

## **KENTUCKY RETIREMENT SYSTEMS**

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** Affirmative Action Plan

Pursuant to Section 3.03 of the Kentucky Retirement Systems Personnel Policies, the Kentucky Retirement Systems has implemented an Affirmative Action Plan to promote and assure equitable treatment of all persons who are now employed, being considered for employment, seeking employment, and who will be recruited for employment in the future. The Kentucky Retirement Systems has already taken substantial steps towards fulfilling the requirements of the Affirmative Action Plan, as described in Section 3.03(3) of the Personnel Policy.

The Kentucky Retirement Systems provides periodic training to its leadership team to ensure compliance with federal and state laws. Such training covers harassment based on all legally protected categories (race, color, sex, religion, national origin, age, and disability), anti discrimination laws in general, and reasonable accommodation and inquiries under the ADA.

The Kentucky Retirement Systems continues to seek appropriate recruitment sources for females and minorities.

The current employment statistics for the Kentucky Retirement Systems show that as of December 31, 2014, there are 252 full-time employees. There are 154 female employees, representing 61.11 % of the staff, and 24 employees who are members of minority groups, representing approximately 9.52% of the staff. Females make up 58.82% of the leadership positions in the Kentucky Retirement Systems, while employees who are members of minority groups hold 5.88% of the leadership positions in the Kentucky Retirement Systems.

In order to establish clear long term-hiring goals for minorities and females, Kentucky Retirement Systems will follow the goals provided by the Commonwealth of Kentucky's Personnel Cabinet. The current goal for minority employment in State Government is 11.2% through December 31, 2014.

**RECOMMENDATION:** This memorandum is presented for informational purposes only.

## KENTUCKY RETIREMENT SYSTEMS

OVERALL AND MINORITY FULL TIME EMPLOYMENT  
BY TYPE OF EMPLOYMENT AND DIVISION  
AS OF DECEMBER 31, 2014

KRS AREA/DIVISION	KRS EMPLOYMENT CATEGORY									TOTALS		
	LEADERSHIP			PROFESSIONAL			SUPPORT					
	Total	Minor.	(%)	Total	Minor.	(%)	Total	Minor.	(%)	Total	Minor.	(%)
Executive Staff	5	0	0.0%	2	1	0.0%	3	0	0.0%	10	1	10.0%
Communications	1	0	0.0%	5	0	0.0%	0	0	0.0%	6	0	0.0%
Legal	3	1	33.3%	7	0	0.0%	6	0	0.0%	16	1	6.3%
Human Resources	1	0	0.0%	3	1	33.3%	0	0	0.0%	4	1	25.0%
Internal Audit	1	0	0.0%	2	1	50.0%	0	0	0.0%	3	1	33.3%
Information Security	1	0	0.0%	2	0	0.0%	0	0	0.0%	3	0	0.0%
<b>Administration</b>	<b>12</b>	<b>1</b>	<b>8.3%</b>	<b>21</b>	<b>3</b>	<b>14.3%</b>	<b>9</b>	<b>0</b>	<b>0.0%</b>	<b>42</b>	<b>4</b>	<b>9.5%</b>
<b>Accounting</b>	4	0	0.0%	11	0	0.0%	0	0	0.0%	15	0	0.0%
<b>Disability &amp; Death</b>	5	0	0.0%	16	0	0.0%	4	0	0.0%	25	0	0.0%
<b>Employer Reporting Compliance &amp; Education</b>	3	0	0.0%	17	1	5.9%	0	0	0.0%	20	1	5.0%
<b>Information Technology</b>	5	0	0.0%	27	5	18.5%	5	0	0.0%	37	5	13.5%
<b>Investments</b>	2	0	0.0%	1	0	0.0%	0	0	0.0%	3	0	0.0%
<b>Member Services</b>	7	0	0.0%	30	3	10.0%	2	0	0.0%	39	3	7.7%
<b>Membership Support</b>	4	1	25.0%	20	1	5.0%	5	1	20.0%	29	3	10.3%
<b>Procurement &amp; Office Services</b>	4	1	25.0%	0	0	0.0%	11	4	36.4%	15	5	33.3%
<b>Retiree Health Care</b>	3	0	0.0%	15	1	6.7%	2	0	0.0%	20	1	5.0%
<b>Retiree Services (Payroll)</b>	2	0	0.0%	5	2	40.0%	0	0	0.0%	7	2	28.6%
<b>TOTALS</b>	<b>51</b>	<b>3</b>	<b>5.88%</b>	<b>163</b>	<b>16</b>	<b>9.82%</b>	<b>38</b>	<b>5</b>	<b>13.16%</b>	<b>252</b>	<b>24</b>	<b>9.52%</b>

**KENTUCKY RETIREMENT SYSTEMS**

OVERALL AND MINORITY (FEMALE) FULL TIME EMPLOYMENT  
BY TYPE OF EMPLOYMENT AND DIVISION  
AS OF DECEMBER 31, 2014

KRS AREA/DIVISION

KRS EMPLOYMENT CATEGORY

	LEADERSHIP			PROFESSIONAL			SUPPORT			TOTALS		
	Total	Female	(%)	Total	Female	(%)	Total	Female	(%)	Total	Female	(%)
Executive Staff	5	2	40.0%	2	1	0.0%	3	3	100.0%	10	6	60.0%
Communications	1	1	100.0%	5	3	60.0%	0	0	0.0%	6	4	66.7%
Legal	3	2	66.7%	7	4	57.1%	6	6	100.0%	16	12	75.0%
Human Resources	1	1	100.0%	3	3	100.0%	0	0	0.0%	4	4	100.0%
Internal Audit	1	1	100.0%	2	2	100.0%	0	0	0.0%	3	3	100.0%
Information Security	1	0	0.0%	2	1	50.0%	0	0	0.0%	3	1	33.3%
<b>Administration</b>	<b>12</b>	<b>7</b>	<b>58.3%</b>	<b>21</b>	<b>14</b>	<b>66.7%</b>	<b>9</b>	<b>9</b>	<b>100.0%</b>	<b>42</b>	<b>30</b>	<b>71.4%</b>
<b>Accounting</b>	4	3	75.0%	11	9	81.8%	0	0	0.0%	15	12	80.0%
<b>Disability &amp; Death</b>	5	5	100.0%	16	14	87.5%	4	4	100.0%	25	23	92.0%
<b>Employer Reporting Compliance &amp; Education</b>	3	2	66.7%	17	11	64.7%	0	0	0.0%	20	13	65.0%
<b>Information Technology</b>	5	1	20.0%	27	8	29.6%	5	1	20.0%	37	10	27.0%
<b>Investments</b>	2	0	0.0%	1	0	0.0%	0	0	0.0%	3	0	0.0%
<b>Member Services</b>	7	5	71.4%	30	16	53.3%	2	2	100.0%	39	23	59.0%
<b>Membership Support</b>	4	1	25.0%	20	9	45.0%	5	4	80.0%	29	14	48.3%
<b>Procurement &amp; Office Services</b>	4	2	50.0%	0	0	0.0%	11	8	72.7%	15	10	66.7%
<b>Retiree Health Care</b>	3	3	100.0%	15	8	53.3%	2	2	100.0%	20	13	65.0%
<b>Retiree Services (Payroll)</b>	2	1	50.0%	5	5	100.0%	0	0	0.0%	7	6	85.7%
<b>TOTALS</b>	<b>51</b>	<b>30</b>	<b>58.82%</b>	<b>163</b>	<b>94</b>	<b>57.67%</b>	<b>38</b>	<b>30</b>	<b>78.95%</b>	<b>252</b>	<b>154</b>	<b>61.11%</b>

## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board  
**FROM:** William A. Thielen, Esq.  
Executive Director  
**DATE:** February 24, 2015  
**SUBJECT:** Quarterly Reports of the Audit Committee

The Audit Committee held its quarterly meeting on February 5, 2015. The purpose of the meeting was to review and discuss, among other miscellaneous audit related items, the following:

- *Review of Quarterly Financial Statements 12/31/2014*
- *Review of Outstanding Invoices (Includes Employer Penalties/Waivers)*
- *Review of Management Follow up on Audit Findings and Recommendations Summary Dashboard*
- *Review of Fiscal Year End June 30, 2014, End of Year Audit Requirements*
- *Review of Management Follow up on Audit Findings and Recommendations Summary Dashboard*
- *Review of Internal Audit Budget 12/31/2014*
- *Review of Anonymous Reporting Spreadsheet*
- *Review of Investment Compliance Report*
- *State Police Employee Retirement System Board Election Memoranda*
- *Status of Current Audits Memoranda*
  - *Update to the Annual Audit Plan*
  - *The Audit Committee approved the changes to the Annual Audit Plan.*

*Members of the Board  
February 19, 2015  
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- *Review of Actuarial Audit Request for Proposals*
  - *The Audit Committee approved the issuance of the Actuarial Audit Request for Proposals with a change which specifies that the audit report will be presented to the KRS Audit Committee.*
  
- *Review of KRS Administrative Structure, Costs Audit Request for Proposals*

**RECOMMENDATION:** The Audit Committee requests that the Board ratify the actions taken by the Audit Committee.

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## **KENTUCKY RETIREMENT SYSTEMS**

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** Report of the KRS Retiree Health Plan Committee

The KRS Retiree Health Plan Committee (RHC) held a special meeting on January 22, 2015. The RHC reviewed a presentation by a representative from AON Hewitt regarding the Medicare Advantage Request for Proposal (RFP) time line and general and specific information about how the RFP would be created, reviewed and scored. The RHC approved a draft RFP with specific changes that have been redlined. The draft RFP with the changes approved by the RHC is being presented for approval by the Board at its February 24, 2015 meeting. The members of the RHC also requested that a second redline draft to capture additional recommendations from KRS Staff, KRS Health Insurance Consultant and Joe Cowles, Proxy for the Personnel Cabinet Secretary. This RFP solicits proposals to provide health insurance and related services to the KRS Medicare eligible members for the period January 1, 2016 through December 31, 2018 with options for three (3) one year renewals.

**RECOMMENDATION:** The Executive Director recommends that the Board ratify the RHC Committee action and to approve the issuance of the second redline draft RFP.

## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**RE:** Second Quarter Financial Highlights

### PENSION FUND

- Total contributions for the period increased 17 percent over the prior year period reflecting higher employer rates for KERS, KHAZ, and SPRS. However, Plan Net Assets decreased from the prior year due to decline in the fair value of investment balances, lower investment income, and benefit payments.
- The Pension Fund Net Plan Assets decreased from \$11.7 billion in FY14 to \$11.6 billion in FY15. The asset decline of \$122.1 million was due to unfavorable market conditions in the first half of FY15 and the payment funding needs of KERS, KHAZ, and SPRS. The chart below shows the asset decline for KERS, KHAZ and SPRS. Both CERS and CHAZ assets increased from last year related to market performance during the period of July – September 2014 partially offset by Q2 market conditions.

<b>KENTUCKY RETIREMENT SYSTEMS</b>						
<b>Net Position Comparison</b>						
	<b>KERS</b>	<b>KHAZ</b>	<b>CERS</b>	<b>CHAZ</b>	<b>SPRS</b>	
<b>NP as of 12/31/2014</b>	<b>\$2,412,612,557</b>	<b>\$542,838,552</b>	<b>\$6,344,338,486</b>	<b>\$2,042,298,601</b>	<b>\$246,153,875</b>	<b>\$11,588,242,070</b>
<b>NP as of 12/31/2013</b>	<b>2,679,506,271</b>	<b>549,566,772</b>	<b>6,229,623,583</b>	<b>1,989,915,258</b>	<b>261,780,922</b>	<b>11,710,392,806</b>
<b>Change in Net Position</b>	<b>(266,893,714)</b>	<b>(6,728,220)</b>	<b>114,714,903</b>	<b>52,383,343</b>	<b>(15,627,047)</b>	<b>(122,150,736)</b>

### INSURANCE FUND

- Although lower employer contribution rates have decreased incoming contributions for the reporting period, they still exceed outgoing benefit payments across all plans. The net income from investing activities declined for the first half of the FY 15 compared to the prior year due to unfavorable market conditions especially during the current quarter.

- The Insurance Fund had an increase in overall Net Plan Assets. Assets rose from \$3.9 billion in FY14 to \$4.1 billion in FY15 as noted in the chart below. Although impacted by market conditions, the invested positive net cash flow increased overall asset growth as noted below.

<b>KENTUCKY RETIREMENT SYSTEMS</b>						
<b>Net Position Comparison</b>						
	<b>KERS</b>	<b>KHAZ</b>	<b>CERS</b>	<b>CHAZ</b>	<b>SPRS</b>	
<b>12/31/2014</b>	<b>\$647,347,713</b>	<b>\$428,344,662</b>	<b>\$1,863,676,602</b>	<b>\$1,024,499,736</b>	<b>\$161,983,505</b>	<b>\$4,125,852,218</b>
<b>12/31/2013</b>	<b>593,962,195</b>	<b>406,599,599</b>	<b>1,770,985,216</b>	<b>974,041,070</b>	<b>155,744,165</b>	<b>3,901,332,245</b>
<b>Change in Net Position</b>	<b>53,385,518</b>	<b>21,745,063</b>	<b>92,691,386</b>	<b>50,458,666</b>	<b>6,239,340</b>	<b>224,519,973</b>

Attached are the Combining Statements of Net Plan Position and Changes in Net Plan Position for both the Pension Fund and Insurance Fund. In addition, a chart showing the trends of Total Plan Net Position over the last five (5) fiscal years has been included. Please note the FY 2015 contains only activity through the current reporting period.

**RECOMMENDATION:** These reports are provided for informational purposes only. No action is required of the Board.



**KENTUCKY RETIREMENT SYSTEMS**  
**COMBINING STATEMENTS OF NET PLAN POSITION**  
**PENSION FUNDS**  
**As of December 31, 2014**  
**(Unaudited)(In Whole Dollars)**

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013		
<b>ASSETS</b>									
Cash and Short-term Investments									
Cash Deposits	\$2,176,685	\$1,496,976	\$93,507	\$204,749	\$55,781	\$4,027,697	\$8,286,331	-51%	1
Short-term Investments	\$148,820,172	\$209,458,379	\$13,032,303	\$68,715,490	\$23,855,465	\$463,881,809	\$623,306,430	-26%	2
<b>Total Cash and Short-term Investments</b>	<b>\$150,996,856</b>	<b>\$210,955,355</b>	<b>\$13,125,810</b>	<b>\$68,920,239</b>	<b>\$23,911,245</b>	<b>\$467,909,506</b>	<b>\$631,592,760</b>	<b>-26%</b>	
<b>RECEIVABLES</b>									
Accounts Receivable	\$61,863,664	\$43,080,585	\$3,342,381	\$15,876,791	\$5,524,211	\$129,687,632	\$107,137,686	21%	3
Accounts Receivable - Investments	\$157,819,722	\$363,354,435	\$13,075,948	\$120,042,189	\$31,287,257	\$685,579,551	\$570,315,083	20%	4
Accounts - Alternate Participation				\$107,629		\$107,629	\$113,526	-5%	
<b>Total Receivables</b>	<b>\$219,683,385</b>	<b>\$406,435,020</b>	<b>\$16,418,329</b>	<b>\$136,026,609</b>	<b>\$36,811,469</b>	<b>\$815,374,812</b>	<b>\$677,566,294</b>	<b>20%</b>	
<b>INVESTMENTS, AT FAIR VALUE</b>									
Fixed Income	\$603,066,355	\$1,476,251,388	\$53,688,402	\$490,483,543	\$121,979,159	\$2,745,468,847	\$2,917,724,061	-6%	
Public Equities	\$847,022,750	\$2,973,179,217	\$107,767,999	\$939,225,663	\$241,492,791	\$5,108,688,421	\$5,302,371,183	-4%	
Private Equities	\$371,226,682	\$641,289,133	\$28,222,217	\$210,804,910	\$63,306,235	\$1,314,849,177	\$1,259,166,445	4%	
Derivatives	\$628,621	\$1,978,572	\$77,888	\$631,953	\$171,892	\$3,488,925	(\$660,404)	628%	5
Absolute Return	\$277,112,563	\$699,861,388	\$28,330,754	\$222,220,152	\$59,859,557	\$1,287,384,415	\$1,253,456,799	3%	
Real Estate	\$98,283,485	\$292,643,392	\$11,687,652	\$93,995,094	\$27,899,314	\$524,508,937	\$364,155,978	44%	6
<b>Total Investments, at Fair Value</b>	<b>\$2,197,340,455</b>	<b>\$6,085,203,091</b>	<b>\$229,774,912</b>	<b>\$1,957,361,315</b>	<b>\$514,708,948</b>	<b>\$10,984,388,721</b>	<b>\$11,096,214,063</b>	<b>-1%</b>	
<b>FIXED/INTANGIBLE ASSETS</b>									
Fixed Assets	\$821,864	\$1,518,647	\$8,782	\$137,744	\$82,214	\$2,569,251	\$6,949,965	-63%	7
Intangible Assets	\$5,559,575	\$9,363,350	\$91,632	\$775,454	\$464,278	\$16,254,290	\$16,254,290	0%	
Accumulated Depreciation	(\$758,668)	(\$1,400,453)	(\$8,202)	(\$126,887)	(\$75,827)	(\$2,370,037)	(\$2,881,177)	-18%	8
Accumulated Amortization	(\$2,334,503)	(\$3,862,092)	(\$44,951)	(\$321,773)	(\$185,314)	(\$6,748,633)	(\$4,797,294)	41%	9
<b>Total Fixed Assets</b>	<b>\$3,288,267</b>	<b>\$5,619,452</b>	<b>\$47,261</b>	<b>\$464,538</b>	<b>\$285,352</b>	<b>\$9,704,871</b>	<b>\$15,525,783</b>		
<b>Total Assets</b>	<b>\$2,571,308,964</b>	<b>\$6,708,212,918</b>	<b>\$259,366,312</b>	<b>\$2,162,772,702</b>	<b>\$575,717,014</b>	<b>\$12,277,377,910</b>	<b>\$12,420,898,901</b>		
<b>LIABILITIES</b>									
Accounts Payable	\$1,935,274	\$4,059,778	\$282,968	\$1,193,265	\$1,958,518	\$9,429,803	\$3,059,314	208%	10 Credit Invoices
Investment Accounts Payable	\$156,761,133	\$359,814,654	\$12,929,469	\$119,280,836	\$30,919,944	\$679,706,037	\$707,446,791	-4%	
<b>Total Liabilities</b>	<b>\$158,696,407</b>	<b>\$363,874,432</b>	<b>\$13,212,437</b>	<b>\$120,474,101</b>	<b>\$32,878,462</b>	<b>\$689,135,840</b>	<b>\$710,506,105</b>		
<b>Total Plan Net Assets</b>	<b>\$2,412,612,557</b>	<b>\$6,344,338,486</b>	<b>\$246,153,875</b>	<b>\$2,042,298,601</b>	<b>\$542,838,552</b>	<b>\$11,588,242,070</b>	<b>\$11,710,392,796</b>		

**NOTE - Variance Explanation**

- 1 Cash is being invested in longer term vehicles through New Managers and Capital Calls
- 2 Cash is being invested in longer term vehicles through New Managers and Capital Calls
- 3 Increase in Employer Contributions Rate for FY 2015
- 4 Variance is a result of transactions activity which is based on each individual manager
- 5 Derivatives include currency forwards/futures as permitted by KRS investment policy. As the USD experiences a downward trend, these derivatives will have an upward trend
- 6 Additional Funding has been placed in the Real Estate Asset class
- 7 In FY 2014 a review of the Fixed Asset Policy was done which resulted in an increase in the individual threshold from \$750 to \$3,000 per item. A clean up was done to remove any items that were below the threshold.
- 8 In FY 2014 a review of the Fixed Asset Policy was done which resulted in an increase in the individual threshold from \$750 to \$3,000 per item. A clean up was done to remove any items that were below the threshold.
- 9 In FY 2014 a review of the Fixed Asset Policy was done which resulted in an increase in the individual threshold from \$750 to \$3,000 per item. A clean up was done to remove any items that were below the threshold.
- 10 Credit Invoice are currently being reported as negative receivable. In previous fiscal years, we only made the correction to the General Ledger at year end. However, IT is now running this report monthly for Accounting.

