700,786,950	57.7%	54.1%

CERS Hazardous Insurance Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$1,647,702,755	\$770,790,274	\$774,509,101	\$876,912,481	\$873,193,654	46.8%	47.0%
6/30/12	\$1,364,843,057	\$829,040,842	\$788,070,813	\$535,802,215	\$576,772,244	60.7%	57.7%
6/30/13	\$1,437,332,817	\$892,774,391	\$894,232,297	\$544,558,426	\$543,100,520	62.1%	62.2%
6/30/14	\$1,493,864,379	\$997,733,237	\$1,034,307,636	\$496,131,142	\$459,556,743	66.8%	69.2%
6/30/15	\$1,504,015,233	\$1,087,707,118	\$1,061,560,788	\$416,308,115	\$442,454,445	72.3%	70.6%
6/30/16	\$1,558,818,204	\$1,135,784,220	\$1,062,602,089	\$423,033,984	\$496,216,115	72.9%	68.2%



Continued. Summary of Actuarially Unfunded Liabilities as of June 30, 2016

SPRS Pension Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$634,379,401	\$285,580,631	\$279,934,443	\$348,798,770	\$354,444,958	45.0%	44.1%
6/30/12	\$647,688,665	\$259,791,575	\$252,896,868	\$387,897,090	\$394,791,797	40.1%	39.1%
6/30/13	\$651,580,654	\$241,800,328	\$248,559,040	\$409,780,326	\$403,021,614	37.1%	38.2%
6/30/14	\$681,118,402	\$242,741,735	\$260,763,486	\$438,376,667	\$420,354,916	35.6%	38.3%
6/30/15	\$734,156,446	\$248,387,946	\$246,968,144	\$485,768,500	\$487,188,302	33.8%	33.6%
6/30/16	\$775,160,294	\$234,567,536	\$217,594,068	\$540,592,758	\$557,566,226	30.3%	28.1%

SPRS Insurance Fund

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
6/30/11	\$438,427,763	\$123,687,289	\$127,367,947	\$314,740,474	\$311,059,816	28.2%	29.1%
6/30/12	\$333,903,782	\$124,372,072	\$125,567,846	\$209,531,710	\$208,335,936	37.3%	37.6%
6/30/13	\$222,326,743	\$136,321,060	\$142,830,916	\$86,005,683	\$79,495,827	61.3%	64.2%
6/30/14	\$234,271,127	\$155,594,760	\$165,167,805	\$78,676,367	\$69,103,322	66.4%	70.5%
6/30/15	\$254,838,710	\$167,774,940	\$165,018,209	\$87,063,770	\$89,820,501	65.8%	64.8%
6/30/16	\$257,197,259	\$172,703,691	\$161,366,312	\$84,493,568	\$95,830,947	67.2%	62.7%

Valuation Balance Sheets give the basis for determining the percentage rates for contributions to be made by employers.

Analysis of Financial Experience

Gains or Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience (in Millions) as of June 30, 2016

Type of Activity	Retirement Gain	Insurance Gain
KERS Non-Hazardous		
Age & Service Retirements. If members retire at older ages, there is a gain. If younger, a loss.	(34.0)	5.4
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(4.0)	(0.3)
Death-In Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.1)	(1.0)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	91.9	12.9
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed generates a gain; larger, a loss.	34.2	75.6
New Members. Additional unfunded accrued liability will produce a loss.	(10.2)	(26.2)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(70.9)	(15.7)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	43.3	27.3
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	1.5	(43.3)
Gain (or Loss) During Year From Financial Experience	51.7	34.7
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections.	(903.0)	0.0
Composite Gain (or Loss) During Year	(851.3)	34.7
KERS Hazardous		
Age & Service Retirements. If members retire at older ages, there is a gain. If younger, a loss.	(15.6)	(0.5)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.0	0.1
Death-In Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	(0.4)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	14.3	3.9
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed generates a gain; larger, a loss.	(20.3)	14.0
New Members. Additional unfunded accrued liability will produce a loss.	(6.1)	(3.9)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(14.4)	(12.1)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	7.4	6.0
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	2.1	10.4
Gain (or Loss) During Year From Financial Experience	(32.6)	17.5
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections.	0.0	0.0
Composite Gain (or Loss) During Year	(32.6)	17.5

Continued. Gains or Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience (in Millions) as of June 30, 2016

Type of Activity	Retirement Gain	Insurance Gain
CERS Non-Hazardous		
Age & Service Retirements. If members retire at older ages, there is a gain. If younger, a loss.	(81.2)	7.1
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(30.3)	(1.5)
Death-In Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(1.3)	(2.0)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	75.9	26.5
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed generates a gain; larger, a loss.	23.5	83.8
New Members. Additional unfunded accrued liability will produce a loss.	(18.6)	(20.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(148.8)	(64.0)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	1.2	33.6
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(0.8)	(45.8)
Gain (or Loss) During Year From Financial Experience	(180.4)	17.6
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections.	0.0	0.0
Composite Gain (or Loss) During Year	(180.4)	17.6
CERS Hazardous		
Age & Service Retirements. If members retire at older ages, there is a gain. If younger, a loss.	(233.5)	(5.7)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(9.2)	0.9
Death-In Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	(0.9)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	19.2	(0.1)
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed generates a gain; larger, a loss.	(3.8)	63.1
New Members. Additional unfunded accrued liability will produce a loss.	(7.9)	(3.8)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(52.2)	(33.4)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	255.6	18.2
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(0.3)	(37.9)
Gain (or Loss) During Year From Financial Experience	(32.0)	0.4
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections.	0.0	0.0
Composite Gain (or Loss) During Year	(32.0)	0.4



Continued. Gains or Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience (in Millions) as of June 30, 2016

Type of Activity	Retirement Gain	Insurance Gain
SPRS		
Age & Service Retirements. If members retire at older ages, there is a gain. If younger, a loss.	(11.2)	(1.0)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.0	0.0
Death-In Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	0.0
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(1.3)	(0.8)
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed generates a gain; larger, a loss.	2.0	10.3
New Members. Additional unfunded accrued liability will produce a loss.	0.0	(0.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(6.2)	(3.9)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	26.8	1.2
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	1.2	(1.7)
Gain (or Loss) During Year From Financial Experience	11.3	4.0
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections.	(53.4)	0.0
Composite Gain (or Loss) During Year	(42.1)	4.0

Solvency Test *per Funds as of June 30, 2016*

KERS Non-Hazardous Pension Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	\$916,568,932	\$8,482,714,356	\$1,782,858,744	\$3,726,986,087	100.0%	33.1%	--
6/30/12	\$885,137,183	\$8,708,536,338	\$1,767,374,615	\$3,101,316,738	100.0%	25.4%	--
6/30/13	\$922,928,027	\$8,709,323,622	\$1,754,350,510	\$2,636,122,852	100.0%	19.7%	--
6/30/14	\$928,557,540	\$8,870,692,596	\$1,750,860,088	\$2,423,956,716	100.0%	16.9%	--
6/30/15	\$925,933,970	\$9,437,467,771	\$1,996,271,108	\$2,350,989,940	100.0%	15.1%	--
6/30/16	\$ 920,120,230	\$10,010,168,246	\$ 2,294,409,951	\$2,112,286,498	100.0%	11.9%	--

KERS Non-Hazardous Insurance Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	-	\$2,568,002,978	\$1,712,086,655	\$451,620,442	100.0%	17.6%	--
6/30/12	-	\$1,924,068,623	\$1,201,261,534	\$446,080,511	100.0%	23.2%	--
6/30/13	-	\$1,338,772,860	\$789,981,274	\$497,584,327	100.0%	37.2%	--
6/30/14	-	\$1,425,604,569	\$801,155,356	\$621,236,646	100.0%	43.6%	--
6/30/15	-	\$1,428,349,857	\$985,355,395	\$695,018,262	100.0%	48.7%	--
6/30/16	-	\$1,483,635,611	\$973,042,353	\$743,270,060	100.0%	50.1%	--

KERS Hazardous Pension Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	\$86,614,205	\$490,395,078	\$144,284,161	\$510,748,505	100.0%	86.5%	--
6/30/12	\$82,100,877	\$521,688,803	\$148,909,777	\$497,226,296	100.0%	79.6%	--
6/30/13	\$82,145,602	\$545,596,534	\$156,238,458	\$505,656,808	100.0%	77.6%	--
6/30/14	\$83,663,535	\$581,231,300	\$151,955,228	\$527,897,261	100.0%	76.4%	--
6/30/15	\$83,606,204	\$633,189,198	\$178,637,885	\$556,687,757	100.0%	74.7%	--
6/30/16	\$86,705,297	\$648,482,097	\$201,518,732	\$559,487,184	100.0%	72.9%	--

KERS Hazardous Insurance Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	-	\$285,539,861	\$221,518,906	\$329,961,615	100.0%	100.0%	20.1%
6/30/12	-	\$196,578,935	\$188,013,471	\$345,573,948	100.0%	100.0%	79.2%
6/30/13	-	\$202,031,515	\$183,486,160	\$370,774,403	100.0%	100.0%	92.0%
6/30/14	-	\$206,477,405	\$190,509,415	\$419,395,867	100.0%	100.0%	100%
6/30/15	-	\$221,114,995	\$153,789,239	\$451,514,191	100.0%	100.0%	100.0%
6/30/16	-	\$228,361,311	\$149,383,919	\$473,160,173	100.0%	100.0%	100.0%

Continued. Solvency Test as of June 30, 2016

CERS Non-Hazardous Pension Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	\$1,110,967,160	\$5,209,783,924	\$2,597,333,941	\$5,629,611,183	100.0%	86.7%	--
6/30/12	\$1,117,549,337	\$5,416,932,995	\$2,605,085,363	\$5,547,235,599	100.0%	81.8%	--
6/30/13	\$1,149,610,832	\$5,638,370,836	\$2,590,894,446	\$5,637,094,483	100.0%	79.6%	--
6/30/14	\$1,204,383,085	\$5,873,279,494	\$2,694,860,037	\$6,117,133,692	100.0%	83.6%	--
6/30/15	\$1,216,584,592	\$6,489,862,734	\$3,033,878,095	\$6,474,848,513	100.0%	81.0%	--
6/30/16	\$1,231,027,269	\$6,785,529,719	\$3,059,899,806	\$6,535,372,347	100.0%	78.2%	--

