KENTUCKY RETIREMENT SYSTEMS

William A. Thielen, Executive Director

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MEMORANDUM

TO: State News Media

FROM: Kentucky Retirement Systems

DATE: November 24, 2014

SUBJECT: Notice of Meeting

The Kentucky Retirement Systems Board of Trustees Human Resources Committee quarterly meeting on Thursday, December 4, 2014, has been cancelled.

The Kentucky Retirement Systems Board of Trustees will hold its regular quarterly meeting on Thursday, December 4, 2014 at 9:00 a.m. for the purpose of conducting the business set forth on the attached agenda. Portions of this meeting will be held in closed session.

The meeting will be held at the KRS Boardroom at 1270 Louisville Road, Frankfort, Kentucky 40601.

cc: Meeting Notification List

KENTUCKY RETIREMENT SYSTEMS
BOARD OF TRUSTEES
REGULAR QUARTERLY MEETING
DECEMBER 4, 2014 AT 9:00 A.M., ET
1270 LOUISVILLE ROAD, FRANKFORT, KENTUCKY 40601

9:00 am	1.	Roll Call
9:01 am	2.	Approval of Minutes No. 392 and 393
9:02 am	3.	Affirmative Action Plan
9:05 am	4.	Audit Committee Quarterly Report
9:15 am	5.	Retiree Health Committee Quarterly Report
9:25 am	6.	Audited Financial Statements for Year Ending June 30, 2014
10:00 am	7.	Quarterly Financial Statements as of September 30, 2014 (unaudited)
10:10 am	8.	Comprehensive Annual Financial Report as of June 30, 2014
10:30 am	9.	*Break*
10:45 am	10.	Actuarial Valuation for Year Ending June 30, 2014
11:45 am	11.	KRS 2009 – 2013 Experience Study Recommendations
12:15 am	12.	*Lunch*
12:45 pm	13.	Potential KRS Bylaws Amendment – Change of August Quarterly Meeting Dates
1:00 pm	14.	Investment Committee and Investment Portfolio Quarterly Report
1:30 pm	15.	Legislative Update
1:45 pm	16.	Quarterly Budget Update
1:50 pm	17.	Informational Reports • Initial Retirement Cases, 4th Quarter 2013 • Death Benefit Cases, 4th Quarter 2013 • Refund of Member Contributions for 4th Quarter 2013 • Report of Decisions by the Medical Examiners • Disability Appeals Committee Quarterly Report • Administrative Appeals Committee Quarterly Report
1:55 pm	18.	Participation of Additional Agencies & Hazardous Positions
2:00 pm	19.	Pending Litigation (Closed Session)
2:30 pm	20.	Other Business
2:45 pm	21.	*Adjourn*

**Times listed are approximate.*

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Affirmative Action Plan

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

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

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

The current employment statistics for the Kentucky Retirement Systems show that as of September 30, 2014, there are 254 full-time employees. There are 155 female employees, representing 61.02 % of the staff, and 27 employees who are members of minority groups, representing approximately 10.63% of the staff. Females make up 58.82% of the leadership positions in the Kentucky Retirement Systems, while employees who are members of minority groups hold 5.88% of the leadership positions in the Kentucky Retirement Systems.

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

RECOMMENDATION: This memorandum is presented for informational purposes only.