**KENTUCKY RETIREMENT SYSTEMS**  
**COMBINING STATEMENTS OF CHANGES IN NET POSITION**  
**PENSION FUNDS**  
**For the Six Months Ending December 31, 2014**  
**(Unaudited)(In Whole Dollars)**

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013		
<b>ADDITIONS</b>									
Member Contributions	\$53,337,693	\$64,069,167	\$2,427,517	\$23,589,628	\$6,323,740	\$149,747,745	\$135,122,605	11%	1
Employer Contributions	\$259,716,833	\$93,283,247	\$13,132,343	\$54,294,839	\$11,761,846	\$432,189,107	\$383,738,878	13%	2
Pension Spiking Contributions	\$73,476	\$276,426	\$58,194	\$32,126	\$4,246	\$444,468			3
Bank of America Settlement	\$8,442,347	\$10,280,391	\$644,756	\$2,865,365	\$767,141	\$23,000,000			4
Health Insurance Contributions (HB1)	\$2,040,035	\$3,074,981	\$45,447	\$471,422	\$263,110	\$5,894,994	\$5,319,421	11%	5
<b>Total Contributions</b>	<b>\$323,610,383</b>	<b>\$170,984,211</b>	<b>\$16,308,258</b>	<b>\$81,253,379</b>	<b>\$19,120,082</b>	<b>\$611,276,314</b>	<b>\$524,180,904</b>		
<b>INVESTMENT INCOME</b>									
From Investing Activities									
Net Appreciation in FV of Investments	(\$47,901,146)	(\$134,256,904)	(\$5,872,457)	(\$42,254,857)	(\$12,126,355)	(\$242,411,720)	\$832,849,333	-129%	6
Interest/Dividends	\$27,932,972	\$65,975,212	\$2,679,522	\$21,087,360	\$5,711,029	\$123,386,095	\$134,437,656	-8%	
<b>Total Investing Activities Income</b>	<b>(\$19,968,174)</b>	<b>(\$68,281,692)</b>	<b>(\$3,192,936)</b>	<b>(\$21,167,497)</b>	<b>(\$6,415,326)</b>	<b>(\$119,025,625)</b>	<b>\$967,286,990</b>		
Investment Expense	\$3,675,111	\$11,999,150	\$453,219	\$3,853,748	\$1,050,112	\$21,031,340	\$21,765,217	-3%	
<b>Net Income from Investing Activities</b>	<b>(\$23,643,285)</b>	<b>(\$80,280,841)</b>	<b>(\$3,646,155)</b>	<b>(\$25,021,245)</b>	<b>(\$7,465,438)</b>	<b>(\$140,056,965)</b>	<b>\$945,521,773</b>		
From Securities Lending Activities									
Securities Lending Income	\$304,089	\$846,799	\$30,480	\$273,025	\$69,520	\$1,523,914	\$2,344,622	-35%	7
Securities Lending Expense									
Securities Lending Borrower Rebates	\$51,821	\$19,022	\$1,217	\$8,377	\$2,906	\$83,343	\$21,808	282%	8
Security Lending Agent Fee	\$29,827	\$103,737	\$3,572	\$33,147	\$8,229	\$178,511	\$360,866	-51%	9
Security Lending Commission Expense									
Net Income from Securities Lending	\$222,442	\$724,041	\$25,691	\$231,502	\$58,385	\$1,262,060	\$1,961,947		
<b>Total Investment Income</b>	<b>(\$23,420,843)</b>	<b>(\$79,556,801)</b>	<b>(\$3,620,464)</b>	<b>(\$24,789,744)</b>	<b>(\$7,407,053)</b>	<b>(\$138,794,905)</b>	<b>\$947,483,720</b>		
<b>Total Additions</b>	<b>\$300,189,540</b>	<b>\$91,427,410</b>	<b>\$12,687,794</b>	<b>\$56,463,636</b>	<b>\$11,713,029</b>	<b>\$472,481,409</b>	<b>\$1,471,664,624</b>		
<b>DEDUCTIONS</b>									
Benefit Payments	\$450,693,314	\$254,959,571	\$27,290,181	\$98,637,091	\$28,110,963	\$859,691,121	\$878,698,227	-2%	
Refunds	\$7,648,581	\$7,656,465	\$41,719	\$1,450,639	\$1,614,974	\$18,412,379	\$16,977,676	8%	
Administrative Expenses	\$7,392,523	\$12,525,570	\$169,381	\$1,073,171	\$633,479	\$21,794,125	\$18,778,271	16%	10
Capital Project Expenses	\$82,340	\$136,675	\$1,915	\$11,729	\$6,702	\$239,360			11
<b>Total Deductions</b>	<b>\$465,816,758</b>	<b>\$275,278,282</b>	<b>\$27,503,197</b>	<b>\$101,172,630</b>	<b>\$30,366,118</b>	<b>\$900,136,984</b>	<b>\$914,454,174</b>		
<b>Net Increase(Decrease) in Plan Net Assets</b>	<b>(\$165,627,218)</b>	<b>(\$183,850,872)</b>	<b>(\$14,815,402)</b>	<b>(\$44,708,994)</b>	<b>(\$18,653,089)</b>	<b>(\$427,655,575)</b>	<b>\$557,210,450</b>		
<b>PLAN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>									
Beginning of Period	\$2,578,239,775	\$6,528,189,345	\$260,969,287	\$2,087,007,595	\$561,491,642	\$12,015,897,645	\$11,153,182,356		
End of Period	\$2,412,612,557	\$6,344,338,473	\$246,153,885	\$2,042,298,601	\$542,838,553	\$11,588,242,069	\$11,710,392,806		

**NOTE - Variance Explanation**

- 1 Increase is due to addition of Employer Pay Credit and Increase in Service Purchases
- 2 Increase in Employer Contribution Rate
- 3 Effective date 1/1/15
- 4 Funds Received in FY15
- 5 This will continue to increase through the years as new employees join the system
- 6 Unfavorable market conditions
- 7 PIMCO was a large contributor to the Program and they are not longer participating in the SL program
- 8 PIMCO was a large contributor to the Program and they are not longer participating in the SL program
- 9 PIMCO was a large contributor to the Program and they are not longer participating in the SL program
- 10 Increase in overall budget creates an increase in total amount transferred each month. Decrease in Insurance Reimbursement
- 11 Filenet Upgrade to complete the START Capital Project

**KENTUCKY RETIREMENT SYSTEMS**  
**COMBINING STATEMENTS OF NET POSITION**  
**INSURANCE FUNDS**  
**As of December 31, 2014**  
**(Unaudited)(In Whole Dollars)**

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013		
<b>ASSETS</b>									
Cash and Short-Term Investments									
Cash Deposits	\$144,985	\$292,189	\$11,896	\$17,685	\$19,597	\$486,352	\$1,558,776	-69%	1
Short-term Investments	\$40,831,612	\$78,581,856	\$8,658,372	\$44,951,894	\$19,957,944	\$192,981,677	\$247,684,523	-22%	2
Medicare Drug Deposit	\$19,911	\$42,346	\$4,614	\$22,710	\$10,484	\$100,064	\$100,021	0%	
<b>Total Cash and Short-term Investments</b>	<b>\$40,996,507</b>	<b>\$78,916,391</b>	<b>\$8,674,881</b>	<b>\$44,992,290</b>	<b>\$19,988,024</b>	<b>\$193,568,094</b>	<b>\$249,343,320</b>		
<b>RECEIVABLES</b>									
Accounts Receivable	12,780,986	11,733,013	901,384	6,301,698	1,323,848	33,040,928	36,559,663	-10%	
Investment Accounts Receivable	\$41,462,195	\$125,539,552	\$9,703,524	\$70,374,655	\$30,689,149	\$277,769,075	\$199,290,321	39%	3
<b>Total Receivables</b>	<b>\$54,243,181</b>	<b>\$137,272,565</b>	<b>\$10,604,908</b>	<b>\$76,676,353</b>	<b>\$32,012,997</b>	<b>\$310,810,004</b>	<b>\$235,849,984</b>		
<b>INVESTMENTS, AT FAIR VALUE</b>									
Fixed Income	\$198,159,712	\$577,604,426	\$48,340,276	\$316,846,058	\$132,674,939	\$1,273,625,411	\$1,202,000,745	6%	
Public Equities	\$253,124,141	\$749,323,542	\$63,625,864	\$407,274,903	\$173,350,585	\$1,646,699,035	\$1,666,252,362	-1%	
Derivatives	\$201,305	\$626,202	\$55,777	\$345,001	\$144,648	\$1,372,934	\$720,417	91%	4
Private Equities	\$42,165,961	\$151,148,016	\$14,142,539	\$83,932,830	\$31,722,714	\$323,112,061	\$248,511,472	30%	5
Absolute Return	\$69,193,899	\$195,587,719	\$17,629,959	\$110,417,907	\$46,184,865	\$439,014,351	\$394,575,542	11%	6
Real Estate	\$27,856,816	\$90,280,732	\$7,962,117	\$49,589,051	\$20,857,245	\$196,545,961	\$127,168,262	55%	7
<b>Total Investments, at Fair Value</b>	<b>\$590,701,834</b>	<b>\$1,764,570,638</b>	<b>\$151,756,534</b>	<b>\$968,405,750</b>	<b>\$404,934,997</b>	<b>\$3,880,369,752</b>	<b>\$3,639,228,800</b>	7%	
<b>Total Assets</b>	<b>\$685,941,523</b>	<b>\$1,980,759,593</b>	<b>\$171,036,323</b>	<b>\$1,090,074,393</b>	<b>\$456,936,017</b>	<b>\$4,384,747,849</b>	<b>\$4,124,422,104</b>	6%	
<b>LIABILITIES</b>									
Accounts Payable	\$4,965	\$19,365				\$24,331	\$5,946,223	-100%	8
Investment Accounts Payable	\$38,588,835	\$117,063,625	\$9,052,818	\$65,574,657	\$28,591,356	\$258,871,291	\$217,143,635	19%	9
<b>Total Liabilities</b>	<b>\$38,593,800</b>	<b>\$117,082,991</b>	<b>\$9,052,818</b>	<b>\$65,574,657</b>	<b>\$28,591,356</b>	<b>\$258,895,622</b>	<b>\$223,089,859</b>	16%	
<b>Total Plan Net Assets</b>	<b>\$647,347,723</b>	<b>\$1,863,676,603</b>	<b>\$161,983,504</b>	<b>\$1,024,499,736</b>	<b>\$428,344,662</b>	<b>\$4,125,852,227</b>	<b>\$3,901,332,245</b>	6%	