CERS Non-Hazardous Insurance Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	-	\$1,460,808,255	\$1,613,164,950	\$1,433,450,793	100.0%	98.1%	--
6/30/12	-	\$1,146,907,750	\$1,223,863,538	\$1,512,853,851	100.0%	100.0%	29.9%
6/30/13	-	\$1,205,599,287	\$1,238,294,813	\$1,628,244,197	100.0%	100.0%	34.1%
6/30/14	-	\$1,318,182,882	\$1,298,731,718	\$1,831,199,465	100.0%	100.0%	39.5%
6/30/15	-	\$1,372,596,636	\$1,535,230,804	\$1,997,456,463	100.0%	100.0%	40.7%
6/30/16	-	\$1,484,936,848	\$1,503,184,269	\$2,079,811,055	100.0%	100.0%	39.6%

CERS Hazardous Pension Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	\$382,072,055	\$1,768,511,545	\$708,457,452	\$1,779,545,393	100.0%	79.0%	--
6/30/12	\$381,672,428	\$1,889,884,303	\$738,435,316	\$1,747,379,297	100.0%	72.3%	--
6/30/13	\$390,471,059	\$1,988,029,963	\$745,704,571	\$1,801,691,410	100.0%	71.0%	--
6/30/14	\$415,069,629	\$2,077,516,709	\$796,239,415	\$1,967,640,027	100.0%	74.7%	--
6/30/15	\$422,358,688	\$2,297,703,167	\$893,245,692	\$2,096,782,956	100.0%	72.9%	--
6/30/16	\$428,713,398	\$2,388,711,595	\$887,031,230	\$2,139,119,173	100.0%	71.6%	--

CERS Hazardous Insurance Fund

Actuarial Liabilities					Liabilities Covered by Actuarial Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	-	\$771,631,287	\$876,071,468	\$770,790,274	100.0%	99.9%	--
6/30/12	-	\$575,099,089	\$789,743,968	\$829,040,842	100.0%	100.0%	32.2%
6/30/13	-	\$660,955,331	\$776,377,486	\$892,774,391	100.0%	100.0%	29.9%
6/30/14	-	\$700,311,599	\$793,552,780	\$997,733,237	100.0%	100.0%	37.5%
6/30/15	-	\$790,713,766	\$713,301,467	\$1,087,707,118	100.0%	100.0%	41.6%
6/30/16	-	\$879,360,070	\$679,458,134	\$1,135,784,220	100.0%	100.0%	37.7%

Continued. Solvency Test as of June 30, 2016

SPRS Pension Fund

Valuation Date	Actuarial Liabilities				Liabilities Covered by Actuarial Assets		
	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	\$43,574,097	\$499,194,229	\$91,611,075	\$285,580,631	100.0%	48.5%	--
6/30/12	\$41,139,306	\$523,016,647	\$83,532,712	\$259,791,575	100.0%	41.8%	--
6/30/13	\$39,788,421	\$535,720,195	\$76,072,038	\$241,800,328	100.0%	37.7%	--
6/30/14	\$41,831,465	\$563,011,026	\$76,275,911	\$242,741,735	100.0%	35.7%	--
6/30/15	\$41,567,127	\$605,854,905	\$86,734,414	\$248,387,946	100.0%	34.1%	--
6/30/16	\$41,870,846	\$636,498,907	\$96,790,541	\$234,567,536	100.0%	30.3%	--

SPRS Insurance Fund

Valuation Date	Actuarial Liabilities				Liabilities Covered by Actuarial Assets		
	(1) Active Member Contributions	(2) Retirees & Beneficiaries	(3) Active Members Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
6/30/11	-	\$252,439,726	\$185,988,037	\$123,687,289	100.0%	49.0%	--
6/30/12	-	\$190,258,729	\$143,645,053	\$124,372,072	100.0%	65.4%	--
6/30/13	-	\$139,508,590	\$82,818,153	\$136,321,060	100.0%	97.7%	--
6/30/14	-	\$143,402,126	\$90,869,001	\$155,594,760	100.0%	100.0%	13.4%
6/30/15	-	\$170,447,207	\$84,391,503	\$167,774,940	100.0%	98.4%	--
6/30/16	-	\$177,094,075	\$80,103,184	\$172,703,691	100.0%	97.5%	--

Active Member Valuation

Methodology The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the investment return assumption. The amount recognized each year is 20% of the difference between market value and expected market value. The Asset Valuation Method was adopted in 2006.

Summary of Active Member Valuation Data

KERS Non-Hazardous

Valuation Date	Number of Employers	Total Active Members	Annual Payroll ¹	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
6/30/11	427	46,617	\$1,731,632,748	\$37,146	(3.6)%	43.8	9.4
6/30/12	286	42,196	\$1,644,896,681	\$38,982	4.9%	44.3	9.8
6/30/13	285	42,226	\$1,644,408,698	\$38,943	(0.1)%	44.5	10.1
6/30/14	353	40,365	\$1,577,496,447	\$39,081	0.4%	44.8	10.5
6/30/15	348	39,056	\$1,544,234,409	\$39,539	1.2%	45.0	10.6
6/30/16	349	37,779	\$1,529,248,873	\$40,479	2.4%	45.1	10.7

¹Annual payroll included in the Schedule of Active Member Valuation Data is based upon the annualized monthly payroll for active members as of the valuation date. The annual payroll recorded in the financial section is based upon the sum of the monthly payroll for active members recorded for each month of fiscal year ending June 30, 2016.

KERS Hazardous

Valuation Date	Number of Employers	Total Active Members	Annual Payroll ¹	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
6/30/11	16	4,291	\$133,053,792	\$31,008	(7.3)%	41.3	6.9
6/30/12	14	4,086	\$131,976,754	\$32,300	4.2%	41.1	7.3
6/30/13	14	4,127	\$132,015,368	\$31,988	(1.0)%	40.6	7.2
6/30/14	18	4,024	\$129,076,038	\$32,077	0.3%	40.6	7.4
6/30/15	17	3,886	\$128,680,160	\$33,114	3.2%	40.7	7.5
6/30/16	17	3,959	\$147,563,457	\$37,273	12.6%	40.4	7.5

CERS Non-Hazardous

Valuation Date	Number of Employers	Total Active Members	Annual Payroll ¹	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
6/30/11	1,102	85,285	\$2,276,595,948	\$26,694	1.1%	46.8	9.0
6/30/12	1,080	83,052	\$2,236,546,345	\$26,929	0.9%	47.5	9.1
6/30/13	1,081	81,815	\$2,236,277,489	\$27,333	1.5%	47.8	9.3
6/30/14	1,101	81,115	\$2,272,270,287	\$28,013	2.5%	48.1	9.6
6/30/15	1,092	80,852	\$2,296,715,957	\$28,406	1.4%	48.0	9.5
6/30/16	1,095	80,664	\$2,352,761,794	\$29,167	2.7%	47.9	9.4

CERS Hazardous

Valuation Date	Number of Employers	Total Active Members	Annual Payroll ¹	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
6/30/11	281	9,407	\$466,963,860	\$49,640	1.7%	39.1	9.5
6/30/12	254	9,130	\$464,228,923	\$50,847	2.4%	39.3	10.3
6/30/13	248	9,123	\$461,672,567	\$50,605	(0.5)%	39.1	10.3
6/30/14	254	9,194	\$479,164,016	\$52,117	3.0%	39.2	10.6
6/30/15	246	9,172	\$483,640,601	\$52,730	1.2%	39.1	10.6
6/30/16	246	9,084	\$492,850,521	\$54,255	2.9%	39.1	10.6

SPRS

Valuation Date	Number of Employers	Total Active Members	Annual Payroll ¹	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
6/30/11	1	965	\$48,692,616	\$50,459	(5.9)%	37.7	10.6
6/30/12	1	907	\$48,372,506	\$53,332	5.7%	37.3	10.4
6/30/13	1	902	\$45,256,202	\$50,173	(5.9)%	37.0	10.0
6/30/14	1	855	\$44,615,885	\$52,182	4.0%	37.8	10.9
6/30/15	1	937	\$45,764,515	\$48,842	(6.4)%	36.8	9.8
6/30/16	1	908	\$45,551,469	\$50,167	2.7	37.0	10.0

¹Annual payroll included in the Schedule of Active Member Valuation Data is based upon the annualized monthly payroll for active members as of the valuation date. The annual payroll recorded in the financial section is based upon the sum of the monthly payroll for active members recorded for each month of fiscal year ending June 30, 2016.

Retired Member Valuation

Summary of Retired Member Valuation Data

KERS Non-Hazardous

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances	% Increase in Allowances	Average Annual Allowance
6/30/11	1,592	940	38,597	\$821,197,278	2.41%	\$21,276
6/30/12	1,707	1,078	39,226	\$844,880,945	2.88%	\$21,539
6/30/13	1,982	1,014	40,194	\$872,139,782	3.23%	\$21,698
6/30/14	2,067	1,038	41,223	\$888,430,310	1.87%	\$21,552
6/30/15	2,140	1,094	42,269	\$905,961,226	1.97%	\$21,433
6/30/16	2,441	706	44,004	\$934,929,767	5.81%	\$21,246

KERS Hazardous

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances	% Increase in Allowances	Average Annual Allowance
6/30/11	288	59	3,064	\$45,609,229	10.93%	\$14,886
6/30/12	243	54	3,253	\$49,231,205	7.94%	\$15,134
6/30/13	229	52	3,430	\$51,122,456	3.84%	\$14,905
6/30/14	256	66	3,620	\$54,271,718	6.16%	\$14,992
6/30/15	203	65	3,758	\$56,431,099	3.98%	\$15,016
6/30/16	237	29	3,966	\$59,000,949	4.55%	\$14,877

CERS Non-Hazardous

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances	% Increase in Allowances	Average Annual Allowance
6/30/11	3,250	1,077	43,211	\$483,594,068	6.84%	\$11,191
6/30/12	3,300	1,207	45,304	\$515,008,362	6.50%	\$11,368
6/30/13	3,570	1,198	47,676	\$557,979,192	8.34%	\$11,704
6/30/14	3,480	1,221	49,935	\$582,957,825	4.48%	\$11,674
6/30/15	4,020	1,304	52,651	\$617,550,928	5.93%	\$11,729
6/30/16	4,409	721	56,339	\$661,216,570	7.07%	\$11,736

CERS Hazardous

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances	% Increase in Allowances	Average Annual Allowance
6/30/11	502	102	6,468	\$160,259,395	9.08%	\$24,777
6/30/12	483	73	6,878	\$173,221,483	8.09%	\$25,185
6/30/13	519	104	7,293	\$182,634,895	5.43%	\$25,042
6/30/14	469	116	7,646	\$191,007,832	4.58%	\$24,981
6/30/15	526	138	8,034	\$202,153,338	5.84%	\$25,162
6/30/16	604	75	8,563	\$215,302,101	6.50%	\$25,143

The Annualized Retirement Allowance is the annualized value of the monthly retirement allowance for retired members and beneficiaries as of the valuation date. Consequently, the values will not match the fiscal year total benefit payments recorded in the financial section

SPRS

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances	% Increase in Allowances	Average Annual Allowance
6/30/11	52	12	1,263	\$47,467,404	4.29%	\$37,583
6/30/12	52	16	1,299	\$49,887,093	5.10%	\$38,404
6/30/13	63	16	1,346	\$50,905,789	2.04%	\$37,820
6/30/14	95	28	1,413	\$53,432,446	4.96%	\$37,815
6/30/15	62	15	1,460	\$54,930,421	2.80%	\$37,624
6/30/16	65	10	1,515	\$56,649,918	3.13%	\$37,393

The Annualized Retirement Allowance is the annualized value of the monthly retirement allowance for retired members and beneficiaries as of the valuation date. Consequently, the values will not match the fiscal year total benefit payments recorded in the financial section.