KENTUCKY RETIREMENT SYSTEMS

OVERALL AND MINORITY FULL TIME EMPLOYMENT
BY TYPE OF EMPLOYMENT AND DIVISION
AS OFSEPTEMBER 30, 2014

KRS AREA/DIVISION	KRS EMPLOYMENT CATEGORY											
	LEADERSHIP			PROFESSIONAL			SUPPORT			TOTALS		
	Total	Minor.	(%)	Total	Minor.	(%)	Total	Minor.	(%)	Total	Minor.	(%)
Executive Staff	5	0	0.0%	1	0	0.0%	3	0	0.0%	9	0	0.0%
Communications	1	0	0.0%	5	0	0.0%	0	0	0.0%	6	0	0.0%
Legal	3	1	33.3%	7	0	0.0%	5	1	20.0%	15	2	13.3%
Human Resources	1	0	0.0%	3	1	33.3%	0	0	0.0%	4	1	25.0%
Internal Audit	1	0	0.0%	2	1	50.0%	0	0	0.0%	3	1	33.3%
Information Security	1	0	0.0%	2	0	0.0%	0	0	0.0%	3	0	0.0%
Administration	**12**	**1**	**8.3%**	**20**	**2**	**10.0%**	**8**	**1**	**12.5%**	**40**	**4**	**10.0%**
Accounting	4	0	0.0%	12	1	8.3%	0	0	**0.0%**	16	1	6.3%
Disability & Death	5	0	0.0%	18	1	5.6%	4	0	**0.0%**	27	1	3.7%
Employer Reporting Compliance & Education	3	0	0.0%	17	1	5.9%	0	0	0.0%	20	1	5.0%
Information Technology	4	0	0.0%	27	5	18.5%	5	0	0.0%	36	5	13.9%
Investments	3	0	0.0%	1	0	0.0%	0	0	0.0%	4	0	0.0%
Member Services	7	0	0.0%	31	3	9.7%	2	0	0.0%	40	3	7.5%
Membership Support	4	1	25.0%	20	1	5.0%	6	2	33.3%	30	4	13.3%
Procurement & Office Services	4	1	25.0%	0	0	0.0%	10	4	40.0%	14	5	35.7%
Retiree Health Care	3	0	0.0%	15	1	6.7%	2	0	0.0%	20	1	5.0%
Retiree Services (Payroll)	2	0	0.0%	5	2	40.0%	0	0	0.0%	7	2	28.6%
TOTALS	**51**	**3**	**5.88%**	**166**	**17**	**10.24%**	**37**	**7**	**18.92%**	**254**	**27**	**10.63%**

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen, Esq.
Executive Director

DATE: December 4, 2014

SUBJECT: Quarterly Reports of the Audit Committee

The Audit Committee held its special called quarterly meeting on November 19, 2014. The purpose of the meeting was to review and discuss, among other miscellaneous audit related items, the following:

- *Review of Employees' Use of Voting Leave – May 20, 2014, Primary Election*

  CONCLUSION

  Based upon the audit tests performed, it appears that employees requesting voting leave actually voted in the May 20, 2014, Primary Election.

  MANAGEMENT'S COMMENTS
  (Ms. Marlane Robinson, Division Director of Human Resources)

  The audit report referenced above has been reviewed. Based upon the audit tests performed, employees requesting voting leave actually voted in the May 20, 2014 Primary Election. No recommendations to change the current process and procedures were provided. The Division of Human Resources will continue to coordinate Voting Leave with the assistance of the Kentucky Retirement Systems leadership team while striving to improve our efficiency.

- *Review of Death Audit utilizing Lexis Nexis*

FINDING

(1) The death exception and probable death reports have not been properly interfaced to START or reviewed.
<u>Level of Severity: High</u>
KRS depends on several sources to catch member deaths that are not directly reported to us. The main sources used are the vital statistic report from the State and Electronic Fund Transfer (EFT) returns from the bank when they have the person noted as deceased. The Lexis Nexis monthly report is used for the exact death matches as this is an electronic process, but is not currently used for probable deaths. The State Vital Statistic monthly report is received and ran against START to verify deaths not reported. Exact matches are automatically updated in START and sent to Disability and Death for processing, but the probable deaths are not reviewed.

Each month the active benefit accounts in START are ran against Lexis Nexis for death matches. The Lexis Nexis interface batch processing runs in START-LOB and updates death matches automatically when the social security number (SSN) and date of birth (DOB) match the KRS system. Unmatched death statuses (SSN or DOB different) are noted on the death exception or probable death reports and are loaded in START for review by the Disability and Death Branch. During the review of the death audit process, it was determined that these two reports required additional programming changes in order to access them in START. The last death audit report in PBI was in July 2013 on a quarterly basis and then ran through Lexis Nexis monthly starting in November 2013. The death exception and probable death reports from Lexis Nexis were generated, but not assessable until Information Technology (IT) made the additional programming changes in June 2014. The Disability and Death Branch processed all exact matches sent to them from the electronic process of Lexis Nexis. However, the death exception and probable death reports have not been reviewed by the Disability and Death Branch.