**NOTE - Variance Explanation**

- 1 Cash is being invested in longer term vehicles through New Managers and Capital Calls
- 2 Cash is being invested in longer term vehicles through New Managers and Capital Calls
- 3 Variance is a result of transactions activity which is based on each individual manager
- 4 Derivatives include currency forwards/futures as permitted by KRS investment policy. As the USD experiences a downward trend, these derivatives will have an upward trend
- 5 Additional Funds placed in Private Equity as directed by the board approved asset allocation
- 6 Funding of New Absolute Return Managers
- 7 Additional Funds placed in Real Estate as directed by the board approved asset allocation
- 8 The move from self insured insurance program
- 9 Variance is a result of transactions activity which is based on each individual manager

**KENTUCKY RETIREMENT SYSTEMS**  
**COMBINING STATEMENTS OF CHANGES IN PLAN NET ASSETS**  
**INSURANCE FUNDS**  
**For the Six Months Ending December 31, 2014**  
**(Unaudited)(In Whole Dollars)**

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013		
<b>ADDITIONS</b>									
Employer Contributions	\$66,429,529	\$55,522,054	\$5,358,382	\$35,957,579	\$7,101,457	\$170,369,002	\$202,336,726	-16%	1
Insurance Premiums	\$140,474	\$247,806	\$359	\$3,125	\$6,253	\$398,016	\$2,059,318	-81%	2
Retired Reemployed Healthcare	\$1,947,109	\$2,185,099		\$371,688	\$337,170	\$4,841,066	\$3,655,054	32%	3
<b>Total Contributions</b>	<b>\$68,517,112</b>	<b>\$57,954,959</b>	<b>\$5,358,741</b>	<b>\$36,332,392</b>	<b>\$7,444,880</b>	<b>\$175,608,083</b>	<b>\$208,051,099</b>		
<b>INVESTMENT INCOME</b>									
From Investing Activities									
Net Appreciation in FV of Investments	(\$12,609,007)	(\$33,256,607)	(\$3,007,874)	(\$18,324,264)	(\$7,899,962)	(\$75,097,714)	\$279,028,414	-127%	4
Interest/Dividends	\$6,742,762	\$18,642,682	\$1,665,350	\$10,164,585	\$4,428,089	\$41,643,468	\$40,729,439	2%	
<b>Total From Investing Activities</b>	<b>(\$5,866,244)</b>	<b>(\$14,613,925)</b>	<b>(\$1,342,523)</b>	<b>(\$8,159,679)</b>	<b>(\$3,471,873)</b>	<b>(\$33,454,246)</b>	<b>\$319,757,853</b>		
Investment Expense	\$1,103,292	\$3,694,711	\$324,079	\$2,033,179	\$820,412	\$7,975,674	\$7,169,560	11%	5
<b>Net Income from Investing Activities</b>	<b>(\$6,969,537)</b>	<b>(\$18,308,637)</b>	<b>(\$1,666,603)</b>	<b>(\$10,192,858)</b>	<b>(\$4,292,286)</b>	<b>(\$41,429,920)</b>	<b>\$312,588,294</b>		
From Securities Lending									
Securities Lending Income	\$74,091	\$222,796	\$18,864	\$123,662	\$50,861	\$490,274	\$776,366	-37%	6
Securities Lending Expense									
Security Lending Borrower Rebates	(\$27,486)	(\$81,628)	(\$7,141)	(\$44,029)	(\$18,733)	(\$179,017)	(\$159,559)	12%	7
Security Lending Agent Fees	\$8,459	\$25,677	\$2,147	\$14,169	\$5,817	\$56,269	\$113,161	-50%	8
Net Income from Securities Lending	\$93,118	\$278,746	\$23,858	\$153,522	\$63,777	\$613,022	\$822,764	-25%	
<b>Total Net Income from Investments</b>	<b>(\$6,876,419)</b>	<b>(\$18,029,890)</b>	<b>(\$1,642,744)</b>	<b>(\$10,039,336)</b>	<b>(\$4,228,508)</b>	<b>(\$40,816,898)</b>	<b>\$313,411,058</b>		
<b>Total Additions</b>	<b>\$61,640,693</b>	<b>\$39,925,068</b>	<b>\$3,715,997</b>	<b>\$26,293,055</b>	<b>\$3,216,372</b>	<b>\$134,791,186</b>	<b>\$521,462,156</b>		
<b>DEDUCTIONS</b>									
Healthcare Premiums Subsidies	\$59,997,040	\$52,840,918	\$6,678,671	\$31,993,817	\$8,310,802	\$159,821,248	\$143,386,300	11%	9
Administrative Expense							\$910,688	-100%	10
Self Funded Healthcare Costs	\$1,196,942	\$2,113,109	\$10,804	\$103,084	\$85,361	\$3,509,300	(\$2,318,613)	-251%	11
Excise Tax Insurance	\$3,182	\$5,620	\$48	\$208	\$136	\$9,194	\$40,340	-77%	12
<b>Total Deductions</b>	<b>\$61,197,164</b>	<b>\$54,959,647</b>	<b>\$6,689,523</b>	<b>\$32,097,108</b>	<b>\$8,396,299</b>	<b>\$163,339,742</b>	<b>\$142,018,714</b>		
<b>Net Increase(Decrease) in Plan Net Assets</b>	<b>\$443,529</b>	<b>(\$15,034,579)</b>	<b>(\$2,973,526)</b>	<b>(\$5,804,053)</b>	<b>(\$5,179,928)</b>	<b>(\$28,548,556)</b>	<b>\$379,443,442</b>		
<b>NET PLAN ASSETS HELD IN TRUST FOR INSURANCE BENEFITS</b>	<b>\$646,904,183</b>	<b>\$1,878,711,180</b>	<b>\$164,957,032</b>	<b>\$1,030,303,789</b>	<b>\$433,524,589</b>	<b>\$4,154,400,773</b>	<b>\$3,521,888,793</b>		
	<b>\$647,347,713</b>	<b>\$1,863,676,602</b>	<b>\$161,983,505</b>	<b>\$1,024,499,736</b>	<b>\$428,344,662</b>	<b>\$4,125,852,217</b>	<b>\$3,901,332,235</b>		

**NOTE - Variance Explanation**

- 1 Reduction in Employer Contribution Rates for the Insurance Fund, overall reduction of 19.29%.
- 2 Move from Self Funding Insurance Program to Premiums Based Program
- 3 Increase in both total invoices created and premiums due
- 4 Unfavorable Market Conditions
- 5 Addition of managers added to the portfolio
- 6 PIMCO was a large contributor to the Program and they are not longer participating in the SL program
- 7 PIMCO was a large contributor to the Program and they are not longer participating in the SL program
- 8 PIMCO was a large contributor to the Program and they are not longer participating in the SL program
- 9 Increase in Premiums paid to Humana
- 10 Move from Self Funding Insurance Program to Premiums Based Program
- 11 A large refund was received last year that offset expenditures
- 12 This charge is based on the number of insurance policies administered by KRS.

	2015					
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
EECON	5.00%	8.00%	5.00%	8.00%	8.00%	34.00%
HIC	1.00%	1.00%	1.00%	1.00%	1.00%	5.00%
ERCON	30.84%	16.37%	12.75%	20.73%	53.90%	134.59%
ERINS	7.93%	9.97%	4.92%	13.58%	21.86%	58.26%

	2014					
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
EECON	5.00%	8.00%	5.00%	8.00%	8.00%	34.00%
HIC	1.00%	1.00%	1.00%	1.00%	1.00%	5.00%
ERCON	17.29%	14.89%	13.74%	21.77%	39.50%	107.19%
ERINS	9.50%	17.32%	5.15%	13.93%	31.65%	77.55%

	2014					
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
EECON	5.00%	8.00%	5.00%	8.00%	8.00%	34.00%
HIC	1.00%	1.00%	1.00%	1.00%	1.00%	5.00%
ERCON	17.29%	14.89%	13.74%	21.77%	39.50%	107.19%
ERINS	9.50%	17.32%	5.15%	13.93%	31.65%	77.55%

	2013					
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
EECON	5.00%	8.00%	5.00%	8.00%	8.00%	34.00%
HIC	1.00%	1.00%	1.00%	1.00%	1.00%	5.00%
ERCON	14.86%	13.41%	12.62%	20.00%	33.24%	94.13%
ERINS	8.75%	16.38%	6.93%	17.50%	30.43%	79.99%

	Difference					
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
EECON	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HIC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ERCON	13.55%	1.48%	-0.99%	-1.04%	14.40%	27.40%
ERINS	-1.57%	-7.35%	-0.23%	-0.35%	-9.79%	-19.29%

	Difference					
	KERS	KHAZ	CERS	CHAZ	SPRS	Total
EECON	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HIC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ERCON	2.43%	1.48%	1.12%	1.77%	6.26%	13.06%
ERINS	0.75%	0.94%	-1.78%	-3.57%	1.22%	-2.44%



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## KENTUCKY RETIREMENT SYSTEMS INVESTMENTS

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**TO:** Kentucky Retirement System Board of Trustees

**FROM:** David Peden, Chief Investment Officer

**DATE:** February 24, 2015

**SUBJECT:** Investment Committee Quarterly Report

The Investment Committee held its regularly scheduled meeting on February 3, 2015. The purpose of the meeting was to evaluate investment activities, program structure, management, controls, and performance results of the Pension and Insurance Funds, for the quarter ending December 31, 2014, along with various other subjects.

The meeting began with approval of the minutes for the previous Investment Committee meeting held on November 5, 2014.

Erica Bradley presented the Quarterly Compliance Report. The Management Update was given by David Peden, CIO, which included a review of some of the standard quarterly reports. These reports included the: Monthly Performance Update, Investment Division Budget Report, the quarterly Manager Meeting and Related Expense Tracking Report, the Internally Managed Portfolio Asset Report, Internally Managed Portfolio Transactions Report, Securities Lending Report, Domestic Equity Commissions Report, Global Equity Commissions Report, and the Securities Litigation Report were provided for informational purposes.

The Standing Quarterly Committee Topics, Potential Future Topics List, and an overview of the supplied articles of interest were reviewed. New investment staff members were introduced and an update on the progress to fill vacant positions was given. Questions were encouraged and addressed throughout the reports.

Consultant RV Kuhns gave a brief update on what has occurred with other State clients of theirs that have gone through an investment performance audits. RV Kuhns also gave an update on the asset/liability study and the potential timeline for presenting results.

Staff discussed a potential fee benchmarking study and the output and use of such a study. At the time of the meeting a RFP was still being developed to procure such a service. This was for informational purposes only and no action was taken.

