



Legislative Post Audit Performance Audit Report Highlights

Highlights

Performance Audit of the Kansas Public Employees Retirement System (KPERs)

Report Highlights

February 2013 • R-13-004

Summary of Legal Requirements

State Law calls for a triennial performance audit of the Kansas Public Employees Retirement System. This audit was conducted by Cochran Head Vick & Co., P.A., a CPA firm under contract with the Legislative Division of Post Audit.

Background Information

The Kansas Public Employees Retirement System (KPERs) was established in 1962. KPERs provides three statewide defined-benefit retirement plans for more than 280,000 active, inactive and retired state and local public employees:

- Kansas Public Employees Retirement System
- Kansas Police and Firemen's Retirement System
- Kansas Retirement System for Judges

In addition to retirement benefits, KPERs provides basic and optional life insurance and disability benefits for active members.

QUESTION: *How Has the Recent Economic Recovery Affected the Kansas Public Employees Retirement System's Funding Situation?*

Overall Conclusion

While the economic downturn and resultant investment losses in 2008 had a significant negative impact on the funding ratio and the unfunded actuarial liability of KPERs, the economic recovery and favorable investment returns in calendar years 2009 and 2010 helped alleviate some of that impact. However, the unfavorable investment return experienced in calendar year 2011 has resulted in little impact on the unfunded actuarial liability or the funding ratios.

As of the latest actuarial valuation, December 31, 2011, the Kansas Public Employee's Retirement System had an unfunded actuarial liability of \$9.2 billion and a funded ratio of 59.2%. Even in times of economic recovery these key factors had been impacted negatively. The actual funding progress of KPERs is heavily dependent on the actual investment returns as well as other factors, such as employer contributions. Due to statutory restraints KPERs employers only paid 74% of the recommended contribution in 2011.

Major legislation was passed in 2011 and 2012 to help restore the System's long-term financial prospects by tightening various eligibility and benefit rules, increasing the employer contribution cap rate and providing for alternative sources of revenue.

Even in times of economic recovery it will still be a challenge to manage the long-term funding progress of the System.

Comparison to Other State's Systems

The auditors identified five comparable public employee retirement systems with similar benefits structures:

- Kentucky Retirement System (KERS)
- Missouri State Retirement System (MOSERS)
- New Mexico State Retirement System (PERA)
- Ohio School Employees Retirement System (SERS)
- Oklahoma Teachers Retirement (OTRS)

The full report includes numerous detailed comparisons among the various plans.

The figure on the following page summarizes various funding and performance measures for KPERs over the past four fiscal years, and ranks KPERs against the comparable systems. KPERs ranked towards the middle for most of the measures.

House Pensions & Benefits

Date: 2/18/13

Attachment # 2

KPERS SYSTEM
(includes the death and disability program)

Financial Reporting Date	6/30/09		6/30/10		6/30/11		6/30/12
	Amount (a)	Rank (b)	Amount (a)	Rank (b)	Amount (a)	Rank (b)	Amount (a)
Funded Ratio (c)	58%	5	63%	4	61%	4	59%
Unfunded Actuarial Liability (c)	\$ 8,595,657	4	\$ 7,993,474	4	\$ 8,535,132	5	\$ 9,499,157
Contributions (d)	\$ 764,190	3	\$ 811,171	3	\$ 868,952	4	\$ 915,741
Net Investment Income (Loss)	\$ (2,571,592)	4	\$ 1,485,968	4	\$ 2,499,491	3	\$ 89,057

(a) All dollar amounts in thousands
 (b) Rank: 1 (best) - 6 (worst)
 (c) The Funded Ratio and Unfunded Actuarial Liability (UAL) are based on actuarial valuations as of December 31, for the calendar year falling within the financial reporting date.
 (d) To achieve comparable contributions across the selected plans, the total contributions from the audited financial statements were utilized.

SUMMARY OF RECOMMENDATIONS

- The auditors made no recommendations.

AGENCY RESPONSE

- KPERS provided a response that gave additional information.

HOW DO I GET AN AUDIT APPROVED?

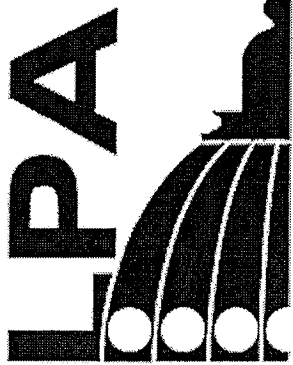
By law, individual legislators, legislative committees, or the Governor may request an audit, but any audit work conducted by the Division must be approved by the Legislative Post Audit Committee, a 10-member committee that oversees the Division's work. Any legislator who would like to request an audit should contact the Division directly at (785) 296-3792.

**Legislative Division of
Post Audit**

800 SW Jackson Street
 Suite 1200
 Topeka, Kansas 66612-2212
 Telephone (785) 296-3792
 Fax: (785) 296-4482
 Website:
<http://www.kslpa.org/>

Scott Frank
 Legislative Post Auditor

For more information on this
 audit report, please contact
Julie Pennington
 (785) 296-3792
julie.pennington@pa.ks.gov



PERFORMANCE AUDIT REPORT

Reviewing How the Recent Economic Recovery Has Affected the Kansas Public Employees Retirement System's Funding Situation

**A Report to the Legislative Post Audit Committee
By Cochran Head Vick & Co., P.A., Under Contract with
the Legislative Division of Post Audit
State of Kansas
February 2013**

Legislative Post Audit Committee

Legislative Division of Post Audit

THE LEGISLATIVE POST Audit Committee and its audit agency, the Legislative Division of Post Audit, are the audit arm of Kansas government. The programs and activities of State government now cost about \$14 billion a year. As legislators and administrators try increasingly to allocate tax dollars effectively and make government work more efficiently, they need information to evaluate the work of governmental agencies. The audit work performed by Legislative Post Audit helps provide that information.

We conduct our audit work in accordance with applicable government auditing standards set forth by the U.S. Government Accountability Office. These standards pertain to the auditor's professional qualifications, the quality of the audit work, and the characteristics of professional and meaningful reports. The standards also have been endorsed by the American Institute of Certified Public Accountants and adopted by the Legislative Post Audit Committee.

The Legislative Post Audit Committee is a bipartisan committee comprising five senators and five representatives. Of the ten members, the two majority caucuses each have three members, while the two minority caucuses each have two members.

Audits are performed at the direction of the Legislative Post Audit Committee. Legislators or committees should make their requests

for performance audits through the chair or any other member of the committee. Copies of all completed performance audits are available from the division's office.

LEGISLATIVE POST AUDIT COMMITTEE

Representative Peggy Mast, Chair
Representative John Barker
Representative Tom Burroughs
Representative Virgil Peck
Representative Ed Trimmer

Senator Jeff Longbine, Vice-Chair
Senator Anthony Hensley
Senator Laura Kelly
Senator Julia Lynn
Senator Michael O'Donnell

LEGISLATIVE DIVISION OF POST AUDIT

800 SW Jackson
Suite 1200
Topeka, Kansas 66612-2212
Telephone (785) 296-3792
FAX (785) 296-4482
Website: <http://www.kslpa.org>
Scott Frank, Legislative Post Auditor

HOW DO I GET AN AUDIT APPROVED?

By law, individual legislators, legislative committees, or the Governor may request an audit, but any audit work conducted by the division must be directed by the Legislative Post Audit Committee, the 10-member joint committee that oversees the Division's work. Any legislator who would like to request an audit should contact the division directly at (785) 296-3792.

The Legislative Division of Post Audit supports full access to the services of State government for all citizens. Upon request, Legislative Post Audit can provide its audit reports in large print, audio, or other appropriate alternative format to accommodate persons with visual impairments. Persons with hearing or speech disabilities may reach us through the Kansas Relay Center at 1-800-766-3777. Our office hours are 8:00 a.m. to 5:00 p.m., Monday through Friday.



LEGISLATURE OF KANSAS

LEGISLATIVE DIVISION OF POST AUDIT

800 SOUTHWEST JACKSON STREET, SUITE 1200
TOPEKA, KANSAS 66612-2212
TELEPHONE (785) 296-3792
FAX (785) 296-4482
WWW.KSLPA.ORG

February 11, 2013

To: Members, Legislative Post Audit Committee

Representative Peggy Mast, Chair
Representative John Barker
Representative Tom Burroughs
Representative Virgil Peck, Jr.
Representative Ed Trimmer

Senator Jeff Longbine, Vice-Chair
Senator Anthony Hensley
Senator Laura Kelly
Senator Julia Lynn
Senator Michael O'Donnell

This report contains the findings and conclusions from the completed performance audit, *Reviewing How the Recent Economic Recovery Has Affected the Kansas Public Employees Retirement System's Funding Situation*. Cochran Head Vick & Co., P.A., a certified public accounting firm under contract with the Legislative Division of Post Audit, conducted this audit. We would be happy to discuss the findings or any other items presented in this report with any legislative committees, individual legislators, or other State officials.

Sincerely,

Scott Frank
Legislative Post Auditor

This audit was conducted by Cochran Head Vick & Co., P.A., under contract with the Legislative Division of Post Audit. Julie Pennington was the audit manager. If you need any additional information about the audit's findings, please contact Julie at the Division's offices.

Legislative Division of Post Audit
800 SW Jackson Street, Suite 1200
Topeka, Kansas 66612

(785) 296-3792
Website: www.kslpa.org

CHV

COCHRAN HEAD VICK & CO., P.A.

& Co

Certified Public Accountants

1333 Meadowlark Lane
Kansas City, KS 66102
(913) 287-4433
(913) 287-0010 FAX

January 31, 2013

Legislative Post Audit Committee Members:

The performance audit report on How has the Recent Economic Recovery Affected the Kansas Public Employees Retirement System's Funding Situation is enclosed. This work was performed in accordance with *Government Auditing Standards* for performance audits.

Please do not hesitate to contact Mr. David L. Cochran, CPA, at the undersigned if you have any questions.

Cochran Head Vick & Co., P.A.

Other Offices

1251 NW Briarcliff Pkwy
Suite 125
Kansas City, MO 64116
(816) 453-7014
(816) 453-7016 FAX

400 Jules Street
Suite 415
St. Joseph, MO 64501
(816) 364-1118
(816) 364-6144 FAX

6700 Antioch Rd, Suite 460
Merriam, Kansas 66204
(913) 378-1100
(913) 378-1177 FAX

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

PERFORMANCE AUDIT

***“HOW HAS THE RECENT ECONOMIC RECOVERY AFFECTED THE KANSAS
PUBLIC EMPLOYEES RETIREMENT SYSTEM’S FUNDING SITUATION”***

JUNE 30, 2012

Table of Contents

	<u>Page</u>
Independent Auditors' Report	1
Introduction	2-3
Objective 1 <i>Identify the impact of the recent economic recovery on the Kansas Public Employees Retirement System Funding Situation</i>	4
Conclusion	5-6
Attachment 1 - Affect on Investment Return	7-8
Other Audit Objectives, Scope and Methodology	9
Objective 2 <i>Identify states with similar state public employee retirement plan characteristics and benefit structures to that of the Kansas Public Employees Retirement System</i>	9
Objective 3 <i>Identify key financial information, ratios and amounts for the five selected plans and compare to KPERS</i>	10
Objective 2 Findings	11
Objective 3 Findings	12-21
Other Information	
Net Assets VS Real GDP	22
Net Assets VS Real GDI	23
Consumer Price Index	24-25
Funded Ratio and Unfunded Actuarial Liability	26
Contributions	27-29
Investment Performance	30
Exhibit 1 – Memo from Mr. Alan Conroy	31-32
Exhibit 2 – System Selection Process	33
Exhibit 3 - KPERS (Kansas Public Employees Retirement System) Summary Information	34
Exhibit 4 - KERS (Kentucky Employees Retirement System) Summary Information	35-36
Exhibit 5 - MOSERS (Missouri State Employees Retirement System) Summary Information	37
Exhibit 6 - PERA (New Mexico Public Employees Retirement System) Summary Information	38
Exhibit 7 - SERS (Ohio School Employees Retirement System) Summary Information	39

Table of Contents (Continued)

Exhibit 8 - OTRS (Oklahoma Teachers Retirement System) Summary Information	40
Exhibit 9 - KPERS (Kansas Public Employees Retirement System) Combined Actuarial Information	41
Exhibit 10 - KERS (Kentucky Employees Retirement System) Combined Actuarial Information	42
Exhibit 11 - MOSERS (Missouri State Employees Retirement System) Combined Actuarial Information	43
Exhibit 12 - PERA (New Mexico Public Employees Retirement System) Combined Actuarial Information	44
Exhibit 13 - SERS (Ohio School Employees Retirement System) Combined Actuarial Information	45
Exhibit 14 - OTRS (Oklahoma Teachers Retirement System) Combined Actuarial Information	46
Appendix 1 - Scope Statement	47



COCHRAN HEAD VICK & CO., P.A.

Certified Public Accountants

1333 Meadowlark Lane
Kansas City, KS 66102
(913) 287-4433
(913) 287-0010 FAX

Independent Auditors' Report

Members of the Legislative Post Audit Committee
Topeka, Kansas

We have completed our performance audit, "HOW HAS THE RECENT ECONOMIC RECOVERY AFFECTED THE KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM'S FUNDING SITUATION". Our performance audit covered the period from December 31, 2008 through December 31, 2011. The most recent actuarial data available at the time of the performance audit.

We conducted this performance audit in accordance with *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Other Offices

1251 NW Briarcliff Pkwy
Suite 125
Kansas City, MO 64116
(816) 453-7014
(816) 453-7016 FAX

400 Jules Street
Suite 415
St. Joseph, MO 64501
(816) 364-1118
(816) 364-6144 FAX

6700 Antioch Rd, Suite 460
Merriam, Kansas 66204
(913) 378-1100
(913) 378-4177 FAX

Cochran Head Vick & Co. P.A.

Kansas City, Kansas
January 31, 2013

Introduction

The Kansas Public Employees Retirement System (KPERS or the System) administers the public retirement plans for state employees, employees of many jurisdictions, such as cities, counties and school districts including the Kansas Police and Firemen’s Retirement System (KP&F) and the Kansas Retirement System for Judges (Judges), collectively the System. The System relies on funding from employer contributions, employee contributions and investment earnings to accumulate the funds needed to pay benefits.

State law requires a performance audit of the System at least once every three years. The performance audit performed in 2009 determined that because of the economic recession during 2008 and 2009 the System suffered a serious negative impact on the funding ratio and unfunded actuarial liability. As the economy has improved since the previous performance audit the Legislators have expressed an interest about the extent to which the recent economic recovery has affected KPERS’ funding situation. Specifically the Legislative Post Audit committee has asked; “How has the recent economic recovery affected the Kansas Public Employees Retirement System’s Funding situation?”

An economic recovery is a period of time following a recession which is characterized by economic expansion, including positive gains in Gross Domestic Product (GDP), Gross Domestic Income (GDI), employment and other economic indicators. The National Bureau of Economic Research has indicated the economic recovery officially started in June 2009.

The economic indicators selected report an economic downturn from June 30, 2007 to June 30, 2009 and an economic recovery from June 30, 2009 to June 30, 2012. During the economic recovery, KPERS experienced the following performance and rank when compared to five public employee retirement systems with similar benefit structures. Please note that rank is not displayed for the period ending June 30, 2012 because comparable information was not available at the time of the performance audit.

KPERS SYSTEM

Includes the death and disability program

Financial Reporting Date	(\$ in thousands)							
	<u>6/30/09</u>		<u>6/30/10</u>		<u>6/30/11</u>		<u>6/30/12</u>	
	Amount	Rank (A)	Amount	Rank	Amount	Rank	Amount	Amount
* Funded Ratio	58%	5	63%	4	61%	4	59%	
* Unfunded Actuarial Liability	\$ 8,595,657	4	\$ 7,993,474	4	\$ 8,535,132	5	\$ 9,499,157	
** Contributions	\$ 764,190	3	\$ 811,171	3	\$ 868,952	4	\$ 915,741	
Net investment income (loss)	\$ (2,571,592)	4	\$ 1,485,968	4	\$ 2,499,491	3	\$ 89,057	

(A) Rank: 1 best - 5 worst

** The Funded Ratio and Unfunded Actuarial Liability (UAL) are based on actuarial valuations as of December 31, for the calendar year falling within the financial reporting date.*

*** To achieve comparable contributions across the selected plans, the total contributions from the audited financial statements were utilized.*

The System has an actuarial valuation performed once a year. The December 31, 2011 actuarial valuation expressed the following comments on the impact of the economic recovery on KPERS funding:

“The investment losses in 2008 are still impacting most public retirement systems. Favorable investment returns in 2009 and 2010 have helped alleviate some of the 2008 losses. However, the 2011 return of 0.08% has resulted in a setback to the funding improvement. Like most public retirement systems, KPERS uses an asset smoothing method to smooth out investment experience above and below the assumed rate of 8% per annum”.