Since the reports are not currently loaded to START and are not reviewed, the internal auditor requested the Lexis Nexis Death Audit report from IT and performed a review of it. The auditor found the following exceptions that required further investigation and/or correction:

a. *Four retirees or beneficiaries were indicated as deceased on the Death Audit report. The DOBs were off by a few days, so the system did not mark these accounts and continued to pay benefits. The Disability and Death Branch was contacted to correct these accounts. Accounts were corrected prior to the audit ending. Any overpayments will be collected. A total of $2,849.89 possible overpayments due to these unmatched deaths from the death audit reports. After the Disability and Death Branch were notified of these errors, it was noted that one retiree was marked as deceased in Lexis Nexis in error and the other three were deceased retirees or beneficiaries. This reduced the overpayment amount by $694.63; $1,671.21 has been recovered, leaving a balance of $484.05 to be recovered. Overpayment verification will be tested in the next death audit.*

b. *Three retirees were indicated as deceased on the Death Audit report. The DOBs were off by years, so the system did not mark these accounts and continued to pay benefits. Two of these retirees show dates of death (DOD) in years prior to their retirement date and so it is highly unlikely that these members have been receiving payments after death. The other retiree could have been receiving payment after death. Because the DOD's are for many years in the past, the auditor has decided to verify their "alive and well" status through extended procedures. An affidavit was sent to these members to complete and have notarized. If the member did not return this form then their benefit would be suspended for further review/audit. All affidavits have been received.*

c. *One retiree's deceased dependent is still receiving health insurance benefits through KRS. The Retiree Health Care Branch was contacted to correct this issue. The deceased dependent has been removed from the START account prior to the audit concluding. Since this retiree had another dependent, the premium amount paid for insurance would have been the same even with this dependent removed. No overpayments in premiums were paid.*

While the number and amount of the exceptions noted above are immaterial in comparison to all death payments/benefits paid, the risk of not catching these exceptions in a timely manner is that the number and amount could grow to be material. Out of the 257 matches on these reports, 63 (24%) were complete matches and marked automatically in START as deceased. Without reviewing these reports there were a 194 (76%) possible matches that could have been receiving payments after death, which if they had been the amount noted in exceptions would have been material.

The lack of review of the death exception and probable death reports could result in benefits being paid to a deceased retiree or beneficiary. Controls for detecting unmatched death statuses are not working effectively.

Good internal control over the death audit process dictates that all unmatched death statuses are reviewed.

RECOMMENDATION

(1) *Internal audit recommends:*

a. *Information Technology should ensure the death exception and probable death reports are loading to START, so that they can be reviewed by the Disability and Death Branch.*
b. *Disability and Death should use the Lexis Nexis exception and probable death reports along with the State vital statistic report and returned EFTs, because these methods may not catch all deaths. The State vital statistic report will only catch the in state deaths, and bank returned EFTs only happen if the member has been reported as deceased in their records. This process should be documented for future reference.*
c. *Disability and Death Branch should review the death exception and probable death reports quarterly and document this review.*
d. *All exceptions noted in this finding should be corrected in a timely manner.*
e. *That KRS ensure all overpayments are collected.*

Auditor note: *The Disability and Death Branch logged the PIR for the report issue in March 2014. The Information Technology Branch finalized the PIR to correct these reports in June 2014. The reports are now available in START for review.*

MANAGEMENT'S COMMENTS

(Mr. Jeffrey F. Luckett, Division of Information Technology)

Information Technology Management Response:
Updates to the Probable Death Match and Death Audit Exception reports were completed in June 2014. Information Technology analysts will ensure that access to those reports is verified during future report changes.

(Ms. Liza Welch, Division Director, Disability and Death)

Recommendation #1b:
Response: *Death Branch staff will document this process by December 31, 2014.*

Recommendation #1c:
Response: *Death Branch staff will audit the Lexis Nexis exception report quarterly beginning with the third quarter of the 2014-2015 fiscal year.*

Recommendations # 1d:
Response: *All necessary corrections have been made to member and beneficiary accounts to avoid any further overpayments.*

FINDING

(2) Out of the Country retirees or beneficiaries "alive and well" statuses are not verified.

Level of Severity: High

Internal audit only reviews out of the country benefits accounts every three to four years. The last time these accounts were verified was in FY 2009. During that audit it was noted that there was no process in place to verify the "alive and well" status of out of the country retirees or beneficiaries. There is a possibility that these retirees or beneficiaries could be deceased and not be reported to the Social Security Administration (SSA).

During the review of the Death Audit this year it was determined that there is still no process in place to verify the "alive and well" status of out of the country retirees or beneficiaries. The auditor performed extended procedures for these benefit accounts by sending an affidavit for the member to complete and have notarized. If the member did not return this form then their benefit would be suspended for further review/audit.