Summary of Benefit Provisions

KERS & CERS Non-Hazardous Plans

Plan Funding

State statute requires active members to contribute 5% of creditable compensation. For members participating on or after September 1, 2008 an additional 1% of creditable compensation is required. This amount is credited to the Insurance Fund and is non-refundable to the member. Employers contribute at the rate determined by the Board to be necessary for the actuarial soundness of the systems, as required by KRS 61.565 and KRS 61.752. KERS rates are subject to state budget approval.

Membership Eligibility

For non-school board employers, all regular full-time positions that average 100 or more hours of work per month over a fiscal or calendar year. For school board employers, all regular full-time positions that average 80 hours of work per month over the actual days worked during the school year.

Retirement Eligibility for Non-Hazardous

	Age	Years of Service	Allowance Reduction
TIER 1	Members Whose Participation Began Before 9/1/2008		
	65	4	None
	Any	27	None
	55	5	6.5% per year for first five years, and 4.5% for next five years before age 65 or 27 years of service.
TIER 2	Any	25	6.5% per year for first five years, and 4.5% for next five years before age 65 or 27 years of service.
	Members Whose Participation Began On or After 9/1/2008 but before 1/1/2014		
	65	5	None
TIER 3	57	Rule of 87	None
	60	10	6.5% per year for first five years, and 4.5% for next five years before age 65 or Rule of 87 (age plus years of service).
	Members Whose Participation Began On or After 1/1/2014		
TIER 3	65	5	None
	57	Rule of 87	None



Benefit Formula for Tiers 1 for Non-Hazardous

Final Compensation	Benefit Factor		Years of Service
Average of the five highest if participation began before 9/1/2008.	KERS 1.97% if:	Member does not have 13 months credit for 1/1/1998-1/1/1999.	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
	KERS 2.00% if:	Member has 13 months credit from 1/1/1998-1/1/1999.	
	KERS 2.20% if:	Member has 20 or more years of service, including 13 months from 1/1/1998-1/1/1999 and retires by 1/1/2009.	
	CERS 2.20% if:	Member begins participating prior to 8/1/2004.	



Benefit Formula for Tiers 2 for Non-Hazardous

Average of the last complete five if participation began on or after 9/1/2008 but before 1/1/2014.	CERS 2.00% if:	Member begins participating on or after 8/1/2004 and before 9/1/2008.
	KERS & CERS increasing percent based on service at retirement* plus 2.00% for each year of service over 30 if:	Member begins participating on or after 8/1/2008 but before 1/1/2014.

*Service (and Benefit Factor): 10 years or less (1.10%); 10 - 20 years (1.30%); 20 - 26 years (1.50%); 26 - 30 years (1.75%)



Benefit Formula for Tiers 3 for Non-Hazardous & Hazardous

$$(A-B) = C \times 75\% = D \text{ then } B+D = \text{Interest}$$

System	A 5 Year Geometric Average Return	B 2016 Rate	C Upside Sharing Interest	D Interest Rate Earned	Interest Rate Earned (4% + Upside)	Total Interest Credited To Members' Accounts
KERS Non-Hazardous	5.10%	4.00%	1.10%	0.83%	4.83%	\$380,458
KERS Hazardous	5.32%	4.00%	1.32%	0.92%	4.92%	\$110,239
CERS Non-Hazardous	5.16%	4.00%	1.16%	0.87%	4.87%	\$672,783
CERS Hazardous	5.34%	4.00%	1.34%	1.01%	5.01%	\$147,772
SPRS	5.10%	4.00%	1.10%	0.83%	4.83%	\$13,511

This interest was calculated on the members' balances as of June 30, 2015, and credited to each member account on June 30, 2016.



Summary of Benefit Provisions

KERS & CERS Non-Hazardous Plans

Post-Retirement Death Benefits

If the member is receiving a monthly benefit based on at least four (4) years of creditable service, the retirement system will pay a \$5,000 death benefit payment to the beneficiary named by the member specifically for this benefit.

Disability Benefits

Members participating before 8/1/2004 may retire on account of disability provided the member has at least 60 months of service credit and is not eligible for an unreduced benefit. Additional service credit may be added for computation of benefits under the benefit formula.

Members participating on or after 8/1/2004 but before 1/1/2014 may retire on account of disability provided the member has at least 60 months of service credit. Benefits are computed as the higher of 20% of Final Rate of Pay or the amount calculated under the Benefit Formula based upon actual service.

Members participating on or after 1/1/2014 may retire on account of disability provided the member has at least 60 months of service credit. The account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 20% of the member's monthly final rate of pay or the annuitized account into a single life annuity option.

Members disabled as a result of a single duty-related injury or act of violence related to their job may be eligible for special benefits.

Pre-Retirement Death Benefits

The beneficiary of a deceased active member will be eligible for a monthly benefit if the member was: (1) eligible for retirement at the time of death or, (2) under the age of 55 with at least 60 months of service credit and currently working for a participating agency at the time of death or (3) no longer working for a participating agency but at the time of death had at least 144 months of service credit. If the beneficiary of a deceased active member is not eligible for a monthly benefit, the beneficiary will receive a lump sum payment of the member's contributions and any accumulated interest.

Cost of Living Adjustment

The Kentucky General Assembly has the authority to increase, suspend or reduce Cost of Living Adjustments. Senate Bill 2 of 2013 eliminated all future COLAs unless the State Legislature so authorizes on a biennial basis and either (1) the system is over 100% funded or (2) the Legislature appropriates sufficient funds to pay the increased liability for the COLA.

Insurance Benefits

For members participating prior to July 1, 2003, KRS pays a percentage of the monthly premium for single coverage based upon the service credit accrued at retirement. Members participating on or after July 1, 2003 and before September 1, 2008 are required to earn at least 10 years of service credit in order to be eligible for insurance benefits at retirement. Members participating on or after September 1, 2008 are required to earn at least 15 years of service credit in order to be eligible for insurance benefits at retirement. The monthly health insurance contribution will be \$10 for each year of earned service increased by the CPI prior to July 1, 2009, and by 1.5% annually from July 1, 2009.

Refunds

Upon termination of employment, a refund of member contributions and accumulated interest is available to the member.

Interest on Accounts

For Tier 1 employees participating prior to September 1, 2008, the interest paid is set by the Board of Directors and will not be less than 2%, for Tier 2 employees participating on, or after, September 1, 2008, but before January 1, 2014, interest will be credited at a rate of 2.5%. For Tier 3 employees participating on, or after, January 1, 2014, interest will be credited at a minimum rate of 4%.

Summary of Benefit Provisions

KERS Hazardous, CERS Hazardous & SPRS Systems

Plan Funding

State statute requires active members to contribute 8% of creditable compensation. For Tier 2 members participating on, or after, September 1, 2008, an additional 1% of creditable compensation is required. This amount is credited to the Insurance Fund and is non-refundable to the member. Employers contribute at the rate determined by the Board to be necessary for the actuarial soundness of the systems, as required by KRS 61.565 and KRS 61.752. KERS & SPRS rates are subject to state budget approval.

Membership Eligibility

All regular full-time hazardous duty positions approved by the Board that average 100 or more hours of work per month over a fiscal or calendar year.

State statute requires active members to contribute 5% of creditable compensation. For Tier 2 members, an additional 1% of creditable compensation is required for health insurance.

Retirement Eligibility for Hazardous

Age	Years of Service	Allowance Reduction
-----	------------------	---------------------



Members Whose Participation Began Before 9/1/2008

55	5	None
Any	20	None
50	15	6.5% per year for first five years, and 4.5% for next five years before age 55 or 20 years of service.
Any	25	6.5% per year for first five years, and 4.5% for next five years before age 65 or 27 years of service.



Members Whose Participation Began On or After 9/1/2008 but before 1/1/2014

60	5	None
Any	25	None
50	15	6.5% per year for first five years, and 4.5% for next five years before age 60 or 25 years of service.



Members Whose Participation Began On or After 1/1/2014

60	5	None
Any	25	None

Benefit Formula for Hazardous for Tier 1 and Tier 2 (Tier 3 see page 168)

Final Compensation	Benefit Factor	Years of Service
Average of the three highest if participation began before 9/1/2008.	KERS 2.49%, CERS 2.50%, SPRS 2.50%, if:	Member begins participating before 9/1/2008.
Average of the three highest complete years if participation began on or after 9/1/2008.	KERS, CERS and SPRS increasing percent based on service at retirement* if:	Member begins participating on or after 9/1/2008 but before 1/1/2014.

* Service (with Benefit Factor): 10 years or less (1.30%); 10 - 20 years (1.50%); 20 - 25 years (2.25%) 25 + years (2.50%)



Tier 3

Member begins participating on or after 1/1/2014: Each year that a member is an active contributing member to the System, the member and the member's employer will contribute 8% and 7.5% of creditable compensation respectively into a current account. This current account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the current account balance on June 30 based on the account balance as of June 30 of the previous year. Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

Disability Benefits

Members hired before 8/1/2004 may retire on account of disability provided the member has at least 60 months of service credit and is not eligible for an unreduced benefit. Additional service credit may be added for computation of benefits under the formula noted above.

Members hired on or after 8/1/2004 but before 1/1/2014 may retire on account of disability provided the member has at least 60 months of service credit. Benefits are computed as the higher of 25% of Final Rate of Pay or the amount calculated under the Benefit Formula based upon actual service.

Members participating on or after 1/1/2014 may retire on account of disability provided the member has at least 60 months of service credit. The account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 25% of the member's monthly final rate of pay or the annuitized account into a single life annuity option.