“The deferred investment loss grew considerably since the last valuation, increasing from \$672 million at December 31, 2010 to \$902 million at December 31, 2011. This deferred experience will flow through the asset valuation method in the next four years and be recognized in the valuation process, absent the investment experience above the 8% assumed rate of return”.

As the deferred losses are recognized, the funded ratio can be expected to decline and the unfunded actuarial liability and the actuarial contribution rate are expected to increase”.

Despite the economic recovery, in an article in the Fiscal Times dated March 24, 2011, the Kansas Public Employee’s Retirement System was ranked in the bottom ten of fully-funded state pension plans. This data was compiled by the Center for Retirement Research at Boston College and was measured based on KPERS funding ratio as of December 31, 2009. Funding levels have been slow to rebound because the System is still suffering from the impact of 2008 investment returns and poor market performance in 2011. The funding progress of KPERS will be heavily dependent on the actual investment return in future years, as well as other key factors.

Affect on Funding Situation

Objective - Legislators have expressed an interest about the extent to which the recent economic recovery has affected the value of the system's investment portfolio and the system's ability to pay future benefits.

Scope - "How has the recent economic recovery affected the Kansas Public Employees Retirement System's funding situation?"

Methodology - We have made the calculations on Attachment 1 and supporting attachments. We have also included other information that adds to or supports other sections of our report.

As you are aware there are many components that affect the unfunded actuarial liability and the system funding situation, investment returns, contributions and other additions, benefits paid, administrative expenses and other deductions. Positive investment returns and contributions decrease the unfunded actuarial liability whereas benefits and expenses increase the unfunded actuarial liability. While each of these principle components has an impact on the unfunded actuarial liability, we have limited our response to the question on the impact of investment return. There are many other factors associated with the other components that would affect the unfunded actuarial liability and funding situation, such as, contribution rates, actuarial assumptions, changes in benefit provisions and others. We did not consider the impact of these other components and their affect on the unfunded actuarial liability and funding situation.

The tables and charts included with other information compare certain KPERS information to other similar state public retirement employee retirement plans. This information is presented for comparative purposes only and in no way does the information presented for these plans have any impact on KPERS funding situation.

Conclusion

To answer the question how has the recent economic recovery affected the Kansas Public Employees Retirement System's funding situation we have in this report presented historic and comparative information which we believe is helpful in gaining an understanding of how the funding situation has progressed from the end of the recession through the economic recovery.

While the economic recovery can be viewed by economists as a period of economic expansion, including positive gains in GDP, GDI, and employment and other indicators, we have concluded the principal economic indicator having a positive impact on the system's funding situation other than contribution rates is investment return.

While the economic downturn and resultant investment losses in 2008 had a significant negative impact on the funding ratio and the unfunded actuarial liability of KPERS, the economic recovery and favorable investment returns in calendar years 2009 and 2010 helped alleviate some of that impact. However, the unfavorable investment return experienced in calendar year 2011 has resulted in little impact on the unfunded actuarial liability or the funding ratios.

As of the latest actuarial valuation, December 31, 2011, the Kansas Public Employee's Retirement System had an unfunded actuarial liability of \$9.2 billion and a funded ratio of 59.2%. Even in times of economic recovery these key factors had been impacted negatively. The actual funding progress of KPERS is heavily dependent on the actual investment returns as well as other factors, such as employer contributions. Due to statutory restraints KPERS only paid 74% of the recommended contribution in 2011.

Major legislation was passed in 2011 and 2012 to help restore the System's long-term financial prospects by tightening various eligibility and benefit rules, increasing the employer contribution cap rate and providing for alternative sources of revenue.

Even in times of economic recovery it will still be a challenge to manage the long-term funding progress of the System.

The recent economic recovery has had a positive impact on the System's funding situation. To support this conclusion we have compared the actual return on investments for the years ended December 31, 2009 through December 31, 2011 to the three year average investment return experienced for the three years ended December 31, 2006 through December 31, 2008. We have also compared the actual rate of return to the investment experienced for the year ended December 31, 2008, which was at the height of the economic downturn.

Affect on Funding Situation

The following table summarizes the affect on investment returns resulting from the 2009, 2010 and 2011 economic recovery.

<u>Reference</u>	<u>Base Period 3 Year Average</u>	<u>Base Period 2008 Calendar Year Only</u>
Attachment 1 - Affect on investment return increase	<u>\$ 3,657,313,978</u>	<u>\$ 8,682,400,699</u>

Affect on Investment Return
Three Year Average

Attachment 1

Methodology:

Comparison of the actual return to three (3) year average for 2006, 2007 and 2008.

During the calendar years ended December 31, 2006 through December 31, 2011 the State, School and Local groups experienced the following investment returns:

Calculation of 3 Year Base Period Rate of Return

	Return on investment		
December 31, 2006	15.50% *		
December 31, 2007	8.70% *		
December 31, 2008	-28.50% *	-1.43%	
December 31, 2009	22.40% *		
December 31, 2010	13.07% *		
December 31, 2011	-0.10% *		

In order to measure the effect of the economic recovery on investment returns we utilized investment experience for the three years ended December 31, 2006, 2007 and 2008 as a measurement base (base period). The three year average rate of return for this period was (1.43%). The following table summarizes the estimated return on investment on the group's initial investment as of January 1, 2009 had the base period average rate of return been used and compares that estimated return on investment to the group's actual compounded return on investment for the same period;

	Base period average rate of return		Compounded Return on Investment	
Investments at January 1, 2009		\$ 8,536,334,981		\$ 8,536,334,981
Return on investment-2009	-1.43%	(122,069,589)	22.40%	1,912,069,372
Cumulative investment, 12/31/09		8,414,265,392		10,448,404,353
Return on investment -2010	-1.43%	(120,323,995)	13.07%	1,365,846,762
Cumulative investment, 12/31/10		8,293,941,397		11,814,251,115
Return on investment -2011	-1.43%	(118,603,362)	-0.10%	(11,599,102)
Cumulative investment, 12/31/11		\$ 8,175,338,035		\$ 11,802,652,013
Investments at January 1, 2009		\$ 8,536,334,981		\$ 8,536,334,981
Total return on investment-2009-2011		(A) (360,996,946)		(B) 3,266,317,032
Cumulative investment, 12/31/11		\$ 8,175,338,035		\$ 11,802,652,013

As the above table illustrates the impact on investment return during the economic recovery as compared to investment return using the base period rate of return is calculated as \$3,657,313,978. $(\$360,996,946) + 3,266,317,032 = \$3,657,313,978$.

(A) (B)

Attachment 1 (continued)

Affect on Investment Return
Single Year 2008

Comparison of actual return to rate of return for 2008 only.

Using the group's investment experience for 2008 only, which coincides with the height of the economic recession, the estimated return on investment on the group's initial investment as of January 1, 2009 in comparison to the actual compounded rate of return is as follows;

	<u>Base period rate of return</u>		<u>Compounded Return on Investment</u>	
Investments at January 1, 2009		\$ 8,536,334,981		\$ 8,536,334,981
Return on investment-2009	-28.50%	<u>(2,432,855,469)</u>	22.40%	<u>1,912,069,372</u>
Cumulative investment, 12/31/09		6,103,479,512		10,448,404,353
Return on investment -2010	-28.50%	<u>(1,739,491,661)</u>	13.07%	<u>1,365,846,762</u>
Cumulative investment, 12/31/10		4,363,987,851		11,814,251,115
Return on investment -2011	-28.50%	<u>(1,243,736,538)</u>	-0.10%	<u>(11,599,102)</u>
Cumulative investment, 12/31/11		<u>\$ 3,120,251,314</u>		<u>\$ 11,802,652,013</u>
Investments at January 1, 2009		\$ 8,536,334,981		\$ 8,536,334,981
Total return on investment-2009-2011		(A) <u>(5,416,083,667)</u>		(B) <u>3,266,317,032</u>
Cumulative investment, 12/31/11		<u>\$ 3,120,251,314</u>		<u>\$ 11,802,652,013</u>

As the above table illustrates the impact on investment return during the economic recovery as compared to investment return using the 2008 rate of return is estimated at \$8,682,400,699.
(\$5,416,083,667) + 3,266,317,032 = \$8,682,400,699.

(A) (B)

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Other Audit Objectives, Scope and Methodology

In addition to answering the question “*How has the Recent Economic Recovery Affected the Kansas Public Employees Retirement System’s Funding Situation?*”, the Legislative Post Audit Committee has engaged Cochran Head Vick & Company, P.A. to also make comparisons of data to other public employee retirement systems. This aspect of the audit was separated into the following two additional objectives that provide sufficient evidence for our conclusion.

Objective 2:

Identify states with similar state public employee retirement plan characteristics and benefit structures to that of KPERS.

Scope:

At our request Alan D. Conroy, Executive Director of KPERS, prepared the following listing of ten recommended employee retirement systems that were comparable to KPERS. See Exhibit 1.

1. Arkansas Teachers Retirement System
2. Colorado Public Employees Retirement Association
3. Idaho Public Employees Retirement System
4. Iowa Public Employees Retirement System
5. Kentucky Retirement Systems
6. Missouri State Employee Retirement System
7. Nebraska Retirement Systems
8. New Mexico Public Employees Retirement System
9. Ohio School Employees Retirement System
10. Oklahoma Teachers Retirement

Methodology:

Five retirement systems with the most similar characteristics were judgmentally selected to compare to KPERS. See Exhibit 2.

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Objective 3:

Identify key financial information, ratios and amounts for the five plans selected from those listed on Exhibit 1 and compare to KPERS.

Scope:

We requested and received the following list of key financial information that was determined by Mr. Conroy to be necessary to compare the selected plans to KPERS.

1. Asset market value
2. Number of active members
3. Number of annuitants
4. Whether assets are managed externally or internally
5. Whether members are covered by Social Security
6. Cost of living adjustment (COLA) features
7. Multiplier used in benefit formula
8. Normal retirement age
9. Employee contribution rate
10. Employer contribution rate
11. Unfunded actuarial liability
12. Funded ratio

Methodology:

We obtained the key financial information noted above from published audited financial statements for each of the selected plans for the years 2001–2011 and compared it to KPERS.

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Findings

Objective 2:

We judgmentally selected five retirement plans from the list in Exhibit 1. The region, asset market value and funded ratio were given particular significance in determining the comparable systems. We included systems that are in different census regions because the market value of assets and/or the funded ratio were similar to that of Kansas. The number of members was also used as a determining factor and was considered in our selections below. See Exhibit 2 for selection process.

System

Kentucky Retirement Systems (KERS)
Missouri State Employee Retirement System (MOSERS)
New Mexico Public Employee Retirement System (PERA)
Ohio School Employees Retirement System (SERS)
Oklahoma Teachers Retirement (OTRS)

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

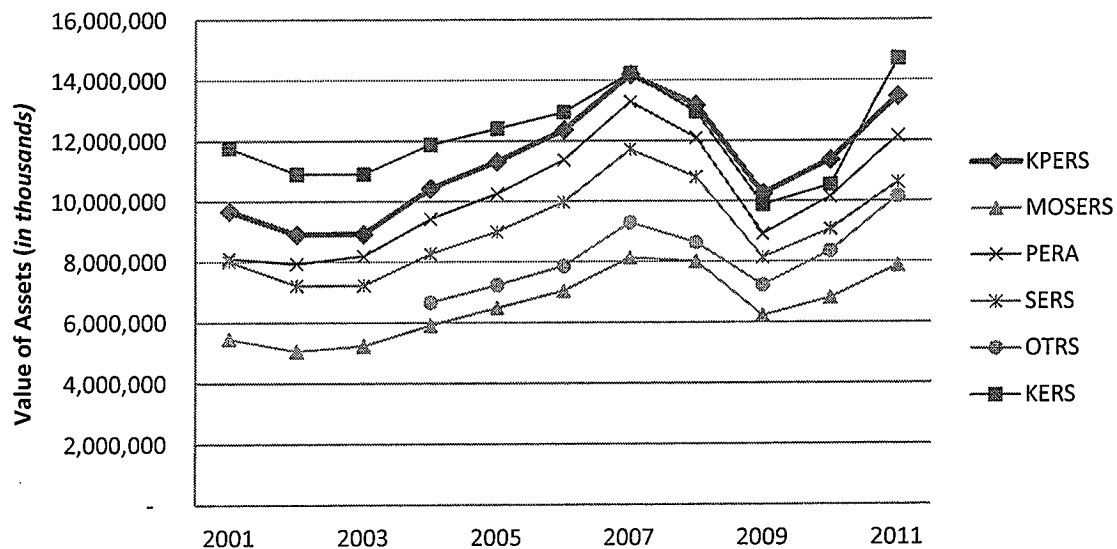
Objective 3:

Summary documents for each plan from 2001–2011 were obtained, with the exception of Oklahoma Teachers Retirement System (OTRS), which had limited information available for years prior to 2005. See Exhibits 3–8. The summary documents were then compared to each plan based on the attributes below.

1. Net assets
2. Number of active members
3. Number of active annuitants
4. Whether assets are managed externally or internally
5. Whether members are covered by Social Security
6. COLA features
7. Multiplier used in benefit formula
8. Normal retirement age
9. Employee contribution rate
10. Employer contribution rate
11. Unfunded actuarial liability
12. Funded Ratio

1. Net assets

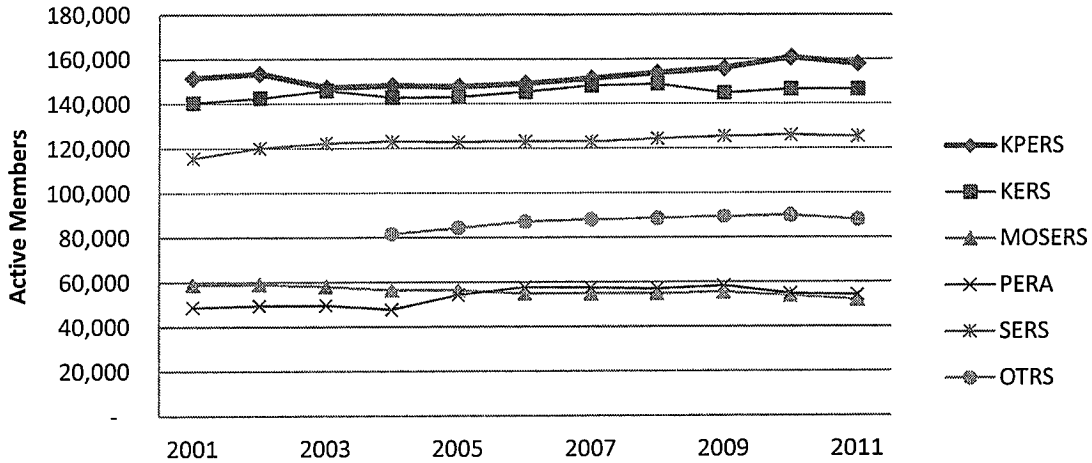
The value of the net assets held by the plan is a very reliable indicator of the performance of the plan itself. It was noted that the economy declined in 2008 and 2009 and the asset value of all of the selected plans reflected this decline. While KPERS experienced a decline of approximately \$3 billion from 2008 to 2009, the plan has, as of June 30, 2011, experienced an increase in the net asset value of the plan to \$13.5 billion. The decline and subsequent increase was comparable in each selected plan as displayed below.



**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

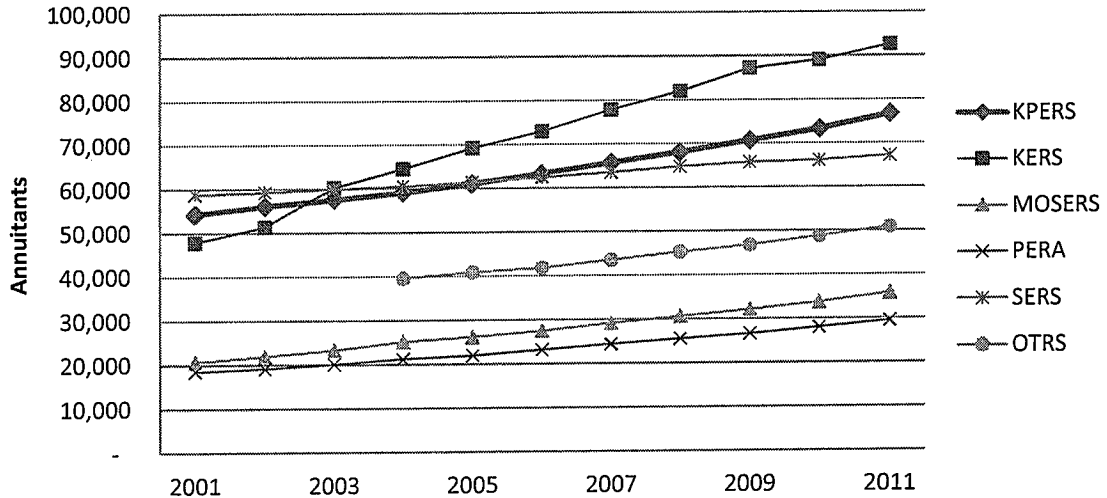
2. Number of active members

The active members of each plan were considered in the selection process. The active members for KPERS decreased from 2010 to 2011 by 1.81% with the decrease for the related plans ranging from .01%-3.8%.