KRS Investment Staff and consultant RV Kuhns recommended hiring State Street Advisors for transition and temporary investment mandates when appropriate. These services are typically used when one investment manager is terminated prior to a permanent investment manager being identified to replace the terminated manager. The investment committee approved State Street Advisors for use in these situations.

KRS Investment Staff and consultant RV Kuhns recommended managing U.S. mid cap equity internally at KRS via fully replicating the S&P 400 index. This recommendation was approved by the investment committee.

Joe Gilbert, Director of Public Equity and consultant RV Kuhns recommended terminating its relationship with Pyramis Global Advisors who managed a non U.S. equity portfolio for KRS. The recommendation was due to excessive staff turnover at Pyramis. The recommendation was approved and the assets that Pyramis managed will be reallocated to existing KRS non-U.S. equity managers.

David Peden, Chief Investment Officer and consultant RV Kuhns recommended terminating its relationship with PIMCO who managed a Global Fixed Income portfolio for KRS. The recommendation was due to excessive staff turnover at PIMCO. The recommendation was approved and the assets that PIMCO managed will be reallocated to NISA Investment Advisors and Manulife Asset Management, both existing KRS fixed income managers. A search for a multi-sector fixed income manager will be conducted to add to the KRS fixed income roster and PIMCO will be allowed to compete for that mandate.

Consultant ORG presented policies and procedures for a real estate co-investment program. KRS staff and consultant ORG recommended a real estate co-investment program and it was approved by the KRS investment committee.

David Peden, CIO, presented an update on the Absolute Return program and discussed the idea of graduating hedge fund managers from the fund of funds to the KRS direct hedge fund program. This was for information purposes and no action was taken.

Erica Bradley, Compliance Officer, Brian Thomas, General Counsel, and David Peden, CIO, presented recommended changes to the Personal Trading Policy. Those changes were approved by the KRS investment committee with one modification to the recommended changes.

***Please see the next page for a summary of the Pension and Insurance performance information ending December 31, 2014.***

<b>Pension Funds Performance Overview</b>								
<b>Rates of Return (%) as of December 31, 2014</b>								
	<b>One Year</b>		<b>Three Years</b>		<b>Five Years</b>		<b>Ten Years</b>	
	<b>Fund</b>	<b>Index</b>	<b>Fund</b>	<b>Index</b>	<b>Fund</b>	<b>Index</b>	<b>Fund</b>	<b>Index</b>
<b>Equity</b>	3.10	3.79	14.23	14.18	9.53	9.86	5.96	5.76
<b>Fixed Income</b>	5.42	5.56	5.02	3.20	5.92	4.82	5.07	4.84
<b>Private Equity</b>	16.20	16.20	15.03	15.03	14.56	16.93	8.92	9.80
<b>Real Estate</b>	8.85	11.36	9.40	11.26	11.24	11.34	6.19	6.15
<b>Absolute Return</b>	4.84	4.72	7.95	5.46	N/A		N/A	
<b>Real Return</b>	3.20	2.93	2.62	3.34	N/A		N/A	
<b>Cash Equivalents</b>	0.17	0.03	0.37	0.05	0.46	0.07	2.04	1.46
<b>Total Fund</b>	5.14	6.02	10.11	10.91	8.41	8.67	5.83	6.03

<b>Insurance Funds Performance Overview</b>								
<b>Rates of Return (%) as of December 31, 2014</b>								
	<b>One Year</b>		<b>Three Years</b>		<b>Five Years</b>		<b>Ten Years</b>	
	<b>Fund</b>	<b>Index</b>	<b>Fund</b>	<b>Index</b>	<b>Fund</b>	<b>Index</b>	<b>Fund</b>	<b>Index</b>
<b>Equity</b>	3.35	3.85	14.17	14.04	9.20	9.55	5.76	5.50
<b>Fixed Income</b>	3.79	5.56	4.31	3.20	5.39	5.15	5.10	4.89
<b>Private Equity</b>	17.51	17.51	15.40	15.40	15.12	17.02	8.57	9.20
<b>Real Estate</b>	7.46	11.36	8.84	11.26	11.88	11.34	N/A	
<b>Absolute Return</b>	4.80	4.72	7.94	5.46	N/A		N/A	
<b>Real Return</b>	3.78	3.11	2.46	3.39	N/A		N/A	
<b>Cash Equivalents</b>	0.19	0.03	0.31	0.05	0.29	0.07	1.86	1.46
<b>Total Fund</b>	4.46	6.21	9.52	10.81	7.84	8.95	5.24	5.63

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**RECOMMENDATION:** The Board is requested to ratify the actions of the Investment Committee.



## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board of Trustees

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** KRS Administrative Budget-to-Actual Expenditure Update

Accompanying this memorandum, you will find the spreadsheets showing KRS Administrative budget-to-actual expenditures for the Fiscal Year 2014-15. Key informational items for this period include:

### Fiscal year 2014-15

- Total 2014-15 Annual Budget = \$40.9 million
- Expenditures through December 31, 2014 totaled \$15.5 million (\$38% of total budget) resulting in a favorable variance to Plan.
- Although we anticipate being favorable to Budget for the Fiscal Year, expenses will trend higher in the remaining six month period related to overtime (reducing service purchase and post retirement audit backlogs), actuarial fees (GASB 68 and Legislative analysis), investment costs (Asset Liability study, full staffing, travel), audit expenses (GASB 68 and other studies), and technology refresh expenses.
- Additional information includes two ancillary reports showing the split out of Internal Audit and Investments.

### Comparisons to Fiscal year 2013-14 through the Same Period

- Total Expenses are lower by 5.7%
- Base Salaries are higher by 0.21%. This includes 3 months of the merit increases, offset by higher turnover.
- Overtime expense higher by 5.8% (Pension Spiking, Benefit audits, Employer Reporting).
- Benefits cost up 20.4% (Medical & Pension).
- Ice Miller legal expenses are lower by \$323 thousand due to Seven Counties current status.
- In-state travel down 34.6% due to technology usage (video, webinars, & Go to Meeting).
- Telephone expenses lower by 15.3% reflecting lower wait times with Call Back Assist).
- Lower Technology expenses in first half of 2014-15.

**RECOMMENDATION:** None. This item is presented for information purposes only.

**KRS ADMINISTRATIVE BUDGET 2014-2015**  
**SECOND QUARTER BUDGET-TO-ACTUAL ANALYSIS**

As of December 31, 2014

Acc't #	Account Name	Budgeted	Actual Expenditures	Remaining	% Remaining
	<b>PERSONNEL</b>				
111	Salaries	\$14,426,125	\$7,723,003	\$6,703,122	46.5%
120	Benefits	\$8,842,352	\$4,639,779	\$4,202,573	47.5%
131	Workers Compensation	\$34,000	\$32,365	\$1,635	4.8%
132	Unemployment	\$10,000	\$0	\$10,000	100.0%
133	Tuition Assistance	\$35,000	\$17,902	\$17,098	48.9%
133I	Investment Tuition Assistance	\$5,000	\$0	\$5,000	100.0%
133T	Audit Tuition Assistance	\$2,500	\$0	\$2,500	100.0%
135	Bonds	\$3,000	\$102	\$2,898	96.6%
141	<b>LEGAL &amp; AUDITING SERVICES</b>				
141A	Legal Hearing Officers	\$344,000	\$119,495	\$224,505	65.3%
141B	Legal (Stoll, Keenon)	\$225,000	\$58,725	\$166,275	73.9%
141C	Polsinelli Shugart	\$100,000	\$18,196	\$81,804	81.8%
141E	Reinhart	\$350,000	\$87,789	\$262,211	74.9%
141F	Ice Miller	\$1,200,000	\$79,161	\$1,120,839	93.4%
142	Auditing	\$70,000	\$47,500	\$22,500	32.1%
146	<b>CONSULTING SERVICES</b>				
146A	Medical Reviewers	\$380,000	\$157,196	\$222,804	58.6%
146B	Medical Reports	\$10,000	\$16	\$9,984	99.8%
146C	Medical Exams	\$20,000	\$10,855	\$9,145	45.7%
150	<b>CONTRACTUAL SERVICES</b>				
150C	Miscellaneous Contracts	\$205,000	\$154,768	\$50,232	24.5%
150D	Health Consultant	\$125,000	\$19,438	\$105,563	84.5%
150E	Banking	\$9,000	\$0	\$9,000	100.0%
150F	PBI	\$9,000	\$0	\$9,000	100.0%
150G	Human Resources Consulting	\$100,000	\$0	\$100,000	100.0%
150H	Health Insurance Admin Fee	\$1,867,700	\$1,032,709	\$834,991	44.7%
150I	Investment Consulting	\$1,600,000	\$0	\$1,600,000	100.0%
150J	Medical Claims TPA	\$2,841,997	\$0	\$2,841,997	100.0%
150K	Pharmacy Claims TPA	\$2,773,369	\$0	\$2,773,369	100.0%
159	Actuarial Services	\$500,000	\$125,858	\$374,142	74.8%
162	Facility Security Charges	\$3,000	\$689	\$2,311	77.0%
	<b>PERSONNEL SUBTOTAL</b>	<b>\$36,091,043</b>	<b>\$14,325,544</b>	<b>\$21,765,499</b>	<b>60.31%</b>