Members disabled as a result of a single duty-related injury or act of violence related to their job may be eligible for special benefits.

Pre-Retirement Death Benefits

The beneficiary of a deceased active member will be eligible for a monthly benefit if the member was: (1) eligible for retirement at the time of death or, (2) under the age of 55 with at least 60 months of service credit and currently working for a participating agency at the time of death or (3) no longer working for a participating agency but at the time of death had at least 144 months of service credit. If the beneficiary of a deceased active member is not eligible for a monthly benefit, the beneficiary will receive a lump sum payment of the member's contributions and any accumulated interest.

Post-Retirement Death Benefits

If the member is receiving a monthly benefit based on at least four (4) years of creditable service, the retirement system will pay a \$5,000 death benefit payment to the beneficiary named by the member specifically for this benefit.

Cost of Living Adjustment

The Kentucky General Assembly has the authority to increase, suspend or reduce Cost of Living Adjustments. Senate Bill 2 of 2013 eliminated all future COLAs unless the State Legislature so authorizes on a biennial basis and either (1) the system is over 100% funded or (2) the Legislature appropriates sufficient funds to pay the increased liability for the COLA.

Insurance Benefits

For members participating prior to July 1, 2003, KRS pays a percentage of the monthly premium for single coverage based upon the service credit accrued at retirement. Hazardous duty members are also eligible for an additional contribution for dependents based upon hazardous service only. Members participating on or after July 1, 2003 and before September 1, 2008 are required to earn at least 10 years of service credit in order to be eligible for insurance benefits at retirement. Members participating on or after September 1, 2008 are required to earn at least 15 years of service credit in order to be eligible for insurance benefits at retirement. The monthly health insurance contribution will be \$15.00 for each year of earned service increased by the CPI prior to July 1, 2009, and by 1.5% annually from July 1, 2009.

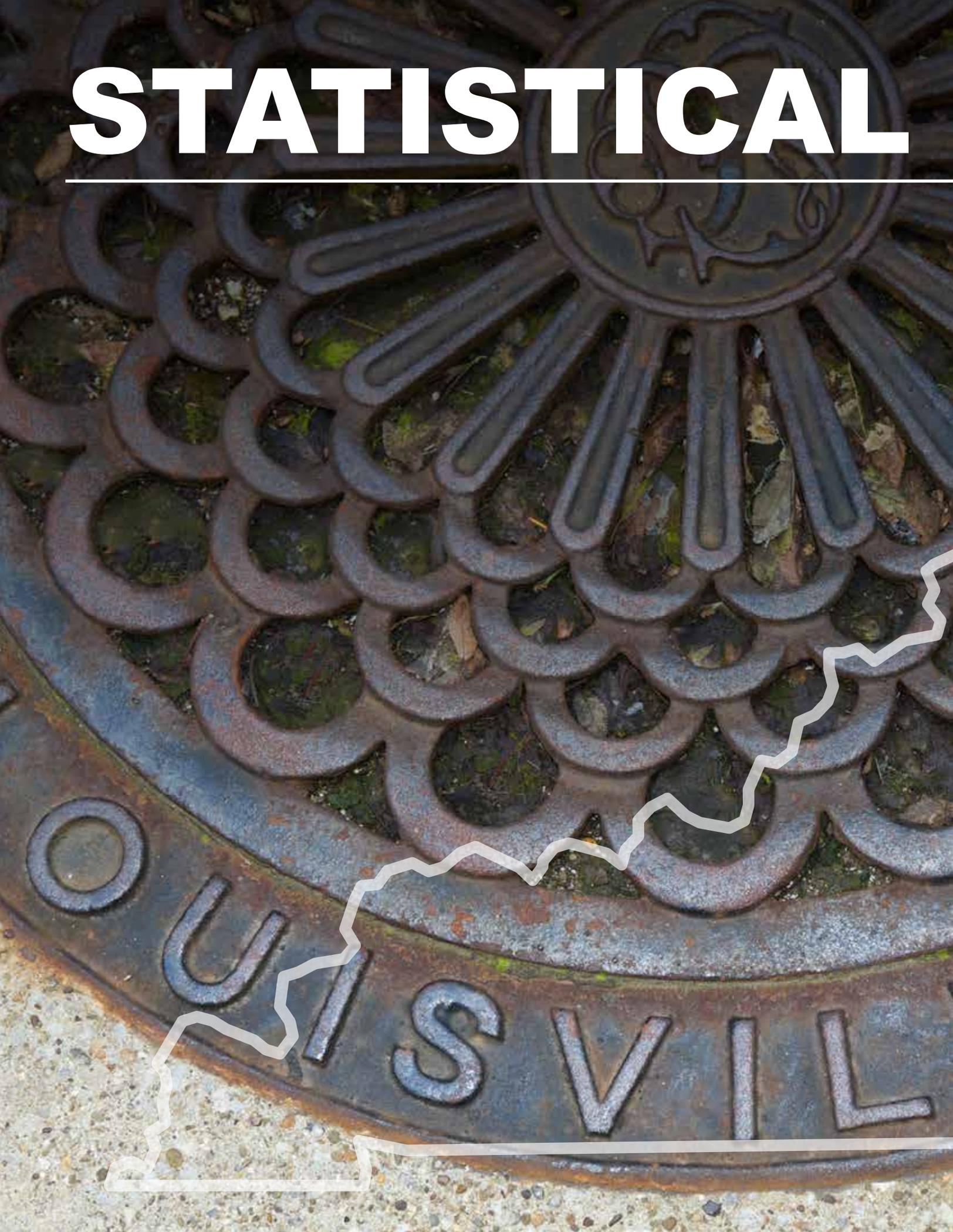
Refunds

Upon termination of employment, a refund of member contributions and accumulated interest is available to the member.

Interest on Accounts

For Tier 1 employees participating prior to September 1, 2008, the interest paid is set by the Board of Directors and will not be less than 2%, for Tier 2 employees participating on, or after, September 1, 2008, but before January 1, 2014, interest will be credited at a rate of 2.5%. For Tier 3 employees participating on, or after, January 1, 2014, interest will be credited at a minimum rate of 4%.

STATISTICAL



STATISTICAL TABLE OF CONTENTS

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Kentucky Retirement Systems Membership Totals

Fiscal Year	Active	Inactive	Retired	Total
2011	144,894	95,025	84,680	324,599
2012	139,352	107,353	87,472	334,177
2013	137,368	112,462	90,796	340,626
2014	137,138	117,039	93,946	348,123
2015	136,318	121,604	97,630	355,552
2016	135,517	126,468	102,725	364,710

FUND Statistics

DEFINITIONS

Active members are those members who are currently employed by a participating agency and contributing to the Systems as a condition of employment. **Inactive** members are those members who are no longer employed with a participating agency but have not yet retired or taken a refund of contributions.

Retired members include both members and beneficiaries who are receiving a monthly benefit from the Systems.

The data reflects the number of accounts in each system. A single member may have multiple accounts, which contribute to one pension. Each person is only counted once in the Membership by System report. A member who has both a membership account and a retired account is included in the retired count. Members who have multiple membership accounts are included under the system where they most recently contributed. Members who have more than one retirement account are included in the system with the greatest service credit. If the retired accounts have equal service credit, they are counted first in SPRS, CERS Hazardous, KERS Hazardous, CERS Non-Hazardous, then KERS Non-Hazardous. This table does not include individuals receiving payments under dependent child accounts, Qualified Domestic Relations Orders or multiple beneficiary accounts.

KERS Non-Haz Membership

Fiscal Year	Active	Inactive	Retired	Total
2011	46,044	33,350	36,239	115,633
2012	41,743	39,338	36,508	117,589
2013	40,710	40,375	37,240	118,325
2014	40,500	41,213	38,022	119,735
2015	39,289	42,479	38,827	120,595
2016	38,121	43,926	40,099	122,146

KERS Haz Membership

Fiscal Year	Active	Inactive	Retired	Total
2011	4,045	2,351	2,090	8,486
2012	4,007	2,597	2,180	8,784
2013	4,057	2,882	2,312	9,251
2014	4,094	3,318	2,467	9,879
2015	3,932	3,761	2,575	10,268
2016	3,987	4,067	2,739	10,793

CERS Non-Haz Membership

Fiscal Year	Active	Inactive	Retired	Total
2011	84,837	57,073	40,174	182,084
2012	83,658	63,280	42,068	189,006
2013	82,631	67,013	44,164	193,808
2014	82,494	70,231	46,112	198,837
2015	82,969	72,965	48,515	204,449
2016	83,346	75,904	51,673	210,923

CERS Haz Membership

Fiscal Year	Active	Inactive	Retired	Total
2011	9,019	2,047	5,158	16,224
2012	9,040	1,914	5,513	16,467
2013	9,069	1,956	5,840	16,865
2014	9,189	2,038	6,066	17,293
2015	9,188	2,142	6,389	17,719
2016	9,139	2,309	6,834	18,282

SPRS

Fiscal Year	Active	Inactive	Retired	Total
2011	949	204	1,019	2,172
2012	904	224	1,203	2,331
2013	901	236	1,240	2,377
2014	861	239	1,279	2,379
2015	940	257	1,324	2,521
2016	924	262	1,379	2,565



Principal Participating Employers in KERS

Participating Employer	Rank	Covered Employees	% of Total System
Department For Community Based Services	1	4,378	10.18%
Department Of Highways	2	3,927	9.13%
Department Of Corrections	3	3,821	8.89%
Judicial Department Administrative Office Of The Courts	4	1,356	3.15%
Department Of Juvenile Justice	5	1,277	2.97%
Bluegrass.org	6	959	2.23%
Kentucky State Police	7	951	2.21%
Eastern Kentucky University	8	939	2.18%
Department Of Revenue	9	890	2.07%
Dept For Behavioral Health Developmental Intellectual Disabilities	10	889	2.07%
All Others		23,611	54.91%
Total		42,998	100.00%

Schedule of Participating Employers in KERS

Agency Classification	Number of Agencies	Number of Employees
County Attorneys	61	331
Health Departments	61	2,672
Master Commissioner	36	76
Non-P1 State Agencies	39	1,345
Other Retirement Systems	2	287
P1 State Agencies	140	31,370
Regional Mental Health Units	12	2,839
Universities	7	4,075
Total	358	42,995
Total Employees By Tier Levels:		
Tier 1		26,014
Tier 2		9,586
Tier 3		7,395