3. Number of annuitants

The number of annuitants has steadily increased for each plan from 2001. KPERS reported an increase in retirees of 4.64% from 2010 to 2011, with a total increase of 22,442 from 2001 to 2011. The graph below shows the increases and confirms that the increase is affecting each plan. The selected plans reported increases ranging from 1.65%-6.18%.



**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

4. Whether assets are managed externally or internally

The selected plans, including KPERs, used investment management and consulting firms to manage the assets held for investment. Each plan has an investment policy that outlined allowable securities and investments as well as the required asset allocation. The external management of investment allows the plans to contract with multiple investment firms to further diversify their portfolio and prevent losses related to the volatility of the markets.

5. Whether members are covered by Social Security

The selected system's members were covered by Social Security.

6. Cost of Living Adjustment (COLA)

KPERs

This system does not have an annual COLA and any COLA must be approved by legislation.

KERS

This system provides annual COLA increases to each retired member. Prior to July 1, 2009, member would receive an increase equal to CPI with a maximum increase of 5%. After July 1, 2009, member's increases were changed to a maximum of 1.5% of CPI.

MOSERS

Prior to August 28, 1997, the increase was 80% of CPI with a maximum increase of 5% and a minimum of 4%. The increase is capped when the cumulative COLA is equal to 65% of the original benefit. After August 28, 1997, retirees receive a COLA increase of 80% of CPI, with a maximum of 5% and the increase is also capped at 65% of the original benefit.

PERA

Retirees from this system receive an annual 3% increase.

SERS

Retirees from this system receive an annual 3% increase.

OTRS

This system allows for COLA increases when there is legislative approval. In addition to approval, the state must provide funding for the increase.

7. Multiplier used in benefit formula

KPERs

This plan is comprised of 3 groups, KPERs, KP&F (Kansas Police & Fire) and Judges, all of which have different multipliers. KPERs uses a multiplier of 1.75% and KP&F uses 2.5%. The judges' multiplier depends on the hire date. If hired before July 1, 1987, the multiplier is

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

5% of the first 10 years and 3.5% of each additional year up to 70% of the Final Average Salary (FAS). If hired after July 1, 1987, it is 3.5% of all years with a limit of 70% of FAS.

KERS

The benefit multiplier for this system was changed for new hires after 9/1/2008. See the table below.

Non-Hazardous					
KERS	CERS		KERS & CERS after 9/1/2008		
< 13 Months	1.97%	Before 8/1/2004	2.20%	10 years or less	1.10%
> 13 Months	2.00%	After 8/1/2004	2.00%	10 to 20 years	1.30%
20 + years	2.20%			20 to 26 years	1.50%
				26 to 30 years	1.75%
				30 + years	2.00%
Hazardous					
	Before 9/1/2008		After 9/1/2008		
KERS	2.49%	10 years or less	1.30%		
CERS	2.50%	10 to 20 years	1.50%		
SPRS	2.50%	20 to 25 years	2.25%		
		25 + years	2.50%		

MOSERS

This system has two plans, MSEP (Missouri State Employees' Pension) and Judicial, which have multipliers based on a variety of factors. MSEP has three tiers; MSEP closed, MSEP 2000 and MSEP 2011, with multipliers of 1.6%, 1.7% and 1.7%, respectively. The judicial plan and Judicial 2011 use a multiplier of 50% of the highest 12 consecutive monthly salaries.

PERA

This retirement system is comprised of four plans, PERA, Judicial, Magistrate and Volunteer Fire.

PERA – This plan involves seven different groups of employees and is known as the general plan. The multiplier ranges from 2–3.5% of the average salary per service year.

Judicial – The judges in this plan receive a multiplier between 37.5–75%, depending on the years of service.

Magistrate – This plan has a benefit multiplier defined as 5% of the (number of service years, not to exceed 15, plus 5 years).

Volunteer Fireman – This multiplier is based on years of service with a set amount per month. The retirees received \$100 monthly if they accumulated 10–25 service years. If the individual has over 25 years, the monthly amount will increase to \$200.

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

SERS

This system uses a multiplier of 2.2% of accumulated service years up to 30 years, and 2.5% of the years over 30.

OTRS

This plan uses the flat rate of 2% for their multiplier.

8. Normal retirement age

KPERs		KPERs		Judges
Tier 1	Tier 2	Tier 1	Tier 2	
65/1 year	65/5 years	55/20 years	60/15 years	65/1 year
62/10 years	60/30 years	Any/32 years	55/20 years	62/10 years
Rule of 85			50/25 years	Rule of 85

KERS			
Non-Hazardous		Hazardous	
Before	After	Before	After
65/4 years	60/5 years	55/5 years	60/5 years
Any/20 years	57/ rule of 87	Any/ 20 years	Any/25 years

Note: The change in retirement age was 9/1/2008

MOSERS					
Closed	MSEP 2000	2011	Judicial Plan	2011	ALJLAP
65/4 active years	62/5 years	67/4 active years	62/12 years	67/12 years	62/12 years
65/5 years	48/rule of 80	65/5 years	60/15 years	62/20 years	60/15 years
60/15 years		55/rule of 90	55/20 years		55/20 years
48/rule of 80					

Note: The Administrative Law Judges and Legal Advisor's Plan (ALJLAP) was terminated by legislation in 2005 for new hires only. The assets were combined with MSEP plans and did not affect employees hired before April 26, 2005.

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

PERA		PERA Judicial		Magistrate	Volunteer Fire
Before	After*	Before	After**		
65/5 years	Any/ 30 years	64/5 years	64/5 years	64/5 years	55/10 years
Any/25 years	Any/ rule of 80 67/5 years	60/15 years	55/16 years	60/15 years	
				Any/24 years	

* Hired after July 1, 2010

** Hired after July 1, 2005

SERS

Tier 1	Tier 2***
60/5 years	62/10 years
55/25 years	60/25 years
Any/30 years	55/30 years

*** Hired after May 14, 2008

OTRS

Before	After****
Rule of 80	Rule of 90 62/5 years

**** Hired after July 1, 1992

9. Employee Contribution Rate

KPERS

KPERS Tier 1	KPERS Tier 2*	KP&F	Judges
4.00%	6.00%	7.00%	6.00%

* Hired after July 1, 2009

KERS

Non-Hazardous		Hazardous	
Before	After**	Before	After**
5.00%	6.00%	8.00%	9.00%

** Hired after 9/1/2008

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

MOSERS					
Closed	MSEP 2000	2011	Judicial Plan	2011	ALJLAP
0.00%	0.00%	4.00%	0.00%	4.00%	0.00%

PERA			
PERA***	Judicial	Magistrate	Volunteer Fire
4.78% - 16.65%	9.00%	9.00%	0.00%

*** This plan contains 7 groups that have different employee contribution amounts. See Exhibit 6.

SERS	
Before	After****
9.00%	10.00%

**** The employee contribution rate was increased beginning in fiscal year 2004.

OTRS

The published annual reports are from 2005-2011 and the employee contribution rate was 7.00% for that time period.

10. Employer contribution rate

KPERS

The KPERS system contains a range of plans within the system and the employer contributions vary among employees. The employers provide additional funding for the KPERS Death and Disability fund which has increased over the years. The Death and Benefit fund is funded only by employers and the employees are not required to contribute. The table below shows the employer contributions for 2001 and 2011. See Exhibit 3.

KPERS			
2001		2011	
1.21 - 15.74%		6.74 - 14.57%	
KPERS Death and Disability			
KPERS & KP&F			Judges
2000 - 2004	2005	2006 +	2006 +
0.60%	0.80%	1.00%	0.40%

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

KERS

The employer contributions for each plan have increased significantly from the period of 2001–2011. The table below displays years 2001 and 2011 for comparison. See Exhibit 4.

	KERS					
	KERS		CERS		SPRS	
	<u>2001</u>	<u>2011</u>	<u>2001</u>	<u>2011</u>	<u>2001</u>	<u>2011</u>
Non - Hazardous	5.89%	16.98%	6.34%	16.93%		
Hazardous	18.84%	26.12%	16.28%	33.25%	21.58%	45.54%

MOSERS

This system contains three plans that have different employer contributions for the different plans. The Administrative Law Judges and Legal Advisors' Plan (ALJLAP) was combined with the Missouri State Employees' Pension (MSEP) in 2005. Below is a comparison for the years 2001 and 2011. See Exhibit 5.

	MOSERS					
	MSEP		Judicial		ALJLAP	
	<u>2001</u>	<u>2011</u>	<u>2001</u>	<u>2011</u>	<u>2001</u>	<u>2004*</u>
	11.59%	13.81%	55.30%	60.03%	22.32%	20.12%

PERA

This system contains four separate plans that require the employers to contribute different percentages. The table below displays the rates for 2001 and 2011. See Exhibit 6. As previously mentioned, PERA contains 7 groups of employees that each have different percentages of employer contributions. The Volunteer Fire plan is not displayed because there are not contributions from the employers or the employees, the contributions are made by the state.

	PERA					
	PERA		Judicial		Magistrate	
	<u>2001</u>	<u>2011</u>	<u>2001</u>	<u>2011</u>	<u>2001</u>	<u>2011</u>
	9.45 - 25.72%	7.00 - 25.72%	9.00%	12.00%	9.00%	9.50%

SERS

The employer contribution rate for this system is capped at 14.00%. This percentage contribution is then allocated by the retirement board annually, at the advice of the actuary, to cover normal cost and amortize the unfunded accrued liability. The remaining amount is then available to be allocated to the Health Care Fund. Below are the amounts for 2001 and 2011 that were required for the pension plans. See Exhibit 7 for further review.

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

SERS

	<u>2001</u>	<u>2011</u>
Pension Plans	4.20%	12.57%
Health Care Fund	9.80%	1.43%
Employer Contribution	14.00%	14.00%

OTRS

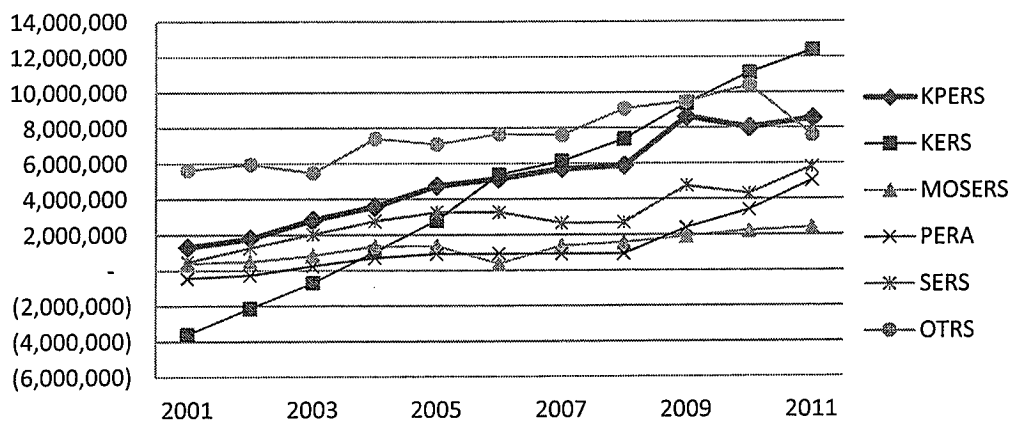
Published annual reports are for the years 2005–2011. This system receives employer contributions as well as portions of state sales tax, cigarette tax and lottery tax. The cigarette and lottery tax was passed by the legislature in 2005 and went into effect for fiscal year 2006. See Exhibit 8 for further review.

OTRS

	<u>2005</u>	<u>2011</u>
Employer Contribution	7.05%	8.55 - 9.50%
Sales Tax	3.75%	5.00%
Cigarette Tax	0.00%	1.00%
Lottery Tax	0.00%	5.00%

11. Unfunded actuarial liability

The unfunded actuarial liability for all plans are shown below. Each plan saw a significant increase in the liability for 2009 fiscal years, with increases ranging from 4.64% to 159.76%. The increase for 2011 was much smaller, with one system decreasing their liability. The change for 2011 ranged from a negative (27.02%) to a positive 48.00%. The graph below shows the volatility of the selected plans. Due to the fact that there are multiple plans within each system, the actuarial information was combined and totaled for each system to make the information comparable. See Exhibits 9-14.

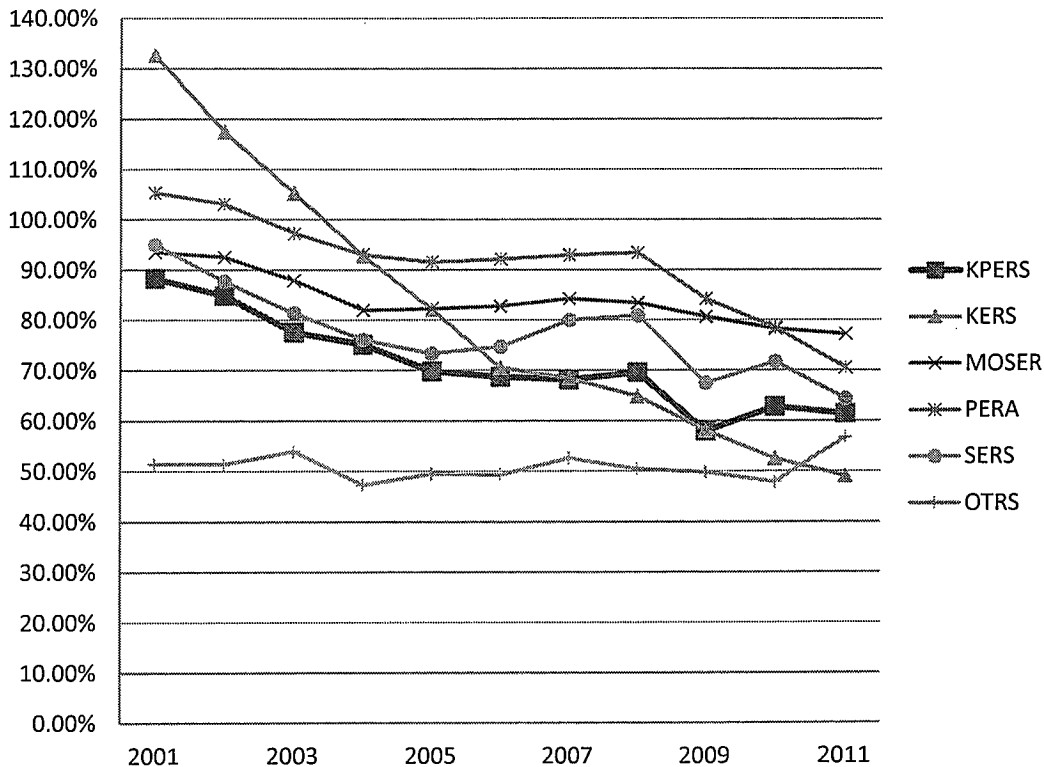


**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

12. Funded ratio

Funded ratios had an inverse relationship with the actuarial unfunded liability, therefore the funded ratios for each plan has decreased significantly. In 2009, the decreases in funded ratios ranged from (1.39%) to (16.67%), which was as expected due to the economic downturn. The ratios slightly recovered in 2011, with a range of negative (10.19%) to a positive of 18.37%.