**KRS ADMINISTRATIVE BUDGET 2014-2015  
SECOND QUARTER BUDGET-TO-ACTUAL ANALYSIS**

Acc't #	Account Name	Budgeted	Actual Expenditures	Remaining	% Remaining
	<b>OPERATIONAL</b>				
211	Natural Gas	\$25,000	\$4,917	\$20,083	80.3%
212	Electric	\$187,800	\$82,004	\$105,796	56.3%
221	Rent-NonState Building	\$33,500	\$16,344	\$17,156	51.2%
222	Rent -State Owned Building	\$686,300	\$343,192	\$343,108	50.0%
223	Equipment Rental	\$5,000	\$1,794	\$3,206	64.1%
224	Copier Rental	\$86,000	\$30,283	\$55,717	64.8%
226	Rental Carpool	\$0	\$0	\$0	
232	Vehicle/Equip. Mainten.	\$29,000	\$0	\$29,000	100.0%
241	Postage	\$525,000	\$118,338	\$406,662	77.5%
242	Freight	\$1,200	\$427	\$773	64.4%
251	Printing (State)	\$1,000	\$0	\$1,000	100.0%
252	Printing (non-state)	\$300,000	\$20,461	\$279,539	93.2%
254	Insurance	\$81,300	\$2,352	\$78,948	97.1%
256	Garbage Collection	\$12,300	\$5,243	\$7,057	57.4%
259	Conference Expense	\$40,000	\$3,351	\$36,649	91.6%
259I	Conference Exp. Investment	\$12,600	\$2,517	\$10,083	80.0%
259T	Conference Exp. Audit	\$1,500	\$888	\$612	40.8%
300	MARS Usage	\$25,000	\$13,550	\$11,450	45.8%
321	Office Supplies	\$96,300	\$26,697	\$69,603	72.3%
331	Data Processing Supplies	\$45,000	\$5,378	\$39,622	88.0%
343	Motor Fuels & Lubricants	\$2,707	\$1,343	\$1,364	50.4%
346	Furniture & Office Equipment	\$50,000	\$2,788	\$47,212	94.4%
361	Travel (In-State)	\$109,000	\$45,965	\$63,035	57.8%
361I	Travel (In-State) Investment	\$1,500	\$0	\$1,500	100.0%
361T	Travel (In-State) Audit	\$500	\$109	\$391	78.2%
362	Travel (Out of State)	\$40,000	\$2,787	\$37,213	93.0%
362I	Travel (Out of State) Invest	\$51,050	\$10,787	\$40,263	78.9%
362T	Travel (Out of State) Audit	\$2,500	\$590	\$1,910	76.4%
381	Dues & Subscriptions	\$37,000	\$21,978	\$15,022	40.6%
381I	Dues & Subscriptions Invest	\$42,000	\$5,916	\$36,084	85.9%
381T	Dues & Subscriptions Audit	\$1,000	\$195	\$805	80.5%
399	Miscellaneous	\$2,500	\$10,396	(\$7,896)	-315.8%
399I	Miscellaneous Investment	\$16,700	\$1,905	\$14,795	88.6%
399T	Miscellaneous Audit	\$500	\$288	\$212	42.3%
601	Capital Outlay	\$300,000	\$0	\$300,000	100.0%
802	COT Charges	\$90,000	\$42,235	\$47,765	53.1%
814	Telephone - Wireless	\$8,000	\$2,070	\$5,930	74.1%
815	Telephone - Other	\$150,000	\$44,524	\$105,476	70.3%
847	Computer Equip./Software	\$1,550,000	\$341,934	\$1,208,066	77.9%
847I	Comp. Equip./Software Invest	\$190,000	\$5,309	\$184,691	97.2%
847T	Comp. Equip/Software Audit	\$1,000	\$0	\$1,000	100.0%
	<b>OPERATIONAL SUBTOTAL</b>	<b>\$4,839,757</b>	<b>\$1,218,854</b>	<b>\$3,620,903</b>	<b>74.8%</b>
	<b>TOTALS</b>	<b>\$40,930,800</b>	<b>\$15,544,398</b>	<b>\$25,386,402</b>	<b>62.0%</b>

**KRS ADMINISTRATIVE BUDGET 2014-15**

**INTERNAL AUDIT - SECOND QUARTER BUDGET-TO-ACTUAL ANALYSIS**

As of December 31, 2014

Acc't #	Account Name	Budgeted	Actual Expense	Remaining	% Remaining
	<b>PERSONNEL</b>				
133T	Audit Tuition Assistance	\$2,500	\$0	\$2,500	100%
	<b>PERSONNEL SUBTOTAL</b>	<b>\$2,500</b>	<b>\$0</b>	<b>\$2,500</b>	<b>100%</b>
	<b>OPERATIONAL</b>				
259T	Conference Exp. Audit	\$1,500	\$888	\$612	41%
361T	Travel (In-State) Audit	\$500	\$109	\$391	78%
362T	Travel (Out of State) Audit	\$2,500	\$590	\$1,910	76%
381T	Dues & Subscriptions Audit	\$1,000	\$195	\$805	81%
399T	Miscellaneous Audit	\$500	\$288	\$212	42%
847T	Comp. Equip./Software Audit	\$1,000	\$0	\$1,000	100%
	<b>OPERATIONAL SUBTOTAL</b>	<b>\$7,000</b>	<b>\$2,070</b>	<b>\$4,930</b>	<b>70%</b>
	<b>TOTALS</b>	<b>\$9,500</b>	<b>\$2,070</b>	<b>\$7,430</b>	<b>78%</b>

**INVESTMENT AUDIT - SECOND QUARTER BUDGET-TO-ACTUAL ANALYSIS**

As of December 31, 2014

Acc't #	Account Name	Budgeted	Actual Expense	Remaining	% Remaining
	<b>PERSONNEL</b>				
133I	Investment Tuition Assistance	\$5,000	\$0	\$5,000	100%
	<b>CONTRACTUAL SERVICES</b>				
141E	Reinhart	\$350,000	\$87,789		
150I	Investment Consulting	\$1,600,000	\$0	\$1,600,000	100%
	<b>PERSONNEL SUBTOTAL</b>	<b>\$1,955,000</b>	<b>\$87,789</b>	<b>\$1,605,000</b>	<b>82%</b>
	<b>OPERATIONAL</b>				
259I	Conference Exp. Investment	\$12,600	\$2,517	\$10,083	80%
361I	Travel (In-State) Investment	\$1,500	\$0	\$1,500	100%
362I	Travel (Out of State) Invest	\$65,500	\$10,787	\$54,713	84%
381I	Dues & Subscriptions Invest	\$42,000	\$5,916	\$36,084	86%
399I	Miscellaneous Investment	\$16,700	\$1,905	\$14,795	89%
847I	Comp. Equip./Software Invest	\$190,000	\$5,309	\$184,691	97%
	<b>OPERATIONAL SUBTOTAL</b>	<b>\$328,300</b>	<b>\$26,434</b>	<b>\$301,866</b>	<b>92%</b>
	<b>TOTALS</b>	<b>\$2,283,300</b>	<b>\$114,223</b>	<b>\$1,906,866</b>	<b>84%</b>

## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** Initial Retirement Cases, Second Quarter, 14-15

The tables below show the distribution of new retirees who retired during this quarter of the fiscal year by retirement mode and the retirees with 27 or more years of service.

### DISTRIBUTION BY RETIREMENT MODE

<u>MODE</u>	<u>KERS</u>	<u>CERS</u>	<u>SPRS</u>	<u>TOTAL</u>	<u>PERCENT</u>
Normal Retirement	126	225	2	353	27.4%
Early Retirement	285	473	7	765	59.4%
Disability Retirement	22	49	1	72	5.6%
Retirement Eligible Refund	20	29	0	49	3.8%
Death of Members Eligible to Retire	20	29	0	49	3.8%
Grand Totals	473	805	10	1288	100%

### RETIREES WITH 27 OR MORE YEARS OF SERVICE

	<u>KERS</u>	<u>CERS</u>	<u>SPRS</u>	<u>TOTAL</u>
Under Normal Retirement Age	87	109	4	200
At and Over Normal Retirement Age	14	10	0	24
Grand Totals	101	119	4	224

**RECOMMENDATION:** This report is provided for informational purposes only.

**KENTUCKY RETIREMENT SYSTEMS**

**TO:** Members of the Board  
**FROM:** William A. Thielen  
Executive Director  
**DATE:** February 24, 2015  
**SUBJECT:** Death Benefit Payments, Second Quarter, 14-15

The table below reflects the number of deceased retired members whose death benefit was paid during this quarter of the fiscal year and the total amount paid by each system.

DEATH BENEFIT PAYMENTS

	<u>Number of Deceased Retirees</u>	<u>Total Amount Paid</u>
KERS	193	\$965,000.00
CERS	205	\$1,025,000.00
SPRS	3	\$15,000.00
TOTALS	<hr/> 401	<hr/> \$2,005,000.00

**RECOMMENDATION:** This report is provided for informational purposes only.

## Kentucky Retirement Systems

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** Refund of Member Contributions for Quarter Ended December 31, 2014

The summary by system, age, and service credit of each person who received a refund during the second quarter of this fiscal year is attached.

There were 1,338 refunds totaling \$7,953,236 paid to former members of the systems during the second quarter. Refund payments during the past (11) eleven quarters were as follows:

<b>Quarter Ended</b>	<b>Amount</b>	<b>Number of Refunds</b>
<b>12/31/2014</b>	\$7,953,236	1,338
<b>09/30/2014</b>	\$11,208,677	2,465
<b>06/30/2014</b>	\$8,829,317	2,167
<b>03/31/2014</b>	\$8,595,267	1,605
<b>12/31/2013</b>	\$8,063,089	1,696
<b>09/30/2013</b>	\$9,525,226	1,791
<b>06/30/2013</b>	\$7,892,029	1,986
<b>03/31/2013</b>	\$8,854,181	1,592
<b>12/31/2012</b>	\$7,712,097	1,241
<b>09/30/2012</b>	\$7,781,898	1,493
<b>06/30/2012</b>	\$8,203,562	1,596

**RECOMMENDATION:** This report is provided for informational purposes only.

**Kentucky Retirement Systems**  
**Refund Distribution by Age and Service**

Start Date: 10/1/2014 End Date: 12/31/2014

Age	Years of Services					CERSHZ
	0 < 5	5 < 10	10 < 15	15 < 20	20 - Up	Totals
<b>0 - 19</b>	0	0	0	0	0	0 0.00% 0 0.00%
<b>20 - 29</b>	6	3	3	1	2	15 34.88% 158100.67 21.85%
<b>30 - 39</b>	3	3	5	5	2	18 41.86% 302258.59 41.77%
<b>40 - 49</b>	1	1	0	0	5	7 16.28% 247724.18 34.23%
<b>50 - 59</b>	1	0	0	0	0	1 2.33% 466.73 0.06%
<b>60 - Up</b>	2	0	0	0	0	2 4.65% 15159.82 2.09%
<b>CERSHZ</b>						
<b>Totals</b>	13	7	8	6	9	43
	30.23%	16.28%	18.60%	13.95%	20.93%	100.00%
	43524.91	53548.82	143840.65	124649.84	358145.77	723709.99
	6.01%	7.40%	19.88%	17.22%	49.49%	100.00%