Principal Participating Employers in CERS

Participating Employer	Rank	Covered Employees	% of Total System
Jefferson County Board Of Education	1	6,458	6.90%
Louisville Jefferson County Metro Government	2	5,133	5.49%
Fayette County Board Of Education	3	1,885	2.02%
Judicial Department Administrative Office Of The Courts	4	1,633	1.75%
Lexington Fayette Urban County Government	5	1,588	1.70%
Pike County Board Of Education	6	1,203	1.29%
Boone County Board Of Education	7	1,120	1.20%
Bullitt County Board Of Education	8	1,065	1.14%
Hardin County Board Of Education	9	1,014	1.08%
Warren County Board Of Education	10	913	0.98%
All Others		71,527	76.47%
Total		93,539	100.00%

Schedule of Participating Employers in CERS

Agency Classification	Number of Agencies	Number of Employees
Airport Boards	5	514
Ambulance Services	20	401
Area Development Districts	14	721
Boards of Education	173	48,396
Cities	220	10,148
Community Action Agencies	21	2,797
Conservation Districts	49	62
County Attorneys	77	670
County Clerks	16	590
Development Authorities	6	11
Fire Departments	38	814
Fiscal Courts	118	10,931
Health Departments	1	342
Housing Authorities	42	444
Jailers	2	63
Libraries	86	1,241
Other Retirement Systems	2	3
P1 State Agencies	4	1,633
Parks and Recreation	7	66
Planning Commissions	16	229
Police Departments	2	16
Riverport Authorities	5	80
Sanitation Districts	9	350
Sheriff Departments	12	773
Special Districts & Boards	49	1,441
Tourist Commissions	23	174
Urban Government Agencies	2	6,721
Utility Boards	120	3,906
Total	1,140	93,537
Total Employees By Tier Levels:		
Tier 1		51,941
Tier 2		22,123
Tier 3		19,473

Schedule of Participating Employers in SPRS

Kentucky State Police - Uniformed Officers	1	934
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Total Employees By Tier Levels:

Tier 1	607
Tier 2	186
Tier 3	141

Average Monthly Benefit by Length of Service in KERS

Service Credit Range	KERS Non-Hazardous		KERS Hazardous	
	Number of Accounts	Average Monthly Benefit	Number of Accounts	Average Monthly Benefit
Under 5 Years	5,516	\$173	727	\$200
5 or more but less than 10	5,782	\$420	793	\$566
10 or more but less than 15	5,164	\$702	708	\$1,008
15 or more but less than 20	4,365	\$1,029	625	\$1,532
20 or more but less than 25	4,805	\$1,373	905	\$1,994
25 or more but less than 30	11,768	\$2,288	165	\$2,751
30 or more but less than 35	6,429	\$3,233	60	\$3,487
35 or more	2,537	\$4,567	9	\$3,633
Total	46,366	\$1,669	3,992	\$1,194

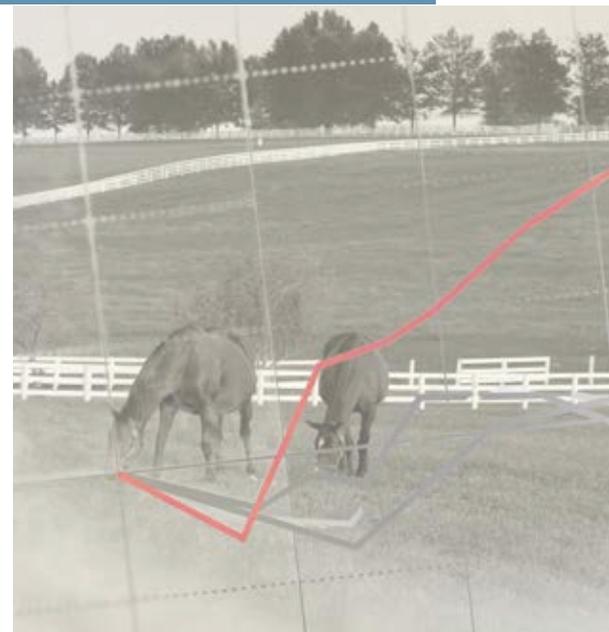
Average Monthly Benefit by Length of Service in CERS

Service Credit Range	CERS Non-Hazardous		CERS Hazardous	
	Number of Accounts	Average Monthly Benefit	Number of Accounts	Average Monthly Benefit
Under 5 Years	7,555	\$160	987	\$353
5 or more but less than 10	10,717	\$335	1,000	\$672
10 or more but less than 15	10,273	\$526	867	\$1,211
15 or more but less than 20	8,290	\$773	786	\$1,736
20 or more but less than 25	8,907	\$991	3,221	\$2,440
25 or more but less than 30	10,476	\$1,907	1,283	\$3,414
30 or more but less than 35	2,563	\$2,683	400	\$4,155
35 or more	685	\$3,690	91	\$5,128
Total	59,466	\$922	8,639	\$2,063

Average Monthly Benefit by Length of Service in SPRS

Service Credit Range	Number of Accounts	Average Monthly Benefit
Under 5 Years	124	\$530
5 or more but less than 10	52	\$943
10 or more but less than 15	51	\$1,333
15 or more but less than 20	93	\$2,005
20 or more but less than 25	462	\$2,613
25 or more but less than 30	460	\$3,612
30 or more but less than 35	234	\$4,719
35 or more	63	\$5,867
Total	1,539	\$3,062

This table reflects the Average Monthly Pension Benefit. A single member may have multiple accounts, which contribute to one pension. This table does not reflect dependent child accounts, Qualified Domestic Relations Order (QDRO) accounts or multiple beneficiary accounts.



Plan Net Position (*in Thousands*)

KERS

Fiscal Year	Non-Hazardous			Hazardous		
	Pension	Insurance	Total	Pension	Insurance	Total
June 30, 2011	3,544,242	428,659	3,972,901	511,085	320,673	831,758
June 30, 2012	2,977,935	418,490	3,396,425	476,589	330,730	807,319
June 30, 2013	2,760,753	496,040	3,256,793	514,592	372,883	887,475
June 30, 2014	2,578,290	646,905	3,225,195	561,484	433,525	995,009
June 30, 2015	2,327,782	665,639	2,993,421	552,468	439,113	991,581
June 30, 2016	1,980,292	668,318	2,648,610	527,880	437,880	965,277

CERS

June 30, 2011	5,583,451	1,446,998	7,030,449	1,761,858	773,139	2,534,997
June 30, 2012	5,381,602	1,428,821	6,810,423	1,672,970	785,874	2,458,844
June 30, 2013	5,795,568	1,618,960	7,414,528	1,833,571	891,320	2,724,891
June 30, 2014	6,528,147	1,878,711	8,406,858	2,087,002	1,030,303	3,117,305
June 30, 2015	6,440,800	1,920,946	8,361,746	2,078,202	1,056,480	3,134,682
June 30, 2016	6,141,396	1,908,550	8,049,946	2,010,177	1,056,097	3,066,274

For additional historical data for all charts presented, please visit our website for previous annual reports at <https://kyret.ky.gov/about/Publications/Pages/default.aspx>

SPRS

Fiscal Year	Pension	Insurance	Total
June 30, 2011	279,927	127,319	407,246
June 30, 2012	250,476	125,398	375,874
June 30, 2013	248,698	142,691	391,389
June 30, 2014	260,974	164,958	425,932
June 30, 2015	247,229	164,714	411,943
June 30, 2016	218,013	160,949	378,962

Kentucky Retirement Systems Total

Fiscal Year	Pension	Insurance	Total
June 30, 2011	11,680,563	3,096,788	14,777,351
June 30, 2012	10,758,706	3,089,313	13,848,019
June 30, 2013	11,153,182	3,521,894	14,675,076
June 30, 2014	12,015,897	4,154,402	16,170,299
June 30, 2015	11,646,481	4,246,892	15,893,373
June 30, 2016	10,877,757	4,231,311	15,109,068

Changes in Plan Net Position *(in Thousands)*

KERS Non-Hazardous Pension Fund

Additions	2011	2012	2013	2014	2015	2016
Members' Contributions	\$109,879	\$96,418	\$96,744	\$92,941	\$100,424	\$101,677
Employers' Contributions	185,558	211,071	280,874	296,836	520,949	512,670
Health Insurance Contributions (HB1)	2,441	5,337	3,344	4,546	4,181	4,817
Net Investment Income (Loss)	599,790	9,789	303,011	337,174	44,094	(20,662)
Bank of America Settlement	-	-	-	-	8,442	-
Pension Spiking	-	-	-	-	743	414
Total Additions	\$897,668	322,615	683,973	732,246	679,308	598,916
Deductions						
Benefit Payments	838,372	858,151	873,906	889,937	905,790	923,288
Refunds	10,931	12,004	12,907	13,627	13,552	12,130
Administrative Expenses	8,558	8,776	10,719	11,145	10,474	10,807
Capital Project Expenses	67	8	-	-	-	181
Total Deductions	857,928	878,939	897,532	914,709	929,816	946,406
Net Increase (Decrease) in Plan Net Position	\$39,740	(\$556,324)	(\$213,559)	(\$182,463)	(\$250,508)	(\$347,490)

KERS Non-Hazardous Insurance Fund

Additions	2011	2012	2013	2014	2015	2016
Employers' Contributions	\$123,256	\$146,844	\$162,191	\$164,176	\$132,208	\$131,935
Net Investment Income (Loss)	77,225	(4,803)	40,661	96,578	8,690	(3,904)
Retired Re-employed (HB1)	-	-	-	-	3,732	3,880
Member Drug Reimbursement	10,025	7,865	4,846	8	-	-
Premiums Rec'd from Retirees	15,826	15,666	14,294	918	272	240
Total Additions	\$226,332	\$165,563	221,992	264,273	144,902	132,151
Deductions						
Benefit Payments	161,804	163,841	140,157	112,671	125,272	126,550
Administrative Expenses	4,667	5,203	4,285	736	893	818
Total Deductions	166,471	169,044	144,442	113,407	126,168	129,469
Net Increase (Decrease) in Plan Net Position	\$59,861	\$169,044	\$77,550	\$150,865	\$18,734	\$2,679