Funded Ratio



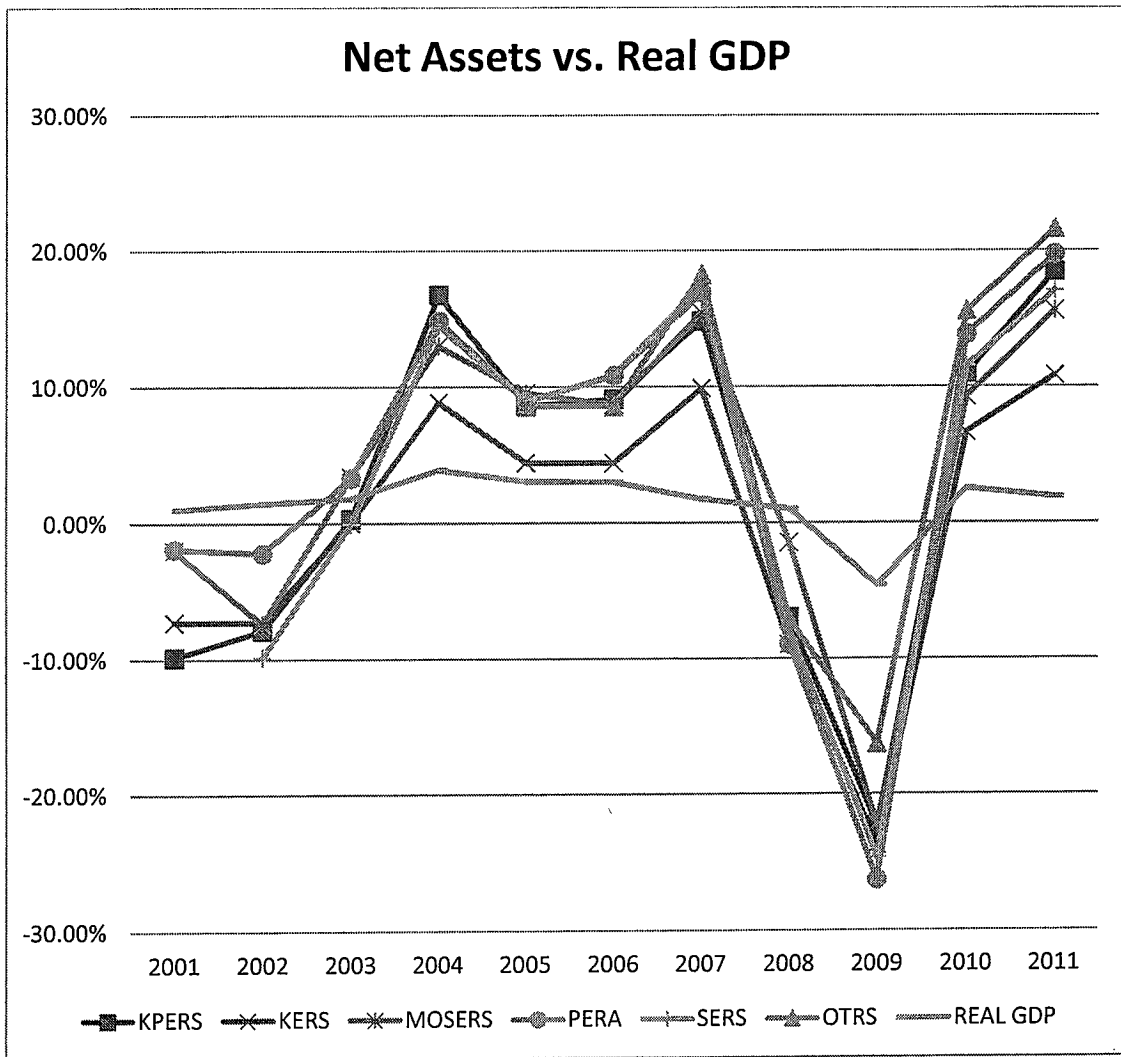
**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Other Information

We gathered information for the following economic indicators and compared the indicators to financial information that was determined to be most affected by the economy.

1. Real Gross Domestic Product

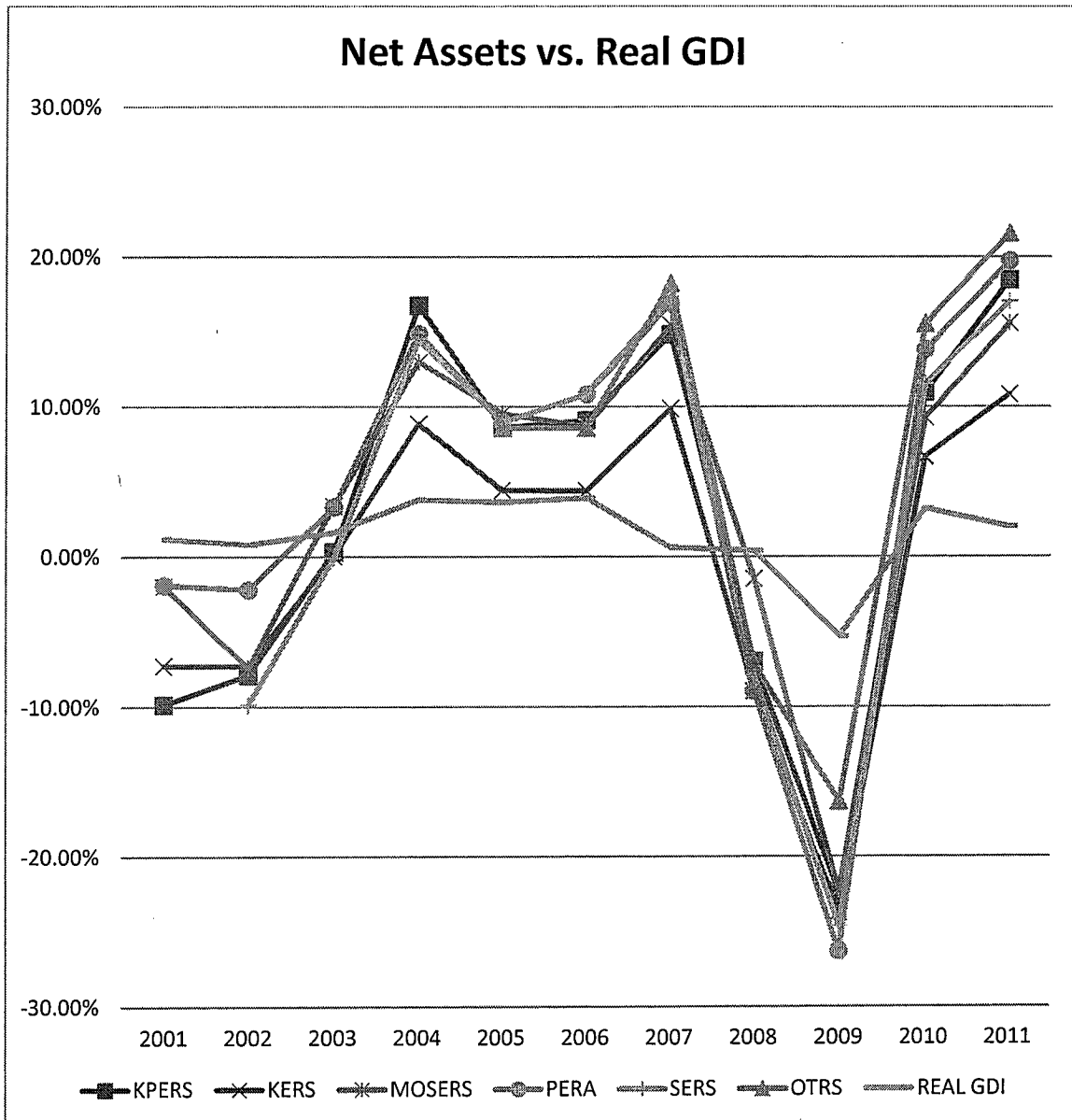
We determined that Real Gross Domestic Product would be an appropriate and accurate economic indicator for measuring the health and well-being of the economy. Real GDP is the market value of all goods and services produced in a nation during a specific time period. Historic data was obtained from the Bureau of Economic Analysis for the years 2001–2011 for the nation as a whole. The percentage change in net assets from year to year was compared to the percentage change in real GDP.



**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

2. Real Gross Domestic Income

We determined that Real Gross Domestic Income would also be an appropriate and accurate economic indicator for measuring the health and well-being of the economy. Real GDI is the sum of all income earned while producing goods and services in a nation during a specific time period. Historic data was obtained from the Bureau of Economic Analysis for the years 2001–2011 for the nation as a whole. The percentage change in net assets from year to year was compared to the percentage change in real GDI.

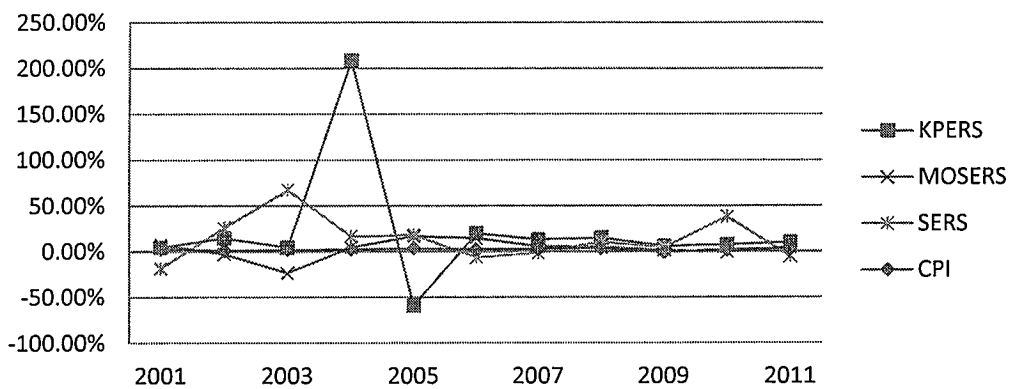


**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

3. Consumer Price-Index

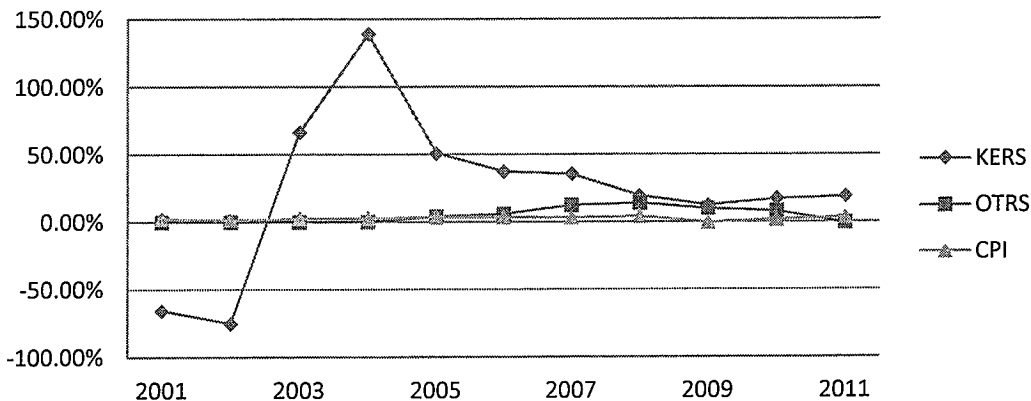
The consumer price-index was determined to be a useful tool in determining the position of the economy. We obtained information regarding the change in CPI from the Bureau of Labor Statistics and compared the systems by their respective census region. It was determined that the best comparison for the change in CPI was the change in employer contributions for the selected plans. The graphs below detail how the employer contributions changed in relation to the economy.

Midwest Census Region



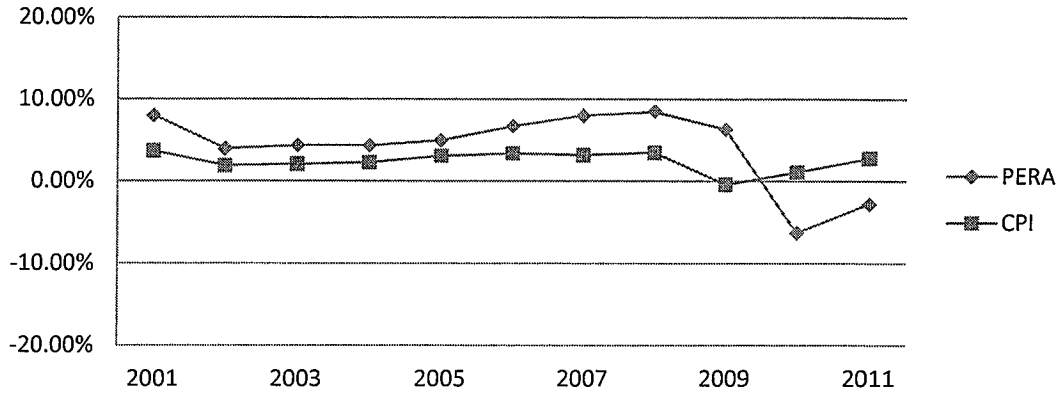
206.97% of the increase in 2004 for KPERS is attributable to pension bond proceeds.

South Census Region



**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

West Census Region



**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Funded Ratio

The funded ratio for the plans is the actuarial market value of the assets divided by the actuarial accrued liability. This amount is useful in determining the plans ability to meet future benefit payment obligations. The above plans each used similar methods of asset smoothing to reduce the effect of market fluctuations on the value of the plan assets used in the calculation of the funded ratio. The differences between actual and expected rates of investment returns per the actuarial estimates were amortized over a period of 4-5 years, depending on the plan.

Financial Reporting Date	Funded Ratio					
	2011		2010		2009	
	Ratio	Rank	Ratio	Rank	Ratio	Rank
MOSERS	77.22%	1	78.28%	2	80.67%	2
PERA	70.50%	2	78.50%	1	84.17%	1
SERS	64.40%	3	71.67%	3	67.45%	3
KPERS	61.44%	4	62.81%	4	57.99%	5
OTRS	56.70%	5	47.90%	6	49.80%	6
KERS	49.07%	6	52.54%	5	58.10%	4

Unfunded Actuarial Liability

The unfunded actuarial liability (UAL) is the difference between the actuarial accrued liability and the actuarial valuation of the assets.

Financial Reporting Date	Unfunded Actuarial Liability Ratio					
	2011		2010		2009	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
MOSERS	\$ 2,396,149	22.78%	\$ 2,222,814	21.72%	\$ 1,906,496	19.33%
PERA	5,037,935	29.50%	3,403,934	21.50%	2,392,883	15.83%
SERS	5,812,000	35.60%	4,313,000	28.33%	4,746,000	32.55%
KPERS	8,535,132	38.56%	7,993,474	37.19%	8,595,657	42.01%
OTRS	7,600,200	43.30%	10,414,000	52.10%	9,512,000	50.20%
KERS	12,382,470	50.93%	11,122,720	47.46%	9,397,289	41.90%

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Contributions

The actuarial required contribution (ARC) rate consists of a normal cost for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation and the amortization of the unfunded actuarial liability and debt service.

Although the smoothing method has allowed for much of the 2008 loss to be deferred, the portion of the loss actually recognized was so large that significant increases in the actuarial required contribution rates (ARC) could not be averted for the December 31, 2008 through December 31, 2011 valuations. The following table illustrates the change in the ARC over the past nine valuation periods (rates do not include contributions to the Death and Disability Plan):

	State*								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Normal Cost	3.37%	3.72%	3.76%	3.90%	4.13%	4.17%	4.16%	3.56%	2.60%
Amortization of UAL and Debt Service	1.84%	3.27%	3.59%	3.44%	3.26%	6.96%	5.39%	6.26%	8.20%
Actuarial Contribution Rate (ARC)	5.21%	6.99%	7.35%	7.34%	7.39%	11.13%	9.55%	9.82%	10.80%
	School*								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Normal Cost	3.95%	4.24%	4.23%	4.29%	4.61%	4.64%	4.58%	3.95%	2.91%
Amortization of UAL and Debt Service	5.80%	7.23%	7.72%	7.78%	7.87%	10.32%	10.11%	11.17%	12.50%
Actuarial Contribution Rate (ARC)	9.75%	11.47%	11.95%	12.07%	12.48%	14.96%	14.69%	15.12%	15.41%
	Local^								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Normal Cost	3.36%	3.68%	3.69%	3.86%	4.14%	4.15%	4.07%	3.48%	2.91%
Amortization of UAL and Debt Service	2.88%	4.01%	4.23%	4.26%	4.38%	6.27%	5.37%	5.95%	6.86%
Actuarial Contribution Rate (ARC)	6.24%	7.69%	7.92%	8.12%	8.52%	10.42%	9.44%	9.43%	9.77%

* - Rates are effective 2 1/2 years later. For example, the 12/31/2011 valuation establishes the rate for fiscal year 2015

^ - Rates are effective 2 years later. For example, the 12/31/2011 valuation establishes the rate for calendar year 2014

The normal cost component for each of the groups has remained fairly consistent from 2003 through 2009. The normal cost experienced decreases in 2010 and 2011 primarily due to a change in benefit provisions and actuary consultant. The amortization component experienced a sizable increase from 2003 to the 2004 valuation due to actuarial assumption changes made by the Board in September 2004. The rates stayed fairly consistent for the next three years, and then increased significantly again between 2007 and 2008. The increase from the 2007 to the 2008 valuation could be attributed to the recession and an increase in the UAL. The rates remained relatively stable in 2009 and 2010 due to positive investment return experience during the

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

economic recovery. In 2011 this trend reversed as investment return experience suffered a shortfall.