Internal audit verified the living status of all out of the country retirees and beneficiaries receiving a benefit. For one retiree we did not receive a response to our first request, so we sent a second request which was returned for an invalid address. Then we tried to contact the beneficiary to get the contact information for the retiree. The letter sent to the beneficiary was returned due to an invalid address.

Therefore, we were unable to verify the living status of this retiree and there is a possibility that we may be paying a benefit to a deceased member. The monthly benefit amount paid to this member is $467.45.

Auditor note: *Retiree Services suspended this account prior to the audit concluding. Member contacted KRS and returned required forms.*

Good internal control over the death audit process dictates that all out of the country benefit account holders be verified as "alive and well".

RECOMMENDATION
Recommendations:
(2) *Internal audit recommends:*

- *a. The Retiree Services (Payroll) Division should document a process for verifying the "alive and well" status of all retirees or beneficiaries living out of the country.*
- *b. The out of the country "alive and well" verification should be done annually.*
- *c. That the account noted above be suspended until the member contacts us and provides the requested information. (Retiree Services complete this recommendation prior to the audit concluding.)*

MANAGEMENT'S COMMENTS
(Mr. David Nix, Director Division of Retiree Payroll)

Response to Recommendation #2:
Agree with findings and recommendations. A process for the annual "alive and well" status of out of the country retirees and beneficiaries will be established and documented by December 31, 2014, with the first annual review to occur by Retiree Payroll staff no later than June 30, 2015.

- *Review of Health Insurance Billings (Non-Medicare Eligible)*

FINDINGS

(1) Dependents are not verified
Level of Severity: Medium
During the testing of health insurance billings (non-Medicare eligible) the auditor noted that dependents are not verified by

Kentucky Retirement Systems (KRS). KRS relies on the Department of Employee Insurance (DEI) who administers the Kentucky Employees Health Plan (KEHP) to verify the dependents. DEI relies on the fact that the application is a legally binding document; and notes on the application that by signing the member certifies that each enrolled dependent meets KEHP eligibility requirements and that supporting documentation may be requested and required. DEI had Chapman Kelly perform an audit of dependent verification in 2010, where every KEHP dependent was verified or removed. During this audit it was found that the state was carrying many non-eligible dependents and removed them, resulting in substantial savings for the State. DEI now selects a sample each year of KEHP dependents to verify their eligibility. DEI notifies the member themselves and request the required information be sent directly to them and they do not forward this documentation on to KRS, if it is a retired member. DEI notifies KRS when the dependent is removed from the plan.

As of May 2014 KRS had 25,683 retirees with KEHP. Internal audit selected 280 KEHP retirees for testing and 54 (19%) retirees claimed dependents that were not verified by KRS. Of those 54, eleven (11) (20%) were paid for by KRS due to the retiree having hazardous duty service credits. Due to health care reform parents/guardians may carry their dependent(s) until they are 26 years old, KRS's current system terminates their coverage at the appropriate date and DEI sends out letters for COBRA coverage. However, KRS is not verifying that they are a true dependent(s) of the retiree at the time of enrollment and that KRS has the correct date of birth (DOB).

The non-hazardous dependents are paid for by the retiree are included in the population for verification through DEI. The auditor believes the testing done by DEI is sufficient for these dependents. The hazardous duty dependents are also included in the population for verification through DEI. However, since KRS pays the insurance premiums for the dependents of hazardous duty retirees; without verification of the dependents eligibility it is likely that we may be paying for ineligible dependents.

Good internal control over dependent eligibility requires verification.

RECOMMENDATION

(1) *Internal audit recommends that all hazardous duty dependents are verified to ensure eligibility.*

MANAGEMENT'S COMMENTS

(Ms. Connie Pettyjohn, Director of Retiree Health Care)

Retiree Health Care will implement dependent verification of Hazardous Duty Retirees.

- *Product Improvement Request (PIR) has been submitted to KRS Information Technology (IT) in order to implement the verification of these dependents. A total of 4 PIR's for this process is targeted for implementation during the fall of 2014. This is scheduled to coincide with a mandatory open enrollment for non-Medicare eligible KRS Retiree Health Insurance.*
- *Retiree Health Care staff will initiate this process with the health insurance enrollment of hazardous duty retirees during the fall of 2014 for plan year 2015. After this initial implementation this work will require approximately 7.5 hours a week staff time to maintain compliance.*
- *Retiree Health Care management will monitor monthly and/or quarterly reporting to ensure compliance.*

FINDING

(2) Data entry errors noted during audit.