Changes in Plan Net Position *(in Thousands)*

KERS Hazardous Pension Fund

Additions	2011	2012	2013	2014	2015	2016
Member Contributions	\$12,959	\$11,602	\$11,467	\$11,995	\$12,670	\$15,055
Employer Contributions	18,085	17,367	27,334	11,670	28,374	23,690
Health Insurance Contribution (HB1)	241	629	402	551	537	684
Net Investment Income (Loss)	83,492	(10,286)	51,497	80,549	8,572	(1,652)
Bank of America Settlement	-	-	-	-	767	-
Pension Spiking	-	-	-	-	162	70
Total Additions	\$114,777	19,312	90,700	104,941	51,211	37,847
Deductions						
Benefit Payments	44,509	48,424	48,855	54,320	56,774	59,306
Refunds	2,062	2,543	2,762	2,830	2,609	2,211
Administrative Expenses	721	877	733	897	844	903
Capital Project Expenses	6	-	-	-	-	15
Total Deductions	47,298	51,844	52,350	58,048	60,277	62,435
Net Increase (Decrease) in Plan Net Position	\$67,479	\$(32,532)	\$38,350	\$46,892	(\$9,016)	(\$24,588)

KERS Hazardous Insurance Fund

Additions	2011	2012	2013	2014	2015	2016
Employers' Contributions	\$18,826	\$23,984	\$25,144	\$23,336	\$14,173	\$15,929
Net Investment Income (Loss)	45,205	60	32,887	52,082	7,793	(882)
Retired Re-employed (HB1)	-	-	-	-	709	837
Member Drug Reimbursement	365	351	243	-	-	-
Premiums Rec'd from Retirees	588	876	895	37	14	(13)
Total Additions	64,984	25,271	59,169	76,126	22,689	15,871
Deductions						
Benefit Payments	15,327	13,941	16,837	15,405	17,000	17,490
Administrative Expenses	223	335	179	78	101	97
Total Deductions	15,550	14,276	17,016	15,482	17,101	17,587
Net Increase (Decrease) in Plan Net Position	\$49,434	\$10,995	\$42,153	\$60,642	\$5,588	(\$1,716)

Changes in Plan Net Position *(in Thousands)*

CERS Non-Hazardous Pension Fund

Additions	2011	2012	2013	2014	2015	2016
Members' Contributions	\$144,861	\$119,123	\$120,777	\$122,459	\$133,637	\$133,987
Employers' Contributions	247,968	270,664	294,914	324,231	297,714	282,767
Health Insurance Contribution (HB1)	3,216	5,101	4,659	6,109	6,674	7,687
Net Investment Income (Loss)	887,514	(3,349)	579,161	893,386	110,569	(40,799)
Bank of America Settlement	-	-	-	-	10,280	-
Pension Spiking	-	-	-	-	850	1,339
Total Additions	\$1,283,559	\$391,539	\$999,511	1,348,330	559,724	384,981
Deductions						
Benefit Payments	494,344	524,385	553,204	582,850	615,335	651,247
Refunds	11,816	12,765	13,306	14,286	13,524	13,754
Administrative Expenses	14,324	16,740	17,743	18,615	18,212	19,078
Capital Project Expenses	112	9	-	-	-	307
Total Deductions	520,596	553,899	584,253	615,751	647,071	684,385
Net Increase (Decrease) in Plan Net Position	\$762,963	\$(162,360)	\$415,258	\$732,579	(\$87,347)	(\$299,404)

CERS Non-Hazardous Insurance Fund

Additions	2011	2012	2013	2014	2015	2016
Employer Contributions	\$185,639	\$164,297	\$158,212	\$121,161	\$115,836	\$108,269
Net Investment Income (Loss)	274,743	(32,992)	147,194	231,743	36,731	(1,422)
Retired Re-employed (HB1)	-	-	-	-	3,608	3,567
Member Drug Reimbursement	10,449	8,443	5,360	6	-	-
Premiums Rec'd from Retirees	18,053	17,493	16,293	1,449	582	629
Total Additions	\$488,884	\$157,241	327,059	357,064	156,757	111,043
Deductions						-
Benefit Payments	131,945	141,694	132,489	96,804	113,734	122,713
Administrative Expenses	4,763	5,545	4,431	508	782	726
Total Deductions	136,708	147,239	136,920	97,312	114,522	123,439
Net Increase (Decrease) in Plan Net Position	\$352,176	\$10,002	\$190,139	\$259,751	\$42,235	(\$12,396)

Changes in Plan Net Position *(in Thousands)*

CERS Hazardous Pension Fund

Additions	2011	2012	2013	2014	2015	2016
Members' Contributions	\$53,918	\$41,797	\$42,863	\$42,631	\$46,609	\$51,554
Employers' Contributions	84,595	77,311	120,140	115,240	107,515	104,952
Health Insurance Contribution (HBI)	1,157	811	734	1,091	1,084	1,418
Net Investment Income (Loss)	286,688	(24,724)	181,171	287,816	37,104	(9,021)
Bank of America Settlement	-	-	-	-	2,865	-
Pension Spiking	-	-	-	-	557	762
Total Additions	\$426,358	95,195	344,908	447,452	195,734	149,665
Deductions						
Benefit Payments	167,540	169,352	179,696	189,635	200,134	213,448
Refunds	2,654	3,516	3,158	2,664	3,111	2,879
Administrative Expenses	1,191	1,319	1,202	1,721	1,289	1,337
Capital Project Expenses	9	-	-	-	-	26
Total Deductions	171,394	174,187	184,056	194,020	204,534	217,690
Net Increase (Decrease) in Plan Net Position	\$254,964	(\$79,992)	\$160,852	\$253,431	(\$8,800)	(\$68,025)

CERS Hazardous Insurance Fund

Additions	2011	2012	2013	2014	2015	2016
Employers' Contributions	\$98,203	\$90,204	\$84,962	\$74,265	\$71,008	\$66,575
Net Investment Income (Loss)	139,242	(16,127)	79,885	124,952	20,283	1,102
Retired Re-employed (HBI)	-	-	-	-	770	862
Member Drug Reimbursement	972	871	562	-	-	-
Premiums Rec'd from Retirees	516	695	657	32	10	(106)
Total Additions	\$238,933	\$75,643	\$166,066	200,101	92,071	68,615
Deductions						
Benefit Payments	51,831	50,155	59,941	60,843	65,553	68,518
Administrative Expenses	580	688	679	275	339	480
Total Deductions	52,411	50,843	60,620	61,117	65,894	68,998
Net Increase (Decrease) in Plan Net Position	\$186,522	\$24,800	\$105,446	\$138,983	\$26,177	(\$383)

Changes in Plan Net Position *(in Thousands)*

SPRS Pension Fund

Additions	2011	2012	2013	2014	2015	2016
Members' Contributions	\$5,225	\$5,154	\$4,495	\$5,005	\$5,150	\$5,149
Employers' Contributions	11,920	15,040	18,501	20,279	31,444	25,723
Health Insurance Contribution (HB1)	31	46	48	70	94	113
Net Investment Income (Loss)	44,739	43	25,954	40,291	3,427	(3,841)
Bank of America Settlement	-	-	-	-	646	-
Pension Spiking	-	-	-	-	546	99
Total Additions	61,915	20,283	48,998	65,729	41,307	27,243
Deductions						
Benefit Payments	46,754	48,867	50,559	53,026	54,766	56,268
Refunds	58	149	31	214	85	11
Administrative Expenses	124	73	184	215	201	176
Capital Project Expenses	1	-	-	-	-	4
Total Deductions	46,937	49,089	50,774	53,454	55,052	56,459
Net Increase (Decrease) in Plan Net Position	\$14,978	(\$28,806)	(\$1,776)	\$12,276	(\$13,745)	(\$29,216)

SPRS Insurance Fund

Additions	2011	2012	2013	2014	2015	2016
Employer Contributions	\$10,051	\$10,810	\$16,829	\$14,498	\$10,379	\$10,228
Net Investment Income (Loss)	24,773	(1,458)	12,993	20,458	2,921	(48)
Retired Re-employed (HB1)	-	-	-	-	3	9
Member Drug Reimbursement	318	279	178	-	-	-
Premiums Rec'd from Retirees	18	20	23	11	1	(29)
Total Additions	\$35,160	\$9,651	\$30,023	\$35,012	\$13,304	10,160
Deductions						
Benefit Payments	12,172	10,791	12,546	12,688	13,483	13,836
Administrative Expenses	179	201	184	58	65	89
Total Deductions	12,351	10,992	12,730	12,745	13,548	13,925
Net Increase (Decrease) in Plan Net Position	\$22,809	(\$1,341)	\$17,293	\$22,267	(\$244)	(\$3,765)

Schedule of Benefit Expenses

KERS Non-Hazardous

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
FY 2010-11				
Average Benefit	\$1,008	\$1,920	\$974	\$1,071
Number of Accounts	6,118	30,900	2,629	835
Total Monthly Benefits	\$6,166,372	\$59,318,561	\$2,561,377	\$894,077
% of Total Monthly Benefits	8.94%	86.04%	3.72%	1.30%
FY 2011-12				
Average Benefit	\$1,008	\$1,927	\$1,029	\$925
Number of Accounts	6,218	31,580	2,626	959
Total Monthly Benefits	\$6,269,576	\$60,879,802	\$2,702,410	\$887,236
% of Total Monthly Benefits	8.86%	86.06%	3.82%	1.25%
FY 2012-13				
Average Benefit	\$1,003	\$1,915	\$1,020	\$889
Number of Accounts	6,441	32,310	2,687	962
Total Monthly Benefits	\$6,459,840	\$61,882,399	\$2,740,491	\$855,033
% of Total Monthly Benefits	8.98%	86.02%	3.81%	1.19%
FY 2013-14				
Average Benefit	\$992	\$1,911	\$987	\$886
Number of Accounts	6,678	33,106	2,706	954
Total Monthly Benefits	\$6,624,472	\$63,255,779	\$2,671,749	\$845,468
% of Total Monthly Benefits	9.03%	86.18%	3.64%	1.15%
FY 2014-15				
Average Benefit	\$992	\$1,901	\$996	\$909
Number of Accounts	6,896	33,940	2,696	983
Total Monthly Benefits	\$6,843,193	\$64,503,048	\$2,684,720	\$893,407
% of Total Monthly Benefits	9.13%	86.09%	3.58%	1.19%
FY 2015-16				
Average Benefit	\$989	\$1,886	\$1,005	\$902
Number of Accounts	7,390	35,192	2,770	1,014
Total Monthly Benefits	\$7,312,293	\$66,383,638	\$2,784,928	\$914,804
% of Total Monthly Benefits	9.45%	85.77%	3.60%	1.18%

These tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order(QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