The rates illustrated in the table above represent the employer rate only. State, School and Local groups currently contribute 4.00% for Tier I employees and 6% for Tier II employees. Any fluctuations in rates over the employee's rates are the responsibility of the employer. The employer rates currently cannot increase more than 0.6% over the previous year's rate due to statutory limitations. A Sub House Bill passed in 2012 raises the employer contribution cap to 0.9% in 2014, 1.0% in 2015, 1.1% in 2016 and 1.2% in 2017 and after. The increase in the employer contribution cap is expected to provide additional contributions which will decrease the UAL and increase the funding ratio in the future.

The following table demonstrates the difference between the statutory rates and the ARC for the past nine valuation periods (rates do not include contributions to the Death and Disability Plan):

	State*			School*			Local^		
	Actuarial	Statutory	Difference	Actuarial	Statutory	Difference	Actuarial	Statutory	Difference
2003	5.21%	5.21%	0.00%	9.75%	5.77%	3.98%	6.24%	3.81%	2.43%
2004	6.99%	6.37%	0.62%	11.47%	6.37%	5.10%	7.69%	4.31%	3.38%
2005	7.35%	6.97%	0.38%	11.95%	6.97%	4.98%	7.92%	4.91%	3.01%
2006	7.34%	7.34%	0.00%	12.07%	7.57%	4.50%	8.12%	5.53%	2.59%
2007	7.39%	8.17%	-0.78%	12.48%	8.17%	4.31%	8.52%	6.14%	2.38%
2008	11.13%	8.77%	2.36%	14.96%	8.77%	6.19%	10.42%	6.74%	3.68%
2009	9.55%	9.37%	0.18%	14.69%	9.37%	5.32%	9.44%	7.34%	2.10%
2010	9.82%	9.97%	-0.15%	15.12%	9.97%	5.15%	9.43%	7.94%	1.49%
2011	10.80%	11.27%	-0.47%	15.41%	11.27%	4.14%	9.77%	8.84%	0.93%

* - Rates are effective 2 1/2 years later. For example, the 12/31/2011 valuation establishes the rate for fiscal years 2015.

^ - Rates are effective 2 years later. For example, the 12/31/2011 valuation establishes the rate for calendar year 2014.

The State statutory and actuarial employer rates have been almost equal until the 2008 valuation, which is due to the recession increasing the UAL and ultimately the ARC. Since the 2008 valuation, the statutory and actuarial employer rates have returned to being relatively equal. The School group's statutory rates have been consistently lower than the ARC. The difference between the rates for this group for the 2011 valuation is four and nine times greater than the Local and State groups, respectively. This is due to the fact that the UAL for the School Group is much higher than it is for the other two groups. The School's UAL has been significantly higher for several years and the recession made it worse starting in 2008. However during the economic recovery period the difference in rates has slowly declined from 2008 to 2011.

The State group has experienced minor differences over the past three valuation periods between the actuarial required contribution rate (ARC) and statutory rate. The Local group has seen a gradual reduction between the ARC and the statutory rate. These differences would have a minor impact on the funding ratio and the UAL. However the School group has experienced significant differences which have widened the funding ratio gap and negatively impacted the UAL.

**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

The estimated impact on the UAL for the School group since 2008 is presented below:

Year	Statutory Rate	Employer Contributions (using statutory rate)	Estimated Gross Payroll	ARC	Employer Contributions (using ARC)	Impact on Unfunded Actuarial Liability
2011	11.27%	\$ 277,502,709 @	2,462,313,301	15.41%	\$ 379,442,480	\$ 101,939,771
2010	9.97%	262,523,026 @	2,633,129,649	15.12%	398,129,203	135,606,177
2009	9.37%	242,212,045 @	2,584,973,799	14.69%	379,732,651	137,520,606
2008	8.77%	215,371,719 @	2,455,777,868	14.96%	367,384,369	152,012,650
Estimated impact on UAL						<u>\$ 527,079,204</u>

@ Amount of employer contributions per actuarial valuation report

If KPERS had contributed based upon the ARC the funding ratio for the School group at December 31, 2011 would have increased from 52.1% to 56.5%.

The amounts below detail the average annual total contributions (both employer and member) per active member for each of the systems selected for comparison.

Financial Reporting Date	Average Annual Total Contributions Per Active Member*					
	2011		2010		2009	
	Amount	Rank	Amount	Rank	Amount	Rank
OTRS	\$ 10,559	1	\$ 10,193	2	\$ 10,243	1
PERA	10,312	2	10,323	1	9,734	2
SERS	7,115	3	6,828	3	6,756	3
KERS	6,018	4	4,874	6	4,734	6
MOSERS	5,662	5	5,231	4	5,105	4
KPERS	5,503	6	5,044	5	4,896	5

The above rankings do not take into consideration differences in benefit levels.

**Total contributions includes both employer and member contributions.*

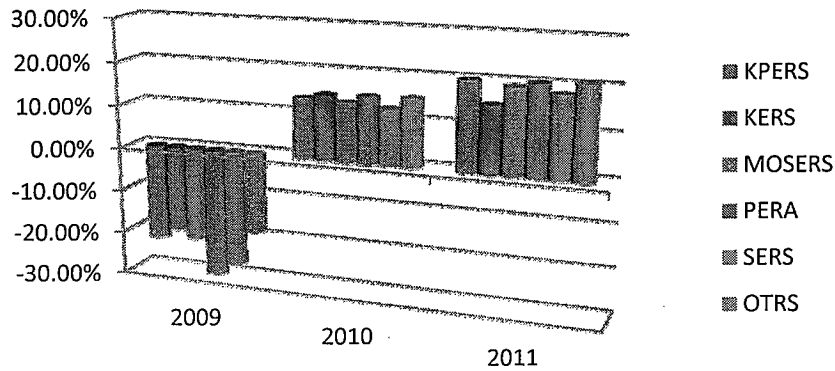
**Kansas Public Employees Retirement System
Performance Audit
June 30, 2012**

Investment Performance

The performance of each plans' investments are essential to their funding progress. The percentage of investment gains and losses shown below are measured based on the average of the plans' net assets at the beginning and end of each year. The ranking is made based on this comparison without regard to the mix of investment types.

Financial Reporting Date	2011		2010		2009	
	%	Rank	%	Rank	%	Rank
OTRS	20.81%	1	15.29%	1	(18.31)%	1
PERA	20.33%	2	15.02%	2	(29.50)%	6
KPERS	20.13%	3	13.75%	4	(21.94)%	4
MOSERS	19.26%	4	13.35%	5	(21.41)%	3
SERS	18.18%	5	12.64%	6	(26.70)%	5
KERS	15.06%	6	14.76%	3	(19.70)%	2

Investment Income (Loss)



MEMORANDUM

To: Dean Fullinwider, Audit Partner
Cochran, Head, Vick and Company

From: Alan D. Conroy, Executive Director ^{APC.}

Date: July 30, 2012

Subject: KPERS Performance Audit

As requested, we have prepared a list of public employee retirement systems that we suggest as peer systems for the purpose of the Kansas Public Employee Retirement System performance audit you will be performing. Based on our review, we would suggest selecting from among the following 10 systems:

- Arkansas Teachers Retirement System
- Colorado Public Employees Retirement Association
- Idaho Public Employees Retirement System
- Iowa Public Employee Retirement System
- Kentucky Retirement Systems
- Missouri State Employee Retirement System
- Nebraska Retirement Systems
- New Mexico Public Employees Retirement System
- Ohio School Employees Retirement System
- Oklahoma Teachers Retirement

As set out in the scope statement for the performance audit, the audit is intended to address the following question: "How has the recent economic recovery affected the Kansas Public Employees Retirement System's funding situation?" The scope statement goes on to indicate that the auditors would "compare KPERS' funded ratios, unfunded actuarial liabilities, and contribution rates of the individual groups within KPERS over a period of 5-10 years to determine the impact of investment return in recent years on KPERS' unfunded actuarial liability."

As you are aware, there is a wide range of assets, funded ratios, benefit structures, and employer contribution rates among public employee retirement systems, and therefore, each one is unique and does not provide a perfect "match" to any other system. In order to recommend other systems to you, we have considered several different factors, with regional proximity and asset size being of particular note.

We compiled a list of 21 retirement systems, including five drawn from a list of retirement systems that had been designated as peers to KPERS by CEM, Inc. as part of a recent benchmarking study, as well as systems that are in proximity to Kansas. (See Attachment A.) Additional data was gathered on each, using an annual survey by the National Association of State Retirement Administrators. The data was provided as of dates ranging from June 30, 2010, to June 30, 2011, and includes the following:



Asset market value
 Number of active members
 Number of annuitants
 Whether assets are managed externally or internally
 Whether members are covered by Social Security
 COLA features
 Multiplier used in benefit formula
 Normal retirement age
 Employee contribution rate
 Employer contribution rate
 Unfunded actuarial liability
 Funded ratio

As noted previously, we assumed that regional systems should be given particular weight. In addition, asset market value and funded ratio are of particular significance, given the focus of the scope statement on the impact of investment returns on funded status. Secondly, the number of members provide another point of comparison as to the size of the system. The following table compares the 10 recommended systems across these dimensions.

System	Market Value of Assets	Funded Ratio	Number of Active Members	Data As Of:
Arkansas Teachers Retirement System	\$9,883,574	73.80%	72,208	6/30/2010
Colorado Public Employees Retirement Association	\$37,222,014	57.70%	199,741	12/31/2011
Idaho Public Employees Retirement System	\$11,673,428	89.90%	65,798	6/30/2011
Iowa Public Employee Retirement System	\$23,082,133	79.90%	164,467	6/30/2011
Kansas	\$13,468,853	62.20%	157,919	6/30/2011
Kentucky Retirement Systems	\$10,540,442	40.30%	146,585	6/30/2010
Missouri State Employee Retirement System	\$7,866,917	79.20%	52,059	6/30/2011
Nebraska Retirement Systems	\$8,576,592	80.40%	57,554	6/30/2011
New Mexico Public Employees Retirement System	\$12,154,119	70.50%	54,189	6/30/2011
Ohio School Employees Retirement System	\$10,483,076	65.20%	125,337	6/30/2011
Oklahoma Teachers Retirement	\$10,156,357	56.70%	88,085	6/30/2011

Thank you for this opportunity to provide recommendations regarding comparable retirement systems. Please feel free to let us know if you need additional information or would like to discuss our recommendations or methodology in greater detail.

cc: Julie Pennington, Legislative Post Audit

Exhibit 2

<u>System</u>	<u>Census Region</u>	<u>Asset Market Value</u>	<u>Funded Ratio</u>	<u>Number of Members</u>	
Missouri State Employees Retirement System	Midwest	7,866,917	79.2%	52,059	A
Nebraska Retirement Systems	Midwest	8,576,592	80.4%	57,554	
Arkansas Teachers Retirement System	Midwest	9,883,574	73.8%	72,208	
Ohio School Employees Retirement System	Midwest	10,483,076	65.2%	125,337	B
Kansas Public Employees Retirement System	Midwest	13,468,853	62.2%	157,919	
Iowa Public Employees Retirement System	Midwest	23,082,133	79.9%	164,467	
Oklahoma Teachers Retirement System	South	10,156,357	56.7%	88,085	C
Kentucky Retirement Systems	South	10,540,442	40.3%	146,585	D
Idaho Public Employee Retirement System	West	11,673,428	89.9%	65,798	
New Mexico Public Employees Retirement Association	West	12,154,119	70.5%	54,189	E
Colorado Public Employees Retirement Associations	West	37,222,014	57.7%	199,741	

Purpose:

To select 5 retirement systems that are comparable to the Kansas Public Employees Retirement System based on the items below.

Census Region	Midwest
Asset Market Value	13,468,853
Funded Ratio	62.2%
Number of Members	157,919

Procedure:

CHV reviewed the above systems and used auditor judgment to determine comparable systems by incorporating the attributes described above. The engagement team determined to include systems that are in different census regions because the market value of assets and/or the funded ratio were similar to that of Kansas. The data above was sorted to best indicate which systems would be the best fit for the comparison of key financial information and ratios to the Kansas Public Employees Retirement System.

Conclusion:

After review of the above systems and selected financial information, it was determined that the best retirement systems for the purpose of the performance audit will be:

<u>System</u>	<u>Census Region</u>	<u>Asset Market Value</u>	<u>Funded Ratio</u>	<u>Number of Members</u>	
Missouri State Employees Retirement System	Midwest	7,866,917	79.2%	52,059	A
Ohio School Employees Retirement System	Midwest	10,483,076	65.2%	125,337	B
Oklahoma Teachers Retirement System	South	10,156,357	56.7%	88,085	C
Kentucky Retirement Systems	South	10,540,442	40.3%	146,585	D
New Mexico Public Employees Retirement Association	West	12,154,119	70.5%	54,189	E

Exhibit 3

Kansas Public Employee Retirement System

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
KPERS												
Asset Market Value	9,664,667	8,902,288	8,930,442	10,427,143	11,324,365	12,332,890	14,153,819	13,150,657	10,214,875	11,352,784	13,450,070	1 Retirement
Number of Active Members	151,593	153,557	147,294	148,145	147,751	149,073	151,449	153,804	156,073	160,831	157,919	K/PERS
Number of Annuitants	54,302	56,069	57,597	59,124	61,125	63,348	65,765	68,151	70,724	73,339	76,744	Tier 1
Externally or Internally Managed	External	External	External	External	External	External	External	External	External	External	External	65/1 year
Covered by Social Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	62/10 years
COLA Features	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Ad hoc	Years and Service = 85 points
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2	2	2	Tier 2 - Hired after July 1, 2009
Normal Retirement Age	1	1	1	1	1	1	1	1	1	1	1	65/5 years
Employee Contribution Rate	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	4% - 7%	60/30 years
Employer Contribution Rate	1.21 - 15.74%	1.43 - 12.88%	1.67 - 12.26%	3.22 - 16.67%	3.41 - 19.22%	3.81 - 21.97%	4.31 - 19.11%	4.93 - 22.38%	6.53 - 22.08%	6.14% - 20.5%	6.74% - 14.57%	Kansas Police & Fire
Unfunded Actuarial Liability	1,304,832	1,780,134	2,828,736	3,586,084	4,742,666	5,152,469	5,563,593	5,551,800	8,279,168	7,676,983	8,264,125	Tier 1
Funded Ratio	88.00%	85.00%	78.00%	75.00%	70.00%	69.00%	69.44%	70.80%	58.80%	64.00%	62.00%	35/20 years
	TIAA	TIAA	TIAA									Any/83 years
												Tier 2 - Hired after July 1, 1989
KPERS Death & Disability												
Asset Market Value							29,254	42,461	31,466	16,953	18,782	60/15 years
Employer Contribution Rate							3	3	3	3	3	55/20 years
Unfunded Actuarial Liability							335,426	330,161	355,060	355,060	271,007	50/25 years
Funded Ratio							5.30%	7.20%	10.90%	10.90%	4.50%	Judges
												62/10 years
Total Member Contributions	204,143	209,624	224,746	230,350	233,226	246,203	256,995	269,603	278,620	289,616	294,314	Any/ 83 points
Total Employer Contributions	193,384	221,474	231,464	714,353	293,932	352,032	398,818	458,153	485,570	521,555	574,638	Multiplier
NOT IN THOUSANDS												K/PERS
Total Market Value of Assets	9,664,667	8,902,288	8,930,442	10,427,143	11,324,365	12,332,890	14,183,073	13,193,118	10,246,341	11,369,737	13,468,832	Tier 1 & 2
Total Active Members	151,593	153,557	147,294	148,145	147,751	149,073	151,449	153,804	156,073	160,831	157,919	K/P&F
Total Annuitants	54,302	56,069	57,597	59,124	61,125	63,348	65,765	68,151	70,724	73,339	76,744	Tier 1 & 2
Total Unfunded Actuarial Liability	1,304,832	1,780,134	2,828,736	3,586,084	4,742,666	5,152,469	5,699,019	5,881,961	8,634,228	8,032,045	8,335,132	Judges
Funded Ratio	88.29%	84.84%	77.57%	75.16%	69.82%	68.76%	68.17%	69.59%	57.99%	62.81%	61.43%	5% of first 10 years, 3.5% of each additional up to 70% of FAS
												up to 70% of FAS
Total Investment Income												If hired after July 1, 1987
Total Contributions												3.3% of each year, up to 70% of FAS
												Employer Contribution
												KPERS
												2000-2004
												2005
												2006 +
												Judges
												Employee Contributions
												K/PERS
												Tier 1
												Tier 2
												K/P&F
												Judges
												4.00%
												6.00%
												7.00%
												6.00%