**Kentucky Retirement Systems**  
**Refund Distribution by Age and Service**

Start Date: 10/1/2014 End Date: 12/31/2014

Age	Years of Services					CERSNHZ
	0 < 5	5 < 10	10 < 15	15 < 20	20 - Up	Totals
<b>0 - 19</b>	2	0	0	0	0	2 0.30% 686.67 0.02%
<b>20 - 29</b>	52	12	5	4	0	73 10.85% 181513.76 5.73%
<b>30 - 39</b>	80	47	26	17	13	183 27.19% 861820.71 27.21%
<b>40 - 49</b>	70	38	40	26	23	197 29.27% 1076314.63 33.98%
<b>50 - 59</b>	50	46	18	12	15	141 20.95% 828667.04 26.16%
<b>60 - Up</b>	52	21	4	0	0	77 11.44% 218332.15 6.89%
<b>CERSNHZ</b>						
<b>Totals</b>	306	164	93	59	51	673
	45.47%	24.37%	13.82%	8.77%	7.58%	100.00%
	368451.28	787430.52	636219.73	544298.36	830935.07	3167334.96
	11.63%	24.86%	20.09%	17.18%	26.23%	100.00%

**Kentucky Retirement Systems**  
**Refund Distribution by Age and Service**

Start Date: 10/1/2014 End Date: 12/31/2014

Age	Years of Services					KERSHZ Totals
	0 < 5	5 < 10	10 < 15	15 < 20	20 - Up	
<b>0 - 19</b>	0	0	0	0	0	0 0.00% 0 0.00%
<b>20 - 29</b>	23	8	1	2	1	35 37.63% 156542.13 27.11%
<b>30 - 39</b>	17	3	0	4	2	26 27.96% 171006.89 29.61%
<b>40 - 49</b>	9	2	4	3	2	20 21.51% 166376.72 28.81%
<b>50 - 59</b>	2	4	4	0	1	11 11.83% 76368.82 13.22%
<b>60 - Up</b>	0	1	0	0	0	1 1.08% 7215.36 1.25%
<b>KERSHZ Totals</b>	51 54.84% 102074.75 17.67%	18 19.35% 101655.61 17.60%	9 9.68% 102574.6 17.76%	9 9.68% 137516.17 23.81%	6 6.45% 133688.79 23.15%	93 100.00% 577509.92 100.00%

**Kentucky Retirement Systems**  
**Refund Distribution by Age and Service**

Start Date: 10/1/2014 End Date: 12/31/2014

Age	Years of Services					KERSNHZ Totals
	0 < 5	5 < 10	10 < 15	15 < 20	20 - Up	
<b>0 - 19</b>	0	0	0	0	0	0 0.00% 0 0.00%
<b>20 - 29</b>	60	26	8	4	0	98 18.67% 316761.05 9.23%
<b>30 - 39</b>	57	43	29	11	10	150 28.57% 904652.63 26.35%
<b>40 - 49</b>	60	26	18	17	35	156 29.71% 1459111.79 42.50%
<b>50 - 59</b>	33	28	9	8	6	84 16.00% 586311.38 17.08%
<b>60 - Up</b>	17	16	2	1	1	37 7.05% 165980.94 4.84%
<b>KERSNHZ Totals</b>	227 43.24% 314708.7 9.17%	139 26.48% 769862.7 22.43%	66 12.57% 600718.52 17.50%	41 7.81% 552299.04 16.09%	52 9.90% 1195228.83 34.82%	525 100.00% 3432817.79 100.00%

**Kentucky Retirement Systems**  
**Refund Distribution by Age and Service**

Start Date: 10/1/2014 End Date: 12/31/2014

Age	Years of Services					SPRSZH
	0 < 5	5 < 10	10 < 15	15 < 20	20 - Up	Totals
<b>0 - 19</b>	0	0	0	0	0	0 0.00% 0 0.00%
<b>20 - 29</b>	0	1	0	0	0	1 25.00% 10212.06 19.69%
<b>30 - 39</b>	1	0	0	0	0	1 25.00% 258.22 0.50%
<b>40 - 49</b>	0	0	0	0	1	1 25.00% 41156.64 79.36%
<b>50 - 59</b>	0	0	1	0	0	1 25.00% 236.25 0.46%
<b>60 - Up</b>	0	0	0	0	0	0 0.00% 0 0.00%
<b>SPRSZH</b>						
<b>Totals</b>	1 25.00% 258.22 0.50%	1 25.00% 10212.06 19.69%	1 25.00% 236.25 0.46%	0 0.00% 0 0.00%	1 25.00% 41156.64 79.36%	4 100.00% 51863.17 100.00%

## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board  
**FROM:** William A. Thielen  
Executive Director  
**DATE:** February 24, 2015  
**SUBJECT:** Report of Decisions by the Medical Examiners

### DISABILITY

During the second quarter of the fiscal year, the Medical Examiners reviewed a total of 123 applicants for disability retirement. There were 68 (55.28%) recommended for denial and 55 (44.72%) recommended for approval.

#### Approvals

<u>KERS</u>	<u>CERS</u>	<u>SPRS</u>	<u>TOTAL</u>
15	40	0	55

#### Duty Related Approvals

<u>KERS</u>	<u>CERS</u>	<u>SPRS</u>	<u>TOTAL</u>
0	0	0	0

#### Denials

<u>KERS</u>	<u>CERS</u>	<u>SPRS</u>	<u>TOTAL</u>
16	52	0	68

**HAZARDOUS DISABILITY**

During the second quarter of the fiscal year, the Medical Examiners reviewed a total of 2 applicants for hazardous disability retirement. There was 1 (50.00%) recommended for denial and 1 (50.00%) recommended for approval.

**Approvals**

<b><u>KERS</u></b>	<b><u>CERS</u></b>	<b><u>SPRS</u></b>	<b><u>TOTAL</u></b>
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**In the Line of Duty Approvals**

<b><u>KERS</u></b>	<b><u>CERS</u></b>	<b><u>SPRS</u></b>	<b><u>TOTAL</u></b>
<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>

**Total and Permanent Approvals**

<b><u>KERS</u></b>	<b><u>CERS</u></b>	<b><u>SPRS</u></b>	<b><u>TOTAL</u></b>
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**ANNUAL REVIEW OF DISABILITY RECIPIENTS**

During the second quarter of the fiscal year, the Medical Examiners made final decisions on a total of 168 annual reviews of disability recipients. The disability benefits of 162 recipients (96.43%) were continued and the disability benefits of 6 recipients (3.57%) were terminated.

**RECOMMENDATION:** This is for informational purposes only. No action is required by the board.

## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** Disability Appeals Committee Quarterly Report

The Disability Appeals Committee held meetings on October 31, November 25 and December 18, 2014. A total of 37 disability claims were acted upon during the quarter resulting in 21 denials, 8 approvals, 4 dismissals and 4 remands.

### Denials

KERS 4	CERS 17	SPRS 0
-----------	------------	-----------

### Approvals

KERS 1	CERS 7	SPRS 0
-----------	-----------	-----------

### Dismissals

KERS 1	CERS 3	SPRS 0
-----------	-----------	-----------

### Remands

KERS 0	CERS 4	SPRS 0
-----------	-----------	-----------

**RECOMMENDATION:** This is for informational purposes only. No action is required by the Board.

## KENTUCKY RETIREMENT SYSTEMS

**TO:** Members of the Board

**FROM:** William A. Thielen  
Executive Director

**DATE:** February 24, 2015

**SUBJECT:** Administrative Appeals Committee Quarterly Report

The Administrative Appeals Committee held meetings on October 31, November 25 and December 18, 2014. A total of 10 cases were acted upon in the quarter resulting in 1 approval, 3 continuances, 4 denials and 2 discontinuances.

### Denials

KERS	CERS	SPRS
2	2	0

### Continuances

KERS	CERS	SPRS
1	2	0

### Discontinuances

KERS	CERS	SPRS
0	2	0

### Reinstatements

KERS	CERS	SPRS
0	0	0

### Approvals

KERS	CERS	SPRS
0	1	0

### Dismissals

KERS	CERS	SPRS
0	0	0

**RECOMMENDATION:** This is for informational purposes only. No action is required by the Board.





# Cavanaugh Macdonald

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February 18, 2015

Mr. William A. Thielen  
Executive Director  
Kentucky Retirement Systems  
Perimeter Park West  
1260 Louisville Road  
Frankfort, KY 40601

**Subject: Thirty-Year Projection for KERS Non-Hazardous Pension Fund**

Dear Bill:

As requested, we have modified the results of the twenty-year projection of the KERS Non-Hazardous Pension Fund which assumed an additional contribution of \$5.0 billion is made to the Fund in Fiscal Year 2017. The source of the additional contribution is a proposed Pension Obligation Bond (POB) issued by the State. For the purposes discussed in this letter, the POB will mature in 30 years. The State will pay an annual debt service of \$334,447,000.

The attached tables show the results over a thirty-year period.

**Disclaimers, Caveats, and Limitations**

The results shown in the numerical charts enclosed were performed using the recommended actuarial assumptions from the 5-year Experience Investigation ending June 30, 2013, applied to the June 30, 2014 valuation. Significant items are noted below:

- The investment return in all future years is assumed to be 7.50% on a market value basis, unless otherwise indicated.
- All demographic assumptions regarding mortality, disability, retirement, salary increases, and termination of employment are assumed to hold true in the future.
- Changes in the plan design and resulting benefit amounts as a result of SB2 may have an effect on future termination and retirement patterns. Whether, and how, retirement and termination of employment patterns will ultimately be impacted cannot be known at this time. Therefore, no change in those assumptions was reflected in our modeling results.



Mr. William A. Thielen  
February 18, 2015  
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- The number of active members covered by KRS in the future is assumed to remain level (neither growth nor decline in the active membership count). As active members leave covered employment, they are assumed to be replaced by new employees who have a similar demographic profile as recent new hires.
- Plan provisions for current members are modified as disclosed earlier in this letter. New hire benefits are as provided under SB2. There are no other benefit changes reflected in future years.
- The funding methods, including the entry age normal cost method, the asset smoothing method, and the amortization method and period, remain unchanged over the projection period from that required by the statutory changes of SB2.
- Projections reflect the budgeted contribution amounts through FY 2015-2016, and actuarially determined contributions thereafter.
- The POB debt service amounts were determined by the Office of Financial Management.

Projections are designed to identify anticipated trends rather than predicting some future state of events. The projections are based on the Systems' estimated financial status on June 30, 2014, and project future events using one set of assumptions out of a range of many possibilities. A different set of assumptions would lead to different results. The projections do not predict the Systems' financial condition or their ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the Systems. Over time, a defined benefit plan's total cost will depend on a number of factors, including the amount of benefits paid, the number of people paid benefits, the duration of the benefit payments, plan expenses, and the amount of earnings on assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the time the projections were prepared. Because not all of the assumptions will unfold exactly as expected, actual results will differ from the projections. To the extent that actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse than indicated in the enclosed tables.