Schedule of Benefit Expenses

KERS Hazardous

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
FY 2010-11				
Average Benefit	\$957	\$1,526	\$600	\$814
Number of Accounts	1,571	1,240	158	79
Total Monthly Benefits	\$1,503,160	\$1,892,300	\$94,766	\$64,299
% of Total Monthly Benefits	42.29%	53.24%	2.66%	1.81%
FY 2011-12				
Average Benefit	\$976.67	\$1,541.49	\$581	\$721
Number of Accounts	1,657	1,339	180	92
Total Monthly Benefits	\$1,618,343	\$2,064,050	\$104,644	\$66,409
% of Total Monthly Benefits	42.00%	53.56%	2.72%	1.72%
FY 2012-13				
Average Benefit	\$961	\$1,543	\$662	\$725
Number of Accounts	1,751	1,417	190	93
Total Monthly Benefits	\$1,682,541	\$2,186,334	\$125,704	\$67,440
% of Total Monthly Benefits	41.42%	53.82%	3.10%	1.66%
FY 2013-14				
Average Benefit	\$971	\$1,560	\$649	\$749
Number of Accounts	1,851	1,497	191	89
Total Monthly Benefits	\$1,797,900	\$2,335,190	\$123,867	\$66,679
% of Total Monthly Benefits	41.58%	54.01%	2.86%	1.54%
FY 2014-15				
Average Benefit	\$986	\$1,556	\$661	\$714
Number of Accounts	1,912	1,566	193	90
Total Monthly Benefits	\$1,884,477	\$2,436,923	\$127,477	\$64,250
% of Total Monthly Benefits				
FY 2015-16				
Average Benefit	\$983.95	\$1,542.29	\$663.21	\$729.84
Number of Accounts	2,046	1,658	194	94
Total Monthly Benefits	\$2,011,530	\$2,557,114	\$128,663	\$68,605
% of Total Monthly Benefits	42.21%	53.65%	2.70%	1.44%

These tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order (QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

Schedule of Benefit Expenses

CERS Non-Hazardous

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
FY 2010-11				
Average Benefit	\$577	\$1,031	\$847	\$651
Number of Accounts	10,054	30,224	4,095	873
Total Monthly Benefits	\$5,802,568	\$31,149,398	\$3,469,974	\$568,188
% of Total Monthly Benefits	14.16%	75.99%	8.47%	1.38%
FY 2011-12				
Average Benefit	\$587	\$1,039	\$870	\$636
Number of Accounts	10,620	31,797	4,280	1,052
Total Monthly Benefits	\$6,237,369	\$33,041,035	\$3,724,859	\$669,377
% of Total Monthly Benefits	14.28%	75.66%	8.53%	1.53%
FY 2012-13				
Average Benefit	\$591	\$1,042	\$878	\$625
Number of Accounts	11,266	33,393	4,537	1,075
Total Monthly Benefits	\$6,661,524	\$34,797,169	\$3,982,213	\$672,310
% of Total Monthly Benefits	14.45%	75.46%	8.64%	1.45%
FY 2012-13				
Average Benefit	\$596	\$1,042	\$856	\$613
Number of Accounts	11,885	34,911	4,729	1,110
Total Monthly Benefits	\$7,081,048	\$36,375,607	\$4,047,035	\$680,784
% of Total Monthly Benefits	14.70%	75.49%	8.40%	1.41%
FY 2014-15				
Average Benefit	\$612	\$1,044	\$862	\$616
Number of Accounts	12,749	36,746	4,854	1,161
Total Monthly Benefits	\$7,801,662	\$38,375,001	\$4,186,130	\$715,032
% of Total Monthly Benefits	15.27%	75.13%	8.20%	1.40%
FY 2015-16				
Average Benefit	\$623	\$1,045	\$874	\$626
Number of Accounts	14,014	39,066	5,118	1,268
Total Monthly Benefits	\$8,724,563	\$40,823,334	\$4,472,723	\$793,726
% of Total Monthly Benefits	15.92%	74.48%	8.16%	1.45%

These tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order(QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

Schedule of Benefit Expenses

CERS Hazardous

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
FY 2010-11				
Average Benefit	\$1,432	\$2,410	\$1,362	\$1,153
Number of Accounts	1,643	4,082	487	90
Total Monthly Benefits	\$2,352,710	\$9,838,311	\$663,455	\$103,808
% of Total Monthly Benefits	18.16%	75.92%	5.12%	0.80%
FY 2011-12				
Average Benefit	\$1,430	\$2,422	\$1,300	\$1,046
Number of Accounts	1,766	4,407	662	110
Total Monthly Benefits	\$2,526,722	\$10,673,928	\$861,223	\$115,107
% of Total Monthly Benefits	17.82%	75.29%	6.07%	0.81%
FY 2012-13				
Average Benefit	\$1,433	\$2,429	\$1,121	\$1,073
Number of Accounts	1,883	4,683	681	119
Total Monthly Benefits	\$2,699,176	\$11,374,811	\$763,700	\$127,689
% of Total Monthly Benefits	18.04%	76.01%	5.10%	0.85%
FY 2013-14				
Average Benefit	\$1,467	\$2,437	\$1,125	\$1,008
Number of Accounts	1,974	4,873	695	119
Total Monthly Benefits	\$2,895,353	\$11,876,578	\$781,685	\$119,935
% of Total Monthly Benefits	18.47%	75.77%	4.99%	0.77%
FY 2014-15				
Average Benefit	\$1,480	\$2,448	\$1,145	\$954
Number of Accounts	2,097	5,139	688	127
Total Monthly Benefits	\$3,103,613	\$12,581,191	\$787,549	\$121,103
% of Total Monthly Benefits	18.70%	75.82%	4.75%	0.73%
FY 2015-16				
Average Benefit	\$1,494	\$2,453	\$1,137	\$975
Number of Accounts	2,269	5,485	742	143
Total Monthly Benefits	\$3,388,890	\$13,452,235	\$843,463	\$139,353
% of Total Monthly Benefits	19.01%	75.47%	4.73%	0.78%

These tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order(QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

Schedule of Benefit Expenses

SPRS

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
FY 2010-11				
Average Benefit	\$3,529	\$3,112	\$1,494	\$2,162
Number of Accounts	146	1,037	55	26
Total Monthly Benefits	\$515,270	\$3,226,744	\$82,184	\$56,210
% of Total Monthly Benefits	13.28%	83.15%	2.12%	1.45%
FY 2011-12				
Average Benefit	\$3,560	\$3,135	\$1,372	\$2,136
Number of Accounts	150	1,083	66	25
Total Monthly Benefits	\$534,132	\$3,396,203	\$90,562	\$53,404
% of Total Monthly Benefits	13.11%	83.36%	2.22%	1.31%
FY 2012-13				
Average Benefit	\$3,601	\$3,130	\$1,320	\$2,198
Number of Accounts	149	1,126	74	23
Total Monthly Benefits	\$536,481	\$3,524,248	\$97,681	\$50,563
% of Total Monthly Benefits	12.75%	83.73%	2.32%	1.20%
FY 2013-14				
Average Benefit	\$3,621	\$3,197	\$1,346	\$2,196
Number of Accounts	146	1,172	75	23
Total Monthly Benefits	\$528,611	\$3,747,012	\$100,974	\$49,197
% of Total Monthly Benefits	11.94%	84.66%	2.28%	1.11%
FY 2014-15				
Average Benefit	\$3,578	\$3,189	\$1,347	\$2,153
Number of Accounts	150	1,213	75	23
Total Monthly Benefits	\$536,649	\$3,867,971	\$101,018	\$49,524
% of Total Monthly Benefits	11.78%	84.91%	2.22%	1.09%
FY 2015-16				
Average Benefit	\$3,579	\$3,135	\$1,269	\$2,008
Number of Accounts	155	1,277	82	25
Total Monthly Benefits	\$554,743	\$4,002,993	\$104,056	\$50,196
% of Total Monthly Benefits	11.77%	84.95%	2.21%	1.07%

These tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order (QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

Analysis of Initial Retirees

	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS	KRS
FY 2010-11						
Number of Accounts	1,486	247	3,045	415	46	
Average Service Credit (months)	174	184	182	204	260	
Average Final Compensation	\$44,341	\$44,821	\$32,359	\$58,814	\$71,501	
Average Monthly Benefit	\$1,047	\$1,379	\$824	\$2,114	\$3,296	
Average System Payment for Health Insurance	\$264	\$516	\$284	\$777	\$874	
FY 2011-12						
Number of Accounts	1,641	206	3,160	410	47	
Average Service Credit (months)	190	169	185	210	276	
Average Final Compensation	\$45,528	\$45,815	\$32,709	\$57,756	\$71,298	
Average Monthly Benefit	\$1,162	\$1,312	\$872	\$2,149	\$3,556	
Average System Payment for Health Insurance	\$291	\$496	\$271	\$826	\$981	
FY 2012-13						
Number of Accounts	1,810	205	3,303	443	59	
Average Service Credit (months)	199	157	189	202	234	
Average Final Compensation	\$47,168	\$46,456	\$34,292	\$58,516	\$69,325	
Average Monthly Benefit	\$1,275	\$1,250	\$938	\$2,196	\$2,893	
Average System Payment for Health Insurance	\$303	\$433	\$259	\$853	\$994	
FY 2013-14						
Number of Accounts	2,037	245	3,529	430	77	
Average Service Credit (months)	202	165	182	194	260	
Average Final Compensation	\$46,480	\$46,595	\$33,816	\$57,718	\$70,009	
Average Monthly Benefit	\$1,278	\$1,296	\$879	\$2,021	\$3,322	
Average System Payment for Health Insurance	\$534	\$937	\$486	\$1,279	\$1,378	
FY 2014-15						
Number of Accounts	2,078	191	4,084	496	55	
Average Service Credit (months)	204	164	188	204	251	
Average Final Compensation	\$47,187	\$47,148	\$34,561	\$59,589	\$67,862	
Average Monthly Benefit	\$1,308	\$1,280	\$913	\$2,178	\$3,009	
Average System Payment for Health Insurance	\$549	\$906	\$489	\$1,254	\$1,376	
FY 2015-16						
Number of Accounts	2,043	205	4,151	522	57	6,739
Average Service Credit (months)	207	160	190	212	234	196
Average Final Compensation	\$47,429	\$44,494	\$34,632	\$58,977	\$65,535	\$38,758
Average Monthly Benefit	\$1,351	\$1,225	\$932	\$2,303	\$2,953	\$1,182
Average System Payment for Health Insurance	\$558	\$870	\$501	\$1,277	\$1,425	\$354

This table represents all individuals who had an initial retirement date within the fiscal year.