2-44

Exhibit 4

Kentucky Retirement System	2001	2002	2003	2004	2005	2006	2007	2008	2009
KERS - Non Hazardous									
Asset Market Value	5,484,564	5,005,191	4,929,319	5,258,995	5,362,631	5,440,133	5,773,157	5,056,969	3,584,601
Number of Active Members	47,780	48,555	49,158	47,599	47,118	46,707	47,913	48,085	46,060
Number of Annuitants	21,440	22,948	27,233	28,892	30,770	32,140	33,849	35,307	37,883
Externally or Internally Managed Covered by Social Security	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes
COLA Features	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2
Normal Retirement Age	1	1	1	1	1	1	1	1	1
Employee Contribution Rate	3	3	3	3	3	3	3	3	3
Employer Contribution Rate	5.89%	5.89%	3.76%/5.89%	5.89%	5.89%	5.89%	7.75%	8.50%	10.01%
Unfunded Actuarial Liability	(1,400,707)	(627,989)	169,144	1,049,099	2,000,389	3,600,740	4,089,157	4,810,897	5,863,938
Funded Ratio	125.70%	110.40%	97.40%	85.10%	73.60%	60.00%	56.90%	52.50%	45.00%
KERS - Hazardous									
Asset Market Value	305,544	301,800	320,513	366,568	398,308	437,030	510,775	484,438	388,951
Number of Active Members	4,228	4,211	4,189	4,014	4,274	4,320	4,349	4,393	4,334
Number of Annuitants	933	1,069	1,357	1,549	1,752	1,980	2,202	2,404	2,648
Externally or Internally Managed Covered by Social Security	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes
COLA Features	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2
Normal Retirement Age	1	1	1	1	1	1	1	1	1
Employee Contribution Rate	3	3	3	3	3	3	3	3	3
Employer Contribution Rate	18.84%	18.84%	17.6%/18.84	18.84%	18.84%	18.84%	22.00%	24.25%	24.35%
Unfunded Actuarial Liability	(76,483)	(54,315)	(29,046)	6,365	33,706	80,672	91,704	115,879	171,908
Funded Ratio	126.80%	116.90%	108.10%	98.40%	92.30%	84.10%	83.60%	81.20%	74.50%
CERS - Non Hazardous									
Asset Market Value	4,397,347	4,126,756	4,175,825	4,613,335	4,893,600	5,191,377	5,812,936	5,431,735	4,331,010
Number of Active Members	78,773	79,850	82,288	80,922	81,240	83,694	84,920	85,221	83,724
Number of Annuitants	21,706	23,296	27,092	29,129	31,347	33,102	35,564	37,759	39,756
Externally or Internally Managed Covered by Social Security	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes
COLA Features	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2
Normal Retirement Age	1	1	1	1	1	1	1	1	1
Employee Contribution Rate	3	3	3	3	3	3	3	3	3
Employer Contribution Rate	6.34%	6.34%	6.34%	7.34%	8.48%	10.98%	13.19%	16.17%	13.50%
Unfunded Actuarial Liability	(1,717,552)	(1,232,432)	(868,982)	(251,392)	325,948	1,016,675	1,191,622	1,572,715	2,262,124
Funded Ratio	146.30%	129.60%	119.70%	105.10%	94.00%	83.50%	82.10%	78.50%	71.40%
CERS - Hazardous									
Asset Market Value	1,211,155	1,144,349	1,168,776	1,305,012	1,411,246	1,528,845	1,754,935	1,644,982	1,320,560
Number of Active Members	8,586	8,949	9,286	9,349	9,464	9,635	10,063	10,173	9,757
Number of Annuitants	3,004	3,246	3,737	4,005	4,361	4,712	5,159	5,422	5,808
Externally or Internally Managed Covered by Social Security	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes
COLA Features	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2
Normal Retirement Age	1	1	1	1	1	1	1	1	1
Employee Contribution Rate	3	3	3	3	3	3	3	3	3
Employer Contribution Rate	16.28%	16.28%	16.28%	18.51%	22.08%	25.01%	28.21%	33.87%	29.50%
Unfunded Actuarial Liability	(292,806)	(158,221)	32,624	183,218	343,264	505,067	569,447	652,255	826,957
Funded Ratio	124.50%	111.90%	97.80%	98.80%	80.90%	75.00%	74.20%	72.90%	67.90%
SPRS									
Asset Market Value	364,592	328,744	319,115	335,721	339,406	352,841	376,381	337,359	256,575
Number of Active Members	1,016	1,002	1,019	999	987	1,028	957	993	946
Number of Annuitants	767	819	941	992	1,036	1,067	1,105	1,135	1,184
Externally or Internally Managed Covered by Social Security	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes	External Yes
COLA Features	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%	CPI, Max of 5%
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2
Normal Retirement Age	1	1	1	1	1	1	1	1	1
Employee Contribution Rate	3	3	3	3	3	3	3	3	3
Employer Contribution Rate	21.58%	21.58%	17.37%	21.58%	21.58%	21.58%	25.50%	28.00%	33.07%
Unfunded Actuarial Liability	(99,949)	(58,165)	1,818	52,405	105,082	172,466	199,149	236,238	272,362
Funded Ratio	128.10%	115.30%	99.60%	88.00%	77.10%	66.60%	63.70%	59.80%	54.80%
Member Contributions	250,239	286,822	314,855	306,652	310,806	275,904	300,280	304,259	290,842
Employer Contributions	105,522	26,260	43,661	104,288	157,508	216,538	293,442	350,435	393,849
Total Market Value of Assets	11,763,202	10,906,840	10,913,548	11,879,631	12,405,191	12,950,226	14,228,184	12,955,483	9,881,697
Total Active Members	140,383	142,567	145,940	142,883	143,083	145,384	148,202	148,865	144,821
Total Annuitants	47,850	51,378	60,360	64,567	69,266	73,001	77,879	82,027	87,279
Total Unfunded Actuarial Liability	(3,587,497)	(2,131,122)	(694,442)	1,039,695	2,808,389	5,375,620	6,141,079	7,387,984	9,397,289
Funded Ratio	132.66%	117.44%	105.26%	92.81%	82.06%	70.50%	68.44%	64.89%	58.10%
Total Investment Income									(2,250,000)
Total Contributions									685,590

Exhibit 4

Kentucky Retirement System		2010	2011	
KERS - Non Hazardous				
Asset Market Value		3,504,501	3,544,242	
Number of Active Members		47,090	46,617	
Number of Annuitants		37,945	38,597	
Externally or Internally Managed		External	External	
Covered by Social Security		Yes	Yes	
COLA Features		CPI, Max of 1.5%	CPI, Max of 1.5%	
Multiplier used in Benefit Formula		2	2	
Normal Retirement Age		1	1	
Employee Contribution Rate		3	3	
Employer Contribution Rate		11.61%	16.98%	
Unfunded Actuarial Liability		6,794,580	7,455,156	
Funded Ratio		38.30%	33.30%	
KERS - Hazardous				
Asset Market Value		443,606	511,085	
Number of Active Members		4,291	4,291	
Number of Annuitants		2,835	3,064	
Externally or Internally Managed		External	External	
Covered by Social Security		Yes	Yes	
COLA Features		CPI, Max of 1.5%	CPI, Max of 1.5%	
Multiplier used in Benefit Formula		2	2	
Normal Retirement Age		1	1	
Employee Contribution Rate		3	3	
Employer Contribution Rate		24.69%	26.12%	
Unfunded Actuarial Liability		185,420	210,545	
Funded Ratio		73.10%	70.80%	
CERS - Non Hazardous				
Asset Market Value		4,820,490	5,583,451	
Number of Active Members		84,681	85,285	
Number of Annuitants		41,038	43,211	
Externally or Internally Managed		External	External	
Covered by Social Security		Yes	Yes	
COLA Features		CPI, Max of 1.5%	CPI, Max of 1.5%	
Multiplier used in Benefit Formula		2	2	
Normal Retirement Age		1	1	
Employee Contribution Rate		3	3	
Employer Contribution Rate		16.16%	16.93%	
Unfunded Actuarial Liability		2,912,165	3,288,474	
Funded Ratio		65.60%	63.10%	
CERS - Hazardous				
Asset Market Value		1,506,894	1,761,858	
Number of Active Members		9,562	9,407	
Number of Annuitants		6,068	6,468	
Externally or Internally Managed		External	External	
Covered by Social Security		Yes	Yes	
COLA Features		CPI, Max of 1.5%	CPI, Max of 1.5%	
Multiplier used in Benefit Formula		2	2	
Normal Retirement Age		1	1	
Employee Contribution Rate		3	3	
Employer Contribution Rate		32.97%	33.25%	
Unfunded Actuarial Liability		922,687	1,079,496	
Funded Ratio		65.50%	62.20%	
SPRS				
Asset Market Value		264,949	279,927	
Number of Active Members		961	965	
Number of Annuitants		1,223	1,263	
Externally or Internally Managed		External	External	
Covered by Social Security		Yes	Yes	
COLA Features		CPI, Max of 1.5%	CPI, Max of 1.5%	
Multiplier used in Benefit Formula		2	2	
Normal Retirement Age		1	1	
Employee Contribution Rate		3	3	
Employer Contribution Rate		33.08%	45.54%	
Unfunded Actuarial Liability		307,868	348,799	
Funded Ratio		49.70%	45.00%	
Member Contributions		249,775	326,842	
Employer Contributions		461,161	548,126	
Summary				
Total Market Value of Assets		10,540,440	11,680,563	
Total Active Members		146,585	146,565	
Total Annuitants		89,109	92,603	
Total Unfunded Actuarial Liability		11,122,720	12,382,470	
Funded Ratio		52.54%	49.07%	
Total Investment Income		1,507,544	1,902,223	
Total Contributions		714,384	882,054	

Exhibit 5

Missouri State Employee Retirement System	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
MSEP											
Asset Market Value	5,192,961	5,024,517	5,190,419	5,859,487	6,431,033	6,983,738	8,056,094	7,934,030	6,165,087	6,727,623	7,768,709
Number of Active Members	38,431	38,616	37,558	35,914	35,944	34,493	34,363	34,542	35,057	35,478	35,660
Number of Annuitants	20,237	21,502	22,872	24,757	25,780	27,052	28,692	30,132	31,637	33,251	35,315
Externally or Internally Managed Covered by Social Security	External	External	External	External	External	External	External	External	External	External	External
COLA Features	1	1	1	1	1	1	1	1	1	1	1
Multiplier used in Benefit Formula	3	3	3	3	3	3	3	3	3	3	3
Normal Retirement Age	2	2	2	2	2	2	2	2	2	2	2
Employee Contribution Rate	4	4	4	4	4	4	4	4	4	4	4
Employer Contribution Rate	11.39%	11.39%	8.81%	9.35%	10.64%	12.59%	12.78%	12.84%	12.33%	12.75%	13.81%
Unfunded Actuarial Liability	183,934	261,139	604,902	1,111,796	1,142,684	1,176,638	1,123,139	1,289,832	1,618,727	1,929,778	2,101,063
Funded Ratio	97.00%	95.90%	90.90%	84.60%	84.90%	85.30%	86.80%	85.90%	83.00%	80.40%	79.20%
Judicial											
Asset Market Value	20,691	25,129	30,902	39,705	48,534	57,729	72,181	77,341	65,920	78,554	98,208
Number of Active Members	381	392	392	391	392	394	400	401	397	402	399
Number of Annuitants	381	383	393	397	397	398	437	440	463	465	486
Externally or Internally Managed Covered by Social Security	External	External	External	External	External	External	External	External	External	External	External
COLA Features	1	1	1	1	1	1	1	1	1	1	1
Multiplier used in Benefit Formula	3	3	3	3	3	3	3	3	3	3	3
Normal Retirement Age	5	5	5	5	5	5	5	5	5	5	5
Employee Contribution Rate	4	4	4	4	4	4	4	4	4	4	4
Employer Contribution Rate	55.30%	55.30%	52.12%	51.68%	54.51%	55.76%	58.48%	58.65%	60.07%	58.48%	60.03%
Unfunded Actuarial Liability	223,366	226,464	232,483	241,277	248,080	257,350	264,763	281,602	287,769	293,036	295,086
Funded Ratio	9.10%	11.60%	12.90%	14.00%	15.10%	16.70%	19.00%	20.60%	22.00%	23.30%	25.00%
ALJLAP											
Asset Market Value	13,288	12,636	13,465	15,738							
Number of Active Members	57	58	57	57							
Number of Annuitants	24	25	27	25							
Externally or Internally Managed Covered by Social Security	External	External	External	External							
COLA Features	1	1	1	1							
Multiplier used in Benefit Formula	3	3	3	3							
Normal Retirement Age	62/12, 60/15, 55/2062/12, 60/15, 55/2062/12, 60/15, 55/20										
Employee Contribution Rate	0.00%	0.00%	0.00%	0.00%							
Employer Contribution Rate	22.32%	22.32%	20.02%	20.12%							
Unfunded Actuarial Liability	2,399	3,003	4,320	4,145							
Funded Ratio	85.70%	83.50%	78.30%	79.70%							

NOTE: The ALJLAP was merged with MSEP during FY 05.

Member Contribution	62/12	60/15	55/20
State Contribution	660	291,121	5570
Total Market Value of Assets	7,866,917	6,806,177	54,943
Total Active Members	52,059	53,880	35,801
Total Annuitants	35,801	33,716	2,396,149
Total Unfunded Actuarial Liability	2,396,149	2,222,814	77,222%
Funded Ratio	77.22%	78.28%	83.45%
Total Investment Income	1,413,137	869,808	1,413,137
Total Contributions	294,737	281,842	283,095

Exhibit 6

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
New Mexico Public Employees Retirement System												
PERA												
Asset Market Value	7,999,047	7,824,830	8,084,949	9,287,742	10,119,070	11,215,016	13,111,049	11,936,716	8,795,819	10,016,491	11,994,455	1
Number of Active Members	43,386	44,141	44,070	42,256	47,799	51,645	52,307	52,307	53,866	49,202	48,103	Retirement 65/5 years any/25
Externally or Internally Managed Covered by Social Security	18,149	18,817	19,728	20,858	21,528	22,699	23,844	24,910	25,950	27,249	28,691	Certain Police and Fire can retire with 20 years of service Retirement between 60 and 65 with varying amounts of service State Legislative can retire at any w/ 14 years
COLA Features	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	Hired after July 1, 2010
Normal Retirement Age	2	2	2	2	2	2	2	2	2	2	2	Any/50 - General employee only
Employee Contribution Rate	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	Any/ rule of 80
Employer Contribution Rate	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%	67/5+ years
Unfunded Actuarial Liability												2
Funded Ratio												
Judicial												
Asset Market Value	57,521	55,154	55,440	65,787	70,590	77,415	89,898	81,716	60,968	66,370	78,826	3
Number of Active Members	86	86	84	104	106	110	117	115	125	121	114	Retirement 64/5 years
Number of Annuitants	78	79	87	88	89	97	97	105	109	110	116	Hired after July 1, 2005
Externally or Internally Managed Covered by Social Security	External	External	External	External	External	External	External	External	External	External	External	55/16 years
COLA Features	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	Multiplier
Normal Retirement Age	4	4	4	4	4	4	4	4	4	4	4	FAS (last 12 months salary received) X 37.5%-75% depending on years of service
Employee Contribution Rate	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	
Employer Contribution Rate	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	12.00%	12.00%	10.50%	12.00%	
Unfunded Actuarial Liability												
Funded Ratio												
Magistrate												
Asset Market Value	29,240	28,765	29,659	30,202	32,365	35,395	40,625	36,333	26,270	28,876	33,198	5
Number of Active Members	61	63	67	50	50	52	52	45	54	46	45	Retirement 64/5 years
Number of Annuitants	6	6	46	44	44	48	55	56	61	69	78	Any/24
Externally or Internally Managed Covered by Social Security	External	External	External	External	External	External	External	External	External	External	External	Multiplier
COLA Features	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	75% of salary during last year X (5% of the # of years of service, not to exceed 15) + 5 years
Normal Retirement Age	5	5	5	5	5	5	5	5	5	5	5	
Employee Contribution Rate	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	7.50%	7.50%	9.00%	9.00%	
Employer Contribution Rate	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	11.00%	11.00%	9.50%	9.50%	
Unfunded Actuarial Liability												
Funded Ratio												
Volunteer Fire												
Asset Market Value	27,048	26,715	28,208	33,058	36,670	41,370	48,967	45,209	34,036	38,939	47,641	7
Number of Active Members	5,170	5,176	5,362	5,274	6,282	5,804	5,638	4,216	4,283	5,422	5,867	\$100 monthly, 10-25 years \$200 monthly, 25+ years
Number of Annuitants	200	216	234	272	298	343	388	435	470	544	609	
Externally or Internally Managed Covered by Social Security	External	External	External	External	External	External	External	External	External	External	External	
COLA Features	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Normal Retirement Age	7	7	7	7	7	7	7	7	7	7	7	
Employee Contribution Rate	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	55/10 years	
Employer Contribution Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Unfunded Actuarial Liability												
Funded Ratio												
Member Contributions												
Employer Contributions	136,134	141,428	147,158	152,172	161,354	170,708	213,565	223,923	244,318	262,469	254,339	
Total	199,986	207,931	216,973	226,432	237,730	253,743	274,113	297,381	316,140	296,208	288,095	
Total Market Value of Assets												
Total Active Members	8,112,856	7,935,462	8,198,256	9,416,789	10,258,695	11,369,196	13,290,539	12,009,974	8,917,093	10,150,676	12,154,120	
Total Annuitants	48,703	49,466	49,583	47,684	54,237	57,663	56,883	58,328	58,328	54,189	54,189	
Total Unfunded Actuarial Liability	18,463	19,149	20,095	21,262	21,959	23,187	24,384	25,366	26,590	27,972	29,496	
Funded Ratio	103.37%	103.08%	97.308%	93.03%	91.59%	92.12%	92.96%	93.39%	81.17%	78.50%	70.50%	
Total Investment Income									(3,100,426)	1,432,284	2,267,811	
Total Contributions									567,745	565,616	558,812	