I certify that I am a member of the American Academy of Actuaries and that I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions, please give us a call.

Sincerely,

A handwritten signature in blue ink that reads 'Todd B. Green' followed by a horizontal line.

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

Enc.



**KERS Non-Hazardous Members  
30-Year Projected Contribution Rates Baseline**

Valuation Date June 30	Unfunded Liability at Valuation Date	Projected Funded Ratio at Valuation Date	FY Year Ending	Projected Salaries	Employer Contribution \$	Employer Contribution as a % of Salaries
2014	\$9,714,405,621	19.97%	2016	\$1,655,007,191	\$510,404,217	30.84%
2015	\$10,050,103,910	18.74%	2017	\$1,715,109,167	\$632,017,728	36.85%
2016	\$10,319,416,552	17.15%	2018	\$1,779,010,501	\$655,565,369	36.85%
2017	\$10,436,524,173	16.77%	2019	\$1,845,814,721	\$682,582,284	36.98%
2018	\$10,556,977,263	16.35%	2020	\$1,915,519,627	\$708,359,158	36.98%
2019	\$10,689,987,233	15.82%	2021	\$1,988,888,846	\$731,911,096	36.80%
2020	\$10,806,964,657	15.40%	2022	\$2,066,016,111	\$760,293,928	36.80%
2021	\$10,908,448,851	15.09%	2023	\$2,146,463,070	\$787,966,592	36.71%
2022	\$10,988,062,692	14.93%	2024	\$2,230,758,933	\$818,911,604	36.71%
2023	\$11,045,306,001	14.92%	2025	\$2,319,314,960	\$849,565,070	36.63%
2024	\$11,075,411,831	15.11%	2026	\$2,412,052,985	\$883,535,009	36.63%
2025	\$11,076,877,615	15.51%	2027	\$2,508,716,486	\$916,434,133	36.53%
2026	\$11,043,818,307	16.16%	2028	\$2,608,073,375	\$952,729,204	36.53%
2027	\$10,974,666,745	17.05%	2029	\$2,710,310,360	\$986,552,971	36.40%
2028	\$10,863,507,739	18.23%	2030	\$2,816,459,461	\$1,025,191,244	36.40%
2029	\$10,709,698,869	19.68%	2031	\$2,927,115,034	\$1,064,299,026	36.36%
2030	\$10,505,399,117	21.46%	2032	\$3,043,029,539	\$1,106,445,540	36.36%
2031	\$10,246,325,238	23.62%	2033	\$3,164,082,016	\$1,150,460,221	36.36%
2032	\$9,925,462,194	26.22%	2034	\$3,290,511,178	\$1,196,429,864	36.36%
2033	\$9,536,395,838	29.30%	2035	\$3,560,653,520	\$1,293,585,424	36.33%
2034	\$9,071,970,138	32.92%	2036	\$3,706,551,085	\$1,346,590,009	36.33%
2035	\$8,525,444,639	37.13%	2037	\$3,860,446,276	\$1,401,728,043	36.31%
2036	\$7,887,399,205	41.99%	2038	\$4,021,454,968	\$1,460,190,299	36.31%
2037	\$7,148,811,795	47.60%	2039	\$4,189,060,689	\$1,518,534,500	36.25%
2038	\$6,298,697,261	54.03%	2040	\$4,362,723,404	\$1,581,487,234	36.25%
2039	\$5,328,546,442	61.33%	2041	\$4,542,022,630	\$1,641,941,181	36.15%
2040	\$4,224,363,702	69.57%	2042	\$4,727,623,355	\$1,709,035,843	36.15%
2041	\$2,978,479,277	78.73%	2043	\$4,919,743,700	\$1,773,567,604	36.05%
2042	\$1,573,860,610	88.87%	2044	\$5,118,592,281	\$1,845,252,517	36.05%
2043	\$1,374,078	99.99%	2045	\$5,324,463,916	\$113,943,528	2.14%
2044	(\$1,758,844,992)	112.14%	2046	\$5,537,642,853	\$118,505,557	2.14%
2045	(\$3,084,355,883)	122.80%	2047	\$5,759,106,396	\$121,517,145	2.11%
2046	(\$3,348,365,236)	124.13%	2048	\$5,989,448,761	\$126,377,369	2.11%



**KERS Non-Hazardous Members  
30-Year Projected Contribution Rates Based on an Additional \$5.0 Billion Dollar Contribution in Fiscal  
Year 2017**

Valuation Date June 30	Unfunded Liability at Valuation Date	Projected Funded Ratio at Valuation Date	FY Year Ending	Projected Salaries	Employer Contribution as a % of Salaries	Employer Contribution In \$'s	POB Debt Service Cost	Total Annual Cost	Annual (Savings)/Cost
2014	\$9,714,405,616	19.97%	2016	\$1,655,007,191	30.84%	\$510,404,217	\$0	\$510,404,217	\$0
2015	\$10,050,103,910	18.74%	2017	\$1,715,109,167	36.85%	\$632,017,728	\$0	\$632,017,728	\$0
2016	\$10,319,416,552	17.15%	2018	\$1,779,010,501	36.85%	\$655,565,369	\$0	\$655,565,369	\$0
2017	\$5,249,024,173	58.14%	2019	\$1,845,814,721	20.26%	\$373,962,062	\$334,447,000	\$708,409,062	\$25,826,778
2018	\$4,980,414,763	60.54%	2020	\$1,915,519,627	20.26%	\$388,084,277	\$334,447,000	\$722,531,277	\$14,172,119
2019	\$5,015,376,026	60.50%	2021	\$1,988,888,846	18.91%	\$376,098,881	\$334,447,000	\$710,545,881	(\$21,365,215)
2020	\$5,039,042,798	60.55%	2022	\$2,066,016,111	18.91%	\$390,683,646	\$334,447,000	\$725,130,646	(\$35,163,282)
2021	\$5,077,088,025	60.48%	2023	\$2,146,463,070	18.64%	\$400,100,716	\$334,447,000	\$734,547,716	(\$53,418,876)
2022	\$5,102,820,471	60.49%	2024	\$2,230,758,933	18.64%	\$415,813,465	\$334,447,000	\$750,260,465	(\$68,651,139)
2023	\$5,121,081,460	60.55%	2025	\$2,319,314,960	18.46%	\$428,145,541	\$334,447,000	\$762,592,541	(\$86,972,529)
2024	\$5,125,084,768	60.72%	2026	\$2,412,052,985	18.46%	\$445,264,981	\$334,447,000	\$779,711,981	(\$103,823,028)
2025	\$5,117,498,783	60.97%	2027	\$2,508,716,486	18.29%	\$458,844,246	\$334,447,000	\$793,291,246	(\$123,142,887)
2026	\$5,092,191,217	61.34%	2028	\$2,608,073,375	18.29%	\$477,016,620	\$334,447,000	\$811,463,620	(\$141,265,584)
2027	\$5,051,417,131	61.82%	2029	\$2,710,310,360	18.11%	\$490,837,206	\$334,447,000	\$825,284,206	(\$161,268,765)
2028	\$4,989,566,210	62.44%	2030	\$2,816,459,461	18.11%	\$510,060,808	\$334,447,000	\$844,507,808	(\$180,683,436)
2029	\$4,909,516,831	63.18%	2031	\$2,927,115,034	17.98%	\$526,295,283	\$334,447,000	\$860,742,283	(\$203,556,743)
2030	\$4,804,651,254	64.08%	2032	\$3,043,029,539	17.98%	\$547,136,711	\$334,447,000	\$881,583,711	(\$224,861,829)
2031	\$4,676,200,168	65.14%	2033	\$3,164,082,016	17.86%	\$565,105,048	\$334,447,000	\$899,552,048	(\$250,908,173)
2032	\$4,517,860,654	66.41%	2034	\$3,290,511,178	17.86%	\$587,685,296	\$334,447,000	\$922,132,296	(\$274,297,568)
2033	\$4,330,530,175	67.89%	2035	\$3,560,653,520	17.73%	\$631,303,869	\$334,447,000	\$965,750,869	(\$327,834,555)
2034	\$4,107,237,039	69.63%	2036	\$3,706,551,085	17.73%	\$657,171,507	\$334,447,000	\$991,618,507	(\$354,971,502)
2035	\$3,848,818,826	71.62%	2037	\$3,860,446,276	17.60%	\$679,438,545	\$334,447,000	\$1,013,885,545	(\$387,842,498)
2036	\$3,547,143,569	73.91%	2038	\$4,021,454,968	17.60%	\$707,776,074	\$334,447,000	\$1,042,223,074	(\$417,967,225)
2037	\$3,202,538,783	76.52%	2039	\$4,189,060,689	17.43%	\$730,153,278	\$334,447,000	\$1,064,600,278	(\$453,934,222)
2038	\$2,805,829,129	79.52%	2040	\$4,362,723,404	17.43%	\$760,422,689	\$334,447,000	\$1,094,869,689	(\$486,617,545)
2039	\$2,358,932,443	82.88%	2041	\$4,542,022,630	17.20%	\$781,227,892	\$334,447,000	\$1,115,674,892	(\$526,266,289)
2040	\$1,849,974,171	86.67%	2042	\$4,727,623,355	17.20%	\$813,151,217	\$334,447,000	\$1,147,598,217	(\$561,437,626)
2041	\$1,283,749,219	90.83%	2043	\$4,919,743,700	16.74%	\$823,565,095	\$334,447,000	\$1,158,012,095	(\$615,555,509)
2042	\$645,015,833	95.44%	2044	\$5,118,592,281	16.74%	\$856,852,348	\$334,447,000	\$1,191,299,348	(\$653,953,169)
2043	(\$49,996,085)	100.35%	2045	\$5,324,463,916	2.11%	\$112,346,189	\$334,447,000	\$446,793,189	\$332,849,661
2044	(\$828,440,314)	105.72%	2046	\$5,537,642,853	2.11%	\$116,844,264	\$334,447,000	\$451,291,264	\$332,785,707
2045	(\$2,082,577,692)	115.39%	2047	\$5,759,106,396	2.11%	\$121,517,145	\$334,447,000	\$455,964,145	\$334,447,000
2046	(\$2,269,796,440)	116.36%	2048	\$5,989,448,761	2.11%	\$126,377,369	\$334,447,000	\$460,824,369	\$334,447,000