Payment Options Selected by Retired Members

	Basic	Lump Sum	Other	Period Certain	Pop Up	Social Security Adjustment	Survivorship
KERS Non-Hazardous							
Number of Accounts	15,777	2,173	14	5,881	8,841	3,342	10,338
Monthly Benefits	\$24,087,264	\$2,526,003	\$11,770	\$9,107,041	\$18,399,204	\$5,798,457	\$17,465,924
KERS Hazardous							
Number of Accounts	1,041	255	4	458	1,082	285	867
Monthly Benefits	\$1,145,084	\$259,539	\$2,414	\$501,183	\$1,524,159	\$330,925	\$1,002,609
CERS Non-Hazardous							
Number of Accounts	24,127	3,305	16	8,564	9,391	2,070	11,993
Monthly Benefits	\$19,114,794	\$2,210,212	\$7,340	\$7,214,895	\$11,491,970	\$2,706,968	\$12,068,165
CERS Hazardous							
Number of Accounts	1,413	472	28	784	3,371	540	2,031
Monthly Benefits	\$2,647,204	\$751,353	\$15,125	\$1,299,506	\$8,158,275	\$847,285	\$4,105,201
SPRS							
Number of Accounts	163	22	1	131	612	199	410
Monthly Benefits	\$477,067	\$51,466	\$893	\$321,156	\$2,135,476	\$406,553	\$1,319,379
KRS Total							
Number of Accounts	42,522	6,227	63	15,818	23,297	6,436	25,639
Monthly Benefits	\$47,471,413	\$5,798,573	\$37,542	\$18,443,781	\$41,709,084	\$10,090,188	\$35,961,278

*The information in this table represents accounts administered by KRS.
A single member may have multiple accounts, which contribute to one pension.*

EMPLOYER Contribution Rates

In KERS, CERS, and SPRS both the employee and the employer contribute a percentage of creditable compensation to the Systems.

The employee contribution rate is set by state statute. Non-hazardous employees contribute 5% while hazardous duty members contribute 8%. Employees hired on or after September 1, 2008, contribute an additional 1% to health insurance.

Under Kentucky Revised Statutes 61.565, KERS and SPRS employer contribution rates are set by the KRS Board of Trustees based on an annual actuarial valuation. However, KERS and SPRS employer rates are subject to approval by the Kentucky General Assembly through the adoption of the biennial Executive Branch Budget. In recent years, the Kentucky General Assembly has routinely suspended Kentucky Revised Statute 61.565 in the budget in order to provide an employer contribution rate that is less than the amount recommended by the Board's consulting actuary. The table in the Actuarial Section shows the KERS and SPRS employer contribution rates that were actuarially recommended in the annual valuation without any adjustments (Recommended Rate) and the rate specified by the Executive Branch budget bill for each fiscal year (Budgeted Rate).

The CERS employer contribution rates are also set by the Systems' Board under Kentucky Revised Statute 61.565 based on an annual actuarial valuation, unless altered by legislation enacted by the Kentucky General Assembly. The CERS employer contribution rates for fiscal year 2008-2009 were reduced from the actuarially recommended rate as a result of the passage of House Bill (HB) 1 during the 2008 Extraordinary Session of the Kentucky General Assembly. Also, during its 2009 Regular Session, the Kentucky General Assembly enacted HB 117, which mandated an extension of the phase-in of insurance contribution rates that had been previously approved by the KRS Board in 2006 from five years to 10 years to further mitigate the impact of the application of Governmental Accounting Standards Board Statements 43 and 45 on CERS employer contribution rates for health insurance. The "Recommended Rate" shown for CERS non-hazardous and hazardous plans are the actuarially recommended rates as set forth in the annual valuation. The "Budgeted Rate" shown for the two plans is the rate required by the 10 year phase-in mandated in KRS 61.565(6).

Employer Contribution Rates (percentages)						
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
KERS Non-Hazardous						
Budgeted Rate	16.98	19.82	23.61	26.79	38.77	38.77
Recommended Rate	38.58	40.71	44.55	45.28	38.77	38.77
KERS Hazardous						
Budgeted Rate	26.12	28.98	29.79	32.21	26.34	26.34
Recommended Rate	34.37	33.84	35.89	28.84	26.34	26.34
CERS Non-Hazardous						
Budgeted Rate	16.93	18.96	19.55	18.89	17.67	17.06%
Recommended Rate	19.81	21.29	21.21	19.58	17.67	17.06%
CERS Hazardous						
Budgeted Rate	33.25	35.76	37.60	35.70	34.31	32.95%
Recommended Rate	40.06	41.65	41.94	37.79	34.31	32.95%
SPRS						
Budgeted Rate	45.54	52.13	63.67	71.15	75.76	75.76
Recommended Rate	85.63	94.63	103.41	96.52	75.76	75.76

Retired RE-EMPLOYED

From August 1, 1998 through August 31, 2008, state law allowed retired members to return to work in the same system from which they retired and contribute to a new account provided the appropriate separation of service was observed. The following table provides information on the number of retired members currently drawing a monthly benefit who have subsequently returned to work and are contributing to a new account in the same retirement system.

Reemployed Retirees in Full-Time Positions Covered by Same System & Contributing to a New Account							
Reemployed Retirees in KRS	KERS			CERS			SPRS
	Non-Hazardous	Hazardous	TOTAL	Non-Hazardous	Hazardous	TOTAL	TOTAL
Total Active Employees	38,121	3,987	42,108	83,346	9,139	92,485	924
Total Retirees	40,099	4,067	44,166	51,673	6,834	58,507	1,379
Reemployed Retirees	373	30	403	458	394	852	82
% of Reemployed Retirees to Total Actives	0.98%	0.75%	0.96%	0.55%	4.31%	0.92%	8.87%
% of Reemployed Retirees to Total Retirees	0.93%	0.73%	0.91%	0.89%	5.77%	1.46%	5.95%
Average Age at Initial Retirement	49	47	49	51	46	49	46
Months of Service Credit at Initial Retirement	349	310	346	321	287	305	327
Final Compensation At Initial Retirement	\$53,206	\$45,724	\$52,649	\$41,082	\$55,094	\$47,562	\$57,725
Reemployed Retirees Avg. Annualized Salary Earned in Fiscal Year 2015-2016 (Second Retirement Account)	\$44,374	\$38,222	\$43,916	\$45,036	\$54,581	\$49,450	\$53,247
Retirees Returning to Work for the Same Employer	116	6	122	297	44	341	3

Analysis of age at retirement, service credit, final compensation, etc. only includes those retirees who have returned to work with a participating agency.

INSURANCE Contracts

The Systems provides medical insurance and other managed care coverage for eligible retired members.

Participation in the insurance program is optional and requires the completion of the proper forms at the time of retirement in order to obtain the insurance coverage. The Systems provides access to health insurance coverage through the Kentucky Employees Group Health Plan (KEHP) for recipients until they reach age 65 and/or become Medicare eligible. After a retired member becomes eligible for Medicare, coverage is available through a Medicare eligible plan offered by the Systems. A retired member's spouse and/or dependents may also be covered on health insurance through the Systems.

Insurance Benefits Paid to Retirees & Beneficiaries Participating in a KRS Health Insurance Plan					
	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
Number	30,706	2,567	34,370	7,359	1,638
Average Service Credit (Months)	312	265	260	281	326
Avg Monthly System Payment for Health Insurance	\$373	\$689	\$319	\$954	\$902
Avg Monthly Member Payment for Health Insurance	\$60	\$48	\$62	\$32	\$18
Total Monthly Payment for Health Insurance	\$12,395,933	\$1,562,499	\$12,267,565	\$5,968,957	\$1,168,108

Insurance Contracts by Type						
KERS Non-Hazardous	2011	2012	2013	2014	2015	2016
KEHP Parent Plus	732	734	618	506	452	441
KEHP Couple/Family	2,155	1,917	1,276	797	714	656
KEHP Single	10,321	9,764	9,364	9,491	9,251	8,876
Medicare without Prescription	1,821	1,721	1,474	1,370	1,303	19,447
Medicare with Prescription	13,988	15,015	16,834	17,738	18,577	1,286
KERS Hazardous						
KEHP Parent Plus	75	93	106	110	110	97
KEHP Couple/Family	521	517	451	448	448	439
KEHP Single	615	645	625	647	656	663
Medicare without Prescription	60	67	60	56	62	1,302
Medicare with Prescription	570	751	985	1,104	1,177	66

Insurance Contracts by Type

CERS Non-Hazardous

	2011	2012	2013	2014	2015	2016
KEHP Parent Plus	351	383	340	278	242	235
KEHP Couple/Family	1,552	1,317	857	546	473	465
KEHP Single	8,013	7,972	7,652	7,843	8,098	8,164
Medicare without Prescription	3,167	3,119	2,707	2,583	2,531	23,007
Medicare with Prescription	15,100	16,355	18,824	20,200	21,520	2,499

CERS Hazardous

KEHP Parent Plus	253	310	400	432	456	378
KEHP Couple/Family	2,156	2,237	2,155	2,184	2,255	2,321
KEHP Single	1,310	1,385	1,425	1,447	1,500	1,595
Medicare without Prescription	58	73	79	89	107	2,969
Medicare with Prescription	1,527	1,853	2,324	2,510	2,697	114

SPRS

KEHP Parent Plus	52	62	76	78	81	77
KEHP Couple/Family	474	444	421	444	441	355
KEHP Single	278	291	283	263	265	246
Medicare without Prescription	14	15	20	20	16	850
Medicare with Prescription	499	581	682	712	777	18

KRS Total

KEHP Parent Plus	1,463	1,582	1,540	1,404	1,341	1,228
KEHP Couple/Family	6,858	6,432	5,160	4,419	4,331	4,328
KEHP Single	20,537	20,057	19,349	19,691	19,770	19,544
Medicare without Prescription	5,120	4,995	4,340	4,118	4,019	47,575
Medicare with Prescription	31,684	34,555	39,649	42,264	44,748	3,983

Our Mission

The mission of Kentucky Retirement Systems (KRS) is to build the strength of the trust funds to ensure that adequate resources are available to meet all obligations, while helping members and beneficiaries achieve financial security in retirement. KRS is committed to efficiently and effectively administering the benefit programs established by the General Assembly. Members are current and former government employees or retirees, who either contribute money into our trust funds, or who are receiving pension benefits, or who will receive benefits or a refund of contributions in the future.



(502) 696-8800 or (800) 928-4646

Fax: (502) 696-8822

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Kentucky Retirement Systems

1260 Louisville Rd, Frankfort, KY 40601

Hours of Operation:

8:00 AM - 4:30PM (EST) Monday-Friday

Document Prepared By KRS Communications Division