Exhibit 7

Ohio School Employees Retirement System

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Pension Trust Fund												
Asset Market Value	7,861,022	7,091,939	7,096,479	8,133,054	8,866,130	9,833,949	11,546,062	10,646,564	8,024,889	8,953,363	10,483,076	1 Retirement Tier 1
Asset Market Value - Med B	128,692	111,154	103,481	111,222	114,697	124,178	139,903	124,627	93,244	101,513	116,849	60/5 years
Asset Market Value - Death Benefits	23,610	20,340	18,897	20,307	20,759	22,076	25,271	22,279	17,974	17,054	19,250	55/25 years
Number of Active Members	115,684	120,254	122,315	123,139	122,855	123,266	123,013	124,370	125,465	126,015	125,337	any/30 years
Number of Annuitants	58,795	59,349	59,999	60,569	61,433	62,521	63,529	64,818	65,757	66,127	67,221	Tier 2 - After May 14, 2008
Externally or Internally Managed	External	External	External	External	External	External	External	External	External	External	External	62/10 years
Covered by Social Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	60/25 years
COLA Features	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	55/30 years
Multiplier used in Benefit Formula	2	2	2	2	2	2	2	2	2	2	2	
Normal Retirement Age	9.00%	9.00%	9.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	2 Multiplier
Employee Contribution Rate	4.20%	5.46%	8.17%	9.09%	10.57%	10.58%	10.68%	9.82%	9.06%	13.54%	12.57%	2.2% of service years up to 30
Employer Contribution Rate	473,000	1,264,000	2,034,000	2,765,000	3,257,000	3,266,000	2,663,000	2,690,000	4,746,000	4,313,000	5,812,000	2.5% of service years over 30
Unfunded Actuarial Liability	94.97%	87.70%	81.39%	76.06%	73.44%	74.74%	79.98%	80.87%	67.45%	71.67%	64.40%	
Funded Ratio	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	
Member Contribution												
Pension	192,563	210,098	225,015	238,131	262,266	272,616	276,759	284,910	295,789	301,650	303,114	
Med B	-	-	-	-	-	-	-	-	-	-	-	
Death Benefits	-	-	-	-	-	-	-	-	-	-	-	
Total	192,563	210,098	225,015	238,131	262,266	272,616	276,759	284,910	295,789	301,650	303,114	
Employer Contribution												
Pension	90,091	102,321	182,920	213,737	255,633	234,875	232,846	259,395	268,646	378,202	355,959	
Med B	3,667	16,179	15,610	17,390	17,735	20,536	18,451	18,377	21,688	22,620	22,173	
Death Benefits	650	456	472	744	759	1,054	1,071	835	735	1,226	1,167	
Total	94,408	118,956	199,002	231,871	274,127	256,465	252,368	278,607	291,069	402,048	379,299	
Total Market Value of Assets												
Total Active Members	8,013,324	7,223,433	7,218,857	8,264,583	9,001,586	9,980,203	11,711,236	10,793,470	8,134,107	9,071,930	10,619,175	
Total Annuitants	115,684	120,254	122,315	123,139	122,855	123,266	123,013	124,370	125,465	126,015	125,337	
Total Unfunded Actuarial Liability	58,795	59,349	59,999	60,569	61,433	62,521	63,529	64,818	65,757	66,127	67,221	
Funded Ratio	473,000	1,264,000	2,034,000	2,765,000	3,257,000	3,266,000	2,663,000	2,690,000	4,746,000	4,313,000	5,812,000	
	94.97%	87.70%	81.39%	76.06%	73.44%	74.74%	79.98%	80.87%	67.45%	71.67%	64.40%	
Total Investment Income												
Total Contributions									(2,526,407)	1,087,495	1,789,851	
									847,669	860,422	891,711	

2-49

Exhibit 8

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	1	2
Oklahoma Teachers Retirement													
Oklahoma 401(c)													
Asset Market Value	-	-	-	6,666,490	7,238,077	7,858,937	9,293,201	8,633,699	7,226,885	8,351,966	10,156,357	Hired before July 1, 1992	Retirement
Number of Active Members	-	-	-	81,683	84,286	87,194	88,133	88,678	89,388	89,896	88,085	Rule of 80	Hired after July 1, 1992
Number of Annuitants	-	-	-	39,593	40,879	41,782	43,506	45,238	46,796	48,756	50,829	Rule of 90	62/5 years
Externally or Internally Managed Covered by Social Security				External	External	External	External	External	External	External	External	Yes	COLA
COLA Features				2	2	2	2	2	2	2	2	Yes	Requires legislative approval and funding must be provided
Multiplier used in Benefit Formula				2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Normal Retirement Age				1	1	1	1	1	1	1	1	1	
Employer Contribution Rate				7.05%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
Employee Contribution Rate				3.75%	4.00%	4.00%	4.30%	5.00%	5.00%	5.00%	5.00%	5.00%	
Dedicated tax - sales					1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Dedicated tax - Cigarette					5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	
Dedicated tax - Lottery													
Unfunded Actuarial Liability	5,632,100	5,965,000	5,488,300	7,419,200	7,099,700	7,672,900	9,090,100	9,512,000	10,414,000	10,414,000	7,600,200		
Funded Ratio	51.40%	51.40%	54.00%	47.30%	49.50%	49.30%	52.60%	50.50%	49.80%	47.90%	56.70%		
Member Contributions				233,121,332	235,048,239	248,961,068	285,408,749	286,738,943	288,238,426	290,247,028	286,643,244		
Employer Contributions				219,126,867	227,791,719	241,174,959	271,012,403	308,804,479	338,974,512	366,282,238	364,025,589		
Member tax shelter				5,197,621	6,410,810	7,625,919	8,883,033	8,922,095	8,678,472	5,402,646	5,010,856		
Matching Funds				13,042,555	14,047,582	16,094,158	21,402,183	21,274,957	22,652,221	26,448,892	23,128,795		
Dedicated tax				143,100,553	163,919,337	202,200,424	243,501,987	266,761,597	257,019,830	227,926,247	251,322,410		
Total Market Value of Assets				6,666,490	7,238,077	7,858,937	9,293,201	8,633,699	7,226,885	8,351,966	10,156,357		
Total Active Members				81,683	84,286	87,194	88,133	88,678	89,388	89,896	88,085		
Total Annuitants				39,593	40,879	41,782	43,506	45,238	46,796	48,756	50,829		
Total Unfunded Actuarial Liability	5,632,100	5,965,000	5,488,300	7,419,200	7,099,700	7,672,900	9,090,100	9,512,000	10,414,000	10,414,000	7,600,200		
Funded Ratio	51.40%	51.40%	54.00%	47.30%	49.50%	49.30%	52.60%	50.50%	49.80%	47.90%	56.70%		
Total Investment Income				6,951,778	7,540,964	8,175,345	9,651,042	8,945,859	7,452,193	1,191,267	1,925,637		
Total Contributions				(285,288)	(302,887)	(316,408)	(357,841)	(312,160)	(225,308)	916,307	930,131		
				6,666,490	7,238,077	7,858,937	9,293,201	8,633,699	7,226,885				

Note: In the 2010 and 2011, the system listed the 401(c) plan and 403(b) plan separately on the financial statements. Before 2010 the amounts were combined but the 403(b) plan assets were disclosed in the notes. The amount disclosed was subtracted from the net assets for the years combined.

Exhibit 9

Kansas Public Employees Retirement System Combined Actuarial Information

	Actuarial Value	AAL	UAAL	Funded Ratio
2011				
KPERS	\$ 13,589,658	\$ 21,853,783	\$ 8,264,125	62.18%
Death & Disability	12,751	283,758	271,007	4.49%
	<u>13,602,409</u>	<u>22,137,541</u>	<u>8,535,132</u>	<u>61.44%</u>
2010				
KPERS	13,461,221	21,138,206	7,676,985	63.68%
Death & Disability	38,571	355,060	316,489	10.86%
	<u>13,499,792</u>	<u>21,493,266</u>	<u>7,993,474</u>	<u>62.81%</u>
2009				
KPERS	11,827,619	20,106,787	8,279,168	58.82%
Death & Disability	38,571	355,060	316,489	10.86%
	<u>11,866,190</u>	<u>20,461,847</u>	<u>8,595,657</u>	<u>57.99%</u>
2008				
KPERS	13,433,115	18,984,915	5,551,800	70.76%
Death & Disability	25,568	355,729	330,161	7.19%
	<u>13,458,683</u>	<u>19,340,644</u>	<u>5,881,961</u>	<u>69.59%</u>
2007				
KPERS	12,189,197	17,552,790	5,363,593	69.44%
Death & Disability	18,724	354,150	335,426	5.29%
	<u>12,207,921</u>	<u>17,906,940</u>	<u>5,699,019</u>	<u>68.17%</u>
2006				
KPERS	11,339,293	16,491,762	5,152,469	68.76%
Death & Disability	-	-	-	
	<u>11,339,293</u>	<u>16,491,762</u>	<u>5,152,469</u>	<u>68.76%</u>
2005				
KPERS	10,971,427	15,714,092	4,742,665	69.82%
Death & Disability	-	-	-	
	<u>10,971,427</u>	<u>15,714,092</u>	<u>4,742,665</u>	<u>69.82%</u>
2004				
KPERS	10,853,462	14,439,546	3,586,084	75.16%
Death & Disability	-	-	-	
	<u>10,853,462</u>	<u>14,439,546</u>	<u>3,586,084</u>	<u>75.16%</u>
2003				
KPERS	9,784,862	12,613,599	2,828,737	77.57%
Death & Disability	-	-	-	
	<u>9,784,862</u>	<u>12,613,599</u>	<u>2,828,737</u>	<u>77.57%</u>
2002				
KPERS	9,962,918	11,743,052	1,780,134	84.84%
Death & Disability	-	-	-	
	<u>9,962,918</u>	<u>11,743,052</u>	<u>1,780,134</u>	<u>84.84%</u>
2001				
KPERS	9,835,182	11,140,014	1,304,832	88.29%
Death & Disability	-	-	-	
	<u>9,835,182</u>	<u>11,140,014</u>	<u>1,304,832</u>	<u>88.29%</u>

Exhibit 10

Kentucky Retirement System Combined Actuarial Information

		Actuarial Asset	AAL	UAAL	Funded Ratio
	2011				
KERS		\$ 4,237,735	\$ 11,903,435	\$ 7,665,700	35.60%
CERS		7,409,156	11,777,126	4,367,970	62.91%
SPRS		285,581	634,379	348,798	45.02%
		<u>11,932,472</u>	<u>24,314,940</u>	<u>12,382,468</u>	<u>49.07%</u>
	2010				
KERS		4,712,945	11,692,945	6,980,000	40.31%
CERS		7,296,322	11,131,174	3,834,852	65.55%
SPRS		304,577	612,445	307,868	49.73%
		<u>12,313,844</u>	<u>23,436,564</u>	<u>11,122,720</u>	<u>52.54%</u>
	2009				
KERS		5,297,115	11,332,961	6,035,846	46.74%
CERS		7,402,278	10,491,358	3,089,080	70.56%
SPRS		329,967	602,329	272,362	54.78%
		<u>13,029,360</u>	<u>22,426,648</u>	<u>9,397,288</u>	<u>58.10%</u>
	2008				
KERS		5,820,925	10,747,701	4,926,776	54.16%
CERS		7,482,370	9,707,340	2,224,970	77.08%
SPRS		350,891	587,129	236,238	59.76%
		<u>13,654,186</u>	<u>21,042,170</u>	<u>7,387,984</u>	<u>64.89%</u>
	2007				
KERS		5,864,070	10,044,932	4,180,862	58.38%
CERS		7,107,113	8,868,182	1,761,069	80.14%
SPRS		348,807	547,955	199,148	63.66%
		<u>13,319,990</u>	<u>19,461,069</u>	<u>6,141,079</u>	<u>68.44%</u>
	2006				
KERS		5,822,071	9,503,482	3,681,411	61.26%
CERS		6,677,969	8,199,712	1,521,743	81.44%
SPRS		344,016	516,482	172,466	66.61%
		<u>12,844,056</u>	<u>18,219,676</u>	<u>5,375,620</u>	<u>70.50%</u>
	2005				
KERS		5,983,974	8,018,069	2,034,095	74.63%
CERS		6,511,562	7,180,774	669,212	90.68%
SPRS		353,512	458,594	105,082	77.09%
		<u>12,849,048</u>	<u>15,657,437</u>	<u>2,808,389</u>	<u>82.06%</u>
	2004				
KERS		6,397,727	7,453,191	1,055,464	85.84%
CERS		6,645,464	6,577,290	(68,174)	101.04%
SPRS		385,077	437,482	52,405	88.02%
		<u>13,428,268</u>	<u>14,467,963</u>	<u>1,039,695</u>	<u>92.81%</u>
	2003				
KERS		6,737,245	6,877,342	140,097	97.96%
CERS		6,753,585	5,917,227	(836,358)	114.13%
SPRS		413,064	414,881	1,817	99.56%
		<u>13,903,894</u>	<u>13,209,450</u>	<u>(694,444)</u>	<u>105.26%</u>
	2002				
KERS		7,030,468	6,348,164	(682,304)	110.75%
CERS		6,883,299	5,492,646	(1,390,653)	125.32%
SPRS		438,955	380,790	(58,165)	115.27%
		<u>14,352,722</u>	<u>12,221,600</u>	<u>(2,131,122)</u>	<u>117.44%</u>
	2001				
KERS		7,206,420	5,729,229	(1,477,191)	125.78%
CERS		6,910,501	4,900,143	(2,010,358)	141.03%
SPRS		456,161	356,212	(99,949)	128.06%
		<u>14,573,082</u>	<u>10,985,584</u>	<u>(3,587,498)</u>	<u>132.66%</u>
	2000				
KERS		7,142,889	5,120,191	(2,022,698)	139.50%
CERS		6,729,576	4,453,155	(2,276,421)	151.12%
SPRS		459,169	336,580	(122,589)	136.42%
		<u>14,331,634</u>	<u>9,909,926</u>	<u>(4,421,708)</u>	<u>144.62%</u>

Exhibit 11

Missouri State Employee Retirement System Combined Actuarial Information

	Actuarial Value	AAL	UAAL	Funded Ratio
2011				
MSEP	\$ 8,022,481	\$ 10,123,544	\$ 2,101,063	79.25%
Judicial	98,399	393,485	295,086	25.01%
ALJLAP	-	-	-	
	<u>8,120,880</u>	<u>10,517,029</u>	<u>2,396,149</u>	<u>77.22%</u>
2010				
MSEP	7,923,377	9,853,155	1,929,778	80.41%
Judicial	88,977	382,013	293,036	23.29%
ALJLAP	-	-	-	
	<u>8,012,354</u>	<u>10,235,168</u>	<u>2,222,814</u>	<u>78.28%</u>
2009				
MSEP	7,876,079	9,494,807	1,618,728	82.95%
Judicial	81,338	369,107	287,769	22.04%
ALJLAP	-	-	-	
	<u>7,957,417</u>	<u>9,863,914</u>	<u>1,906,497</u>	<u>80.67%</u>
2008				
MSEP	7,838,496	9,128,347	1,289,851	85.87%
Judicial	73,194	354,796	281,602	20.63%
ALJLAP	-	-	-	
	<u>7,911,690</u>	<u>9,483,143</u>	<u>1,571,453</u>	<u>83.43%</u>
2007				
MSEP	7,377,289	8,500,429	1,123,140	86.79%
Judicial	61,904	326,666	264,762	18.95%
ALJLAP	-	-	-	
	<u>7,439,193</u>	<u>8,827,095</u>	<u>1,387,902</u>	<u>84.28%</u>
2006				
MSEP	6,836,567	8,013,205	1,176,638	85.32%
Judicial	51,653	309,003	257,350	16.72%
ALJLAP	-	-	-	
	<u>6,888,220</u>	<u>8,322,208</u>	<u>1,433,988</u>	<u>82.77%</u>
2005				
MSEP	6,435,344	7,578,028	1,142,684	84.92%
Judicial	44,224	292,304	248,080	15.13%
ALJLAP	-	-	-	
	<u>6,479,568</u>	<u>7,870,332</u>	<u>1,390,764</u>	<u>82.33%</u>
2004				
MSEP	6,118,214	7,230,011	1,111,797	84.62%
Judicial	39,120	280,397	241,277	13.95%
ALJLAP	16,239	20,384	4,145	79.67%
	<u>6,173,573</u>	<u>7,530,792</u>	<u>1,357,219</u>	<u>81.98%</u>
2003				
MSEP	6,057,329	6,662,291	604,962	90.92%
Judicial	34,567	267,050	232,483	12.94%
ALJLAP	15,626	19,946	4,320	78.34%
	<u>6,107,522</u>	<u>6,949,287</u>	<u>841,765</u>	<u>87.89%</u>
2002				
MSEP	6,033,134	6,294,272	261,138	95.85%
Judicial	29,651	256,115	226,464	11.58%
ALJLAP	15,173	18,175	3,002	83.48%
	<u>6,077,958</u>	<u>6,568,562</u>	<u>490,604</u>	<u>92.53%</u>
2001				
MSEP	5,881,233	6,065,167	183,934	96.97%
Judicial	22,613	247,979	225,366	9.12%
ALJLAP	14,410	16,810	2,400	85.72%
	<u>5,918,256</u>	<u>6,329,956</u>	<u>411,700</u>	<u>93.50%</u>
2000				
MSEP	5,511,715	5,920,684	408,969	93.09%
Judicial	13,862	241,797	227,935	5.73%
ALJLAP	13,192	16,522	3,330	79.85%
	<u>5,538,769</u>	<u>6,179,003</u>	<u>640,234</u>	<u>89.64%</u>

Exhibit 12

New Mexico Public Employees Retirement System Combined Actuarial Information

	Actuarial Value	AAL	UAAL	Funded Ratio
2011				
PERA	\$ 11,855,217	\$ 16,826,392	\$ 4,971,175	70.46%
PERA - Leg	23,508	26,347	2,839	89.22%
Judicial	78,199	139,709	61,510	55.97%
Magistrate	33,121	55,429	22,308	59.75%
Volunteer Fire	47,005	27,108	(19,897)	173.40%
	<u>12,037,050</u>	<u>17,074,985</u>	<u>5,037,935</u>	<u>70.50%</u>
2010				
PERA	12,243,713	15,601,461	3,357,748	78.48%
Legislative	22,125	26,675	4,550	82.94%
Judicial	79,645	130,136	50,491	61.20%
Magistrate	34,652	52,677	18,025	65.78%
Volunteer Fire	47,346	20,466	(26,880)	231.34%
	<u>12,427,481</u>	<u>15,831,415</u>	<u>3,403,934</u>	<u>78.50%</u>
2009				
PERA	12,575,142	14,932,624	2,357,482	84.21%
Judicial	73,161	120,841	47,680	60.54%
Magistrate	31,524	47,568	16,044	66.27%
Volunteer Fire	48,192	19,869	(28,323)	242.55%
	<u>12,728,019</u>	<u>15,120,902</u>	<u>2,392,883</u>	<u>84.17%</u>
2008				
PERA	12,836,217	13,761,750	925,533	93.27%
Judicial	87,430	111,721	24,291	78.26%
Magistrate	38,866	41,721	2,855	93.16%
Volunteer Fire	48,438	16,946	(31,492)	285.84%
	<u>13,010,951</u>	<u>13,932,138</u>	<u>921,187</u>	<u>93.39%</u>
2007				
PERA	12,049,358	12,982,072	932,714	92.82%
Judicial	82,570	104,040	21,470	79.36%
Magistrate	37,242	36,964	(278)	100.75%
Volunteer Fire	44,961	16,536	(28,425)	271.90%
	<u>12,214,131</u>	<u>13,139,612</u>	<u>925,481</u>	<u>92.96%</u>
2006				
PERA	10,863,895	11,800,861	936,966	92.06%
Judicial	74,003	95,216	21,213	77.72%
Magistrate	33,694	33,362	(332)	101.00%
Volunteer Fire	39,512	23,743	(15,769)	166.42%
	<u>11,011,104</u>	<u>11,953,182</u>	<u>942,078</u>	<u>92.12%</u>
2005				
PERA	10,008,511	10,920,967	912,456	91.64%
Judicial	68,781	87,175	18,394	78.90%
Magistrate	33,121	55,429	22,308	59.75%
Volunteer Fire	47,005	27,108	(19,897)	173.40%
	<u>10,157,418</u>	<u>11,090,679</u>	<u>933,261</u>	<u>91.59%</u>
2004				
PERA	9,275,676	9,973,755	698,079	93.00%
Judicial	66,209	87,620	21,411	75.56%
Magistrate	30,072	30,195	123	99.59%
Volunteer Fire	33,000	17,778	(15,222)	185.62%
	<u>9,404,957</u>	<u>10,109,348</u>	<u>704,391</u>	<u>93.03%</u>
2003				
PERA	8,976,908	9,223,602	246,694	97.33%
Judicial	65,223	85,952	20,729	75.88%
Magistrate	29,629	29,078	(551)	101.89%
Volunteer Fire	31,222	17,058	(14,164)	183.03%
	<u>9,102,982</u>	<u>9,355,690</u>	<u>252,708</u>	<u>97.30%</u>
2002				
PERA	8,769,234	8,505,931	(263,303)	103.10%
Judicial	61,686	75,958	14,272	81.21%
Magistrate	32,040	28,959	(3,081)	110.64%
Volunteer Fire	29,784	16,128	(13,656)	184.67%
	<u>8,892,744</u>	<u>8,626,976</u>	<u>(265,768)</u>	<u>103.08%</u>
2001				
PERA	8,308,210	7,883,447	(424,763)	105.39%
Judicial	59,523	70,604	11,081	84.31%
Magistrate	30,258	26,685	(3,573)	113.39%
Volunteer Fire	27,992	15,807	(12,185)	177.09%
	<u>8,425,983</u>	<u>7,996,543</u>	<u>(429,440)</u>	<u>105.37%</u>
2000				
PERA	7,527,280	7,118,975	(408,305)	105.74%
Judicial	54,726	63,316	8,590	86.43%
Magistrate	27,097	23,738	(3,359)	114.15%
Volunteer Fire	24,641	17,303	(7,338)	142.41%
	<u>7,633,744</u>	<u>7,223,332</u>	<u>(410,412)</u>	<u>105.68%</u>

Exhibit 13

Ohio School Employees Retirement System Combined Actuarial Information

	Actuarial Value	AAL	UAAL	Funded Ratio
2011				
Pension & Death Benefits	\$ 10,397,000	\$ 15,943,000	\$ 5,546,000	65.21%
Medicare B	116,000	382,000	266,000	30.37%
	10,513,000	16,325,000	5,812,000	64.40%
2010				
Pension & Death Benefits	10,787,000	14,855,000	4,068,000	72.62%
Medicare B	122,000	367,000	245,000	33.24%
	10,909,000	15,222,000	4,313,000	71.67%
2009				
Pension & Death Benefits	9,723,000	14,221,000	4,498,000	68.37%
Medicare B	113,000	361,000	248,000	31.30%
	9,836,000	14,582,000	4,746,000	67.45%
2008				
Pension & Death Benefits	11,241,000	13,704,000	2,463,000	82.03%
Medicare B	131,000	358,000	227,000	36.59%
	11,372,000	14,062,000	2,690,000	80.87%
2007				
Pension & Death Benefits	10,513,000	13,004,000	2,491,000	80.84%
Medicare B	127,000	299,000	172,000	42.47%
	10,640,000	13,303,000	2,663,000	79.98%
2006				
Pension & Death Benefits	9,542,000	12,627,000	3,085,000	75.57%
Medicare B	119,000	300,000	181,000	39.67%
	9,661,000	12,927,000	3,266,000	74.74%
2005				
Pension & Death Benefits	8,893,000	11,961,000	3,068,000	74.35%
Medicare B	113,000	302,000	189,000	37.42%
	9,006,000	12,263,000	3,257,000	73.44%
2004				
Pension & Death Benefits	8,667,000	11,251,000	2,584,000	77.03%
Medicare B	117,000	298,000	181,000	39.26%
	8,784,000	11,549,000	2,765,000	76.06%
2003				
Pension & Death Benefits	8,772,000	10,634,000	1,862,000	82.49%
Medicare B	126,000	298,000	172,000	42.28%
	8,898,000	10,932,000	2,034,000	81.39%
2002				
Pension & Death Benefits	8,879,000	9,986,000	1,107,000	88.91%
Medicare B	137,000	294,000	157,000	46.60%
	9,016,000	10,280,000	1,264,000	87.70%
2001				
Pension & Death Benefits	8,791,000	9,257,000	466,000	94.97%
Medicare B	141,000	148,000	7,000	95.27%
	8,932,000	9,405,000	473,000	94.97%
2000				
Pension & Death Benefits	8,281,000	8,100,000	(181,000)	102.23%
Medicare B	-	-	-	-
	8,281,000	8,100,000	(181,000)	102.23%

Exhibit 14

**Oklahoma Teachers Retirement
Combined Actuarial Information**

	Actuarial Value	AAL	UAAL	Funded Ratio
2011				
Pension	\$ 9,960,600	\$ 17,560,800	\$ 7,600,200	56.72%
	9,960,600	17,560,800	7,600,200	56.72%
2010				
Pension	9,566,700	19,980,600	10,413,900	47.88%
	9,566,700	19,980,600	10,413,900	47.88%
2009				
Pension	9,439,000	18,950,900	9,511,900	49.81%
	9,439,000	18,950,900	9,511,900	49.81%
2008				
Pension	9,256,800	18,346,900	9,090,100	50.45%
	9,256,800	18,346,900	9,090,100	50.45%
2007				
Pension	8,421,900	16,024,400	7,602,500	52.56%
	8,421,900	16,024,400	7,602,500	52.56%
2006				
Pension	7,470,400	15,143,400	7,673,000	49.33%
	7,470,400	15,143,400	7,673,000	49.33%
2005				
Pension	6,952,700	14,052,400	7,099,700	49.48%
	6,952,700	14,052,400	7,099,700	49.48%
2004				
Pension	6,660,900	14,080,100	7,419,200	47.31%
	6,660,900	14,080,100	7,419,200	47.31%
2003				
Pension	6,436,900	11,925,200	5,488,300	53.98%
	6,436,900	11,925,200	5,488,300	53.98%
2002				
Pension	6,310,900	12,275,900	5,965,000	51.41%
	6,310,900	12,275,900	5,965,000	51.41%
2001				
Pension	5,959,000	11,591,100	5,632,100	51.41%
	5,959,000	11,591,100	5,632,100	51.41%
2000				
Pension	5,373,500	10,009,200	4,635,700	53.69%
	5,373,500	10,009,200	4,635,700	53.69%

SCOPE STATEMENT

Kansas Public Employees Retirement System: Reviewing How the Recent Economic Recovery Has Affected the System's Funding Situation

The Kansas Public Employees Retirement System (KPERS) administers the public retirement plans for state employees and employees of many local jurisdictions, such as cities, counties, and school districts. Those plans rely on funding from employer contributions, employee contributions, and investment earnings to accumulate the moneys needed to pay benefits. The latest audited figures (from June 30, 2011) show that KPERS had \$13.5 billion in net assets. Those figures also show an appreciation in fair value of the system's investments of about \$2.2 billion during fiscal year 2011.

State law calls for an annual financial audit of KPERS, which is conducted by a CPA firm under contract with Legislative Post Audit. That audit looks at whether the system presents its financial statements in accordance with generally accepted accounting principles, has adequate financial management practices, and complies with applicable laws and regulations. State law also calls for a performance audit at least once every three years.

In 2009, the Legislative Post Audit Committed approved an audit reviewing how the economic downturn affected KPERS' funding situation. Legislators have expressed an interest about the extent to which the recent economic recovery has affected the value of the system's investment portfolio and the system's ability to pay future benefits.

A performance audit in this area would address the following question:

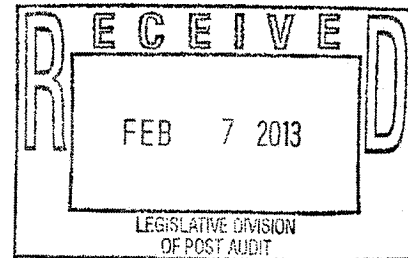
1. **How has the recent economic recovery affected the Kansas Public Employees Retirement System's funding situation?** To answer this question, the auditors would compare KPERS' funded ratios, unfunded actuarial liabilities, and contribution rates of the individual groups within KPERS over a period of 5-10 years to determine the impact of investment return in recent years on KPERS' unfunded actuarial liability. The auditors would identify public employee retirement systems with similar benefit structures in other states and gather information about those systems' funded ratios, employer and employee contribution rates, retirement age and years-of-service provisions, and levels of benefits provided. They would compare that information to similar information for KPERS.

KANSAS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

February 7, 2013

Mr. Dean W. Fullinwider, C.P.A.
Cochran Head Vick & Co., P.A.
1333 Meadowlark Lane
Kansas City, KS 66102



Dear Mr. Fullinwider:

Thank you for the opportunity to respond to the draft copy of the performance audit report on KPERS, which evaluates how the economic recovery affected the Kansas Public Employees Retirement System funding status. We appreciate the information provided by the audit, as it can provide a useful context for the KPERS Board of Trustees in its ongoing evaluation of both the investment return assumption and oversight of investment of KPERS' assets.

As you are aware, KPERS regularly reviews the economic and demographic actuarial assumptions used in valuing KPERS' liabilities and assets. This review is formalized through a triennial experience study conducted by KPERS' consulting actuary. Based on the experience study, the KPERS Board of Trustees considers recommended changes in actuarial assumptions and formally adopts any changes it concludes are prudent. Key economic assumptions include the rate of inflation and the investment return. The next experience study will be conducted this summer, and therefore, the KPERS Board will be giving careful consideration to the investment return assumption, in particular.

Likewise, the KPERS Board continues to closely monitor both investment allocation strategies and the portfolio's performance. During the 2012 Session, the Legislature provided KPERS with expanded flexibility in allocating portions of the portfolio to alternative investments.

By raising the limit on net annual commitments to alternative investment from 1.0% to 5.0% (based on the market value of the total System assets measured from the end of the preceding calendar year), the KPERS Board of Trustees will be able to increase its target allocation to alternative investments, resulting in a more efficient investment portfolio. A meaningful increase in the alternative investments allocation can improve diversification and lower the total risk of the portfolio, while also raising the probability of achieving the 8.0 percent return assumption.

While the KPERS portfolio has benefited from the post-recession economic and market recovery, the Board recognizes the role that strong investment returns continue to play in moving

Mr. Dean Fullinwider
February 7, 2013
Page 2

the KPERS System toward greater funding stability. Therefore, the Board remains committed to carrying out its fiduciary duties to the System faithfully and diligently with respect to management of investments, as well as implementation of the structural and funding reforms enacted by the 2012 Legislature through HB 2333.

We look forward to discussing the audit with the Legislative Post Audit Committee.

Sincerely,


Alan D. Conroy
Executive Director

cc: Julie Pennington, Legislative Post Audit