<u>Level of Severity: Low</u>

During the testing of retirees with health insurance the auditor noted the following data entry errors:

a. Two (2) retiree's health insurance applications noted that they were tobacco users, but the system had them marked as non-tobacco users. A tobacco fee is charged to all tobacco users and deducted from the benefit payment each month. All members (non-hazardous and hazardous duty) pay this fee, if they use tobacco products. The Retiree Health Care Branch was notified of this error and corrected the issue prior to the audit concluding.

b. One (1) retiree's health insurance application indicated that they wanted to remove a dependent from the plan. However, *this dependent was not removed. The retiree did not overpay in premiums because they still had two (2) other dependents and still required the family plan. The Retiree Health Care Branch was notified of this error and corrected the issue prior to the audit concluding.*

c. *One (1) retiree's foster child dependent, paid for by KRS due to retiree having hazardous duty service was not verified by KRS or DEI. The Retiree Health Care (RHC) Branch has been notified of this issue and is in the process of requesting verification from the retiree.*

Good internal control over manual entry requires that the documentation be thoroughly reviewed before entry and approval.

RECOMMENDATION

(2) *Internal audit recommends that:*

a. *All errors noted above are corrected in a timely manner.*
b. *Documentation is thoroughly reviewed during manual entry and before approval.*
c. *The Retiree Health Care Branch ensures documentation is obtained for the foster child to determine insurance eligibility.*

MANAGEMENT'S COMMENTS

(Ms. Connie Pettyjohn, Director of Retiree Health Care)

- *Retiree Health Care management will counsel staff and provide additional education around accuracy and prevention of data entry errors.*
- *Retiree Health Care Management has implemented 2 PIR's that will capture data for auditing. This auditing will be completed every 6 months and adjusted as required.*

- *Review of Travel and Procurement Card Expenditures*

FINDINGS

Travel - Findings and Recommendations

(1) Employee training on travel policy has not been conducted for all KRS staff.
Level of Severity: Low

In the prior year travel and pro-card audit the Internal Auditor recommended that Management perform a formal training with all staff that travel, may travel, or approve travel for KRS. All new employees that may travel for KRS should receive this training prior to traveling. Management may want to consider doing this training annually as a refresher to what the policy and procedures require for travel expenses to be reimbursed. This recommendation was made due to the high number of errors noted during the testing of the travel expenditures.

This training has not been performed for all KRS staff. One division requested training before a travel project began and this division was trained on what the travel policy required for reimbursement. The travel policy was sent to the Board shortly after the audit concluded for clarification and revisions. Management decided to wait on conducting this training until the travel policy changes were approved by the Board. The Board approved the travel policy changes at the September 11, 2014 Board meeting.

The lack of travel policy training could result in travel reimbursement errors and/or overpayments.

Good internal controls dictate that policy and procedures be in place and followed by all staff for travel reimbursement to ensure that travel expenses are valid, reasonable, and appropriate.

RECOMMENDATIONS

(1) *Internal audit recommends that since the travel policy changes have been approved by the Board that staff travel training be performed in a timely manner.*

MANAGEMENT'S COMMENTS

(Ms. Ann Case, CGAP, CRMA, Deputy Controller and Mr. Todd E. Coleman, CPA, Controller)

Recommendation #1 Response:

Concur with Recommendation. The training has been discussed with Human Resources, but the training has not been scheduled.

FINDINGS

(2) Errors noted on travel vouchers.

Level of Severity: Low

During the FYE 6/30/2014 travel audit the auditor used a sampling plan that required 117 travel vouchers be tested. The Internal Audit in-state (361T) and out-of-state (362T) accounts were excluded due to lack of independence. The sample was split between the in-state (361), in-state Investments (361I), out-of-state (362), and out-of-state Investments (362I) accounts. Seven (7) exceptions were noted out of the 117 tested travel vouchers, for an error rate of 6%. The auditor noted the following exceptions:

a. One meal reimbursement for travel without overnight stay, which is allowable but must run through payroll for tax purposes. The voucher was reviewed and approved, this error was just an oversight as the voucher contained more than one trip and the other trips had overnight stays. Accounting was notified of this error and the error has been corrected by receiving a refund from the employee and processing the expense through payroll.

b. One travel voucher used the wrong mileage rate resulting in an overpayment of $4.76. Accounting was notified of this error and the error has been corrected by receiving a refund from the employee.

c. One travel voucher was not reviewed and/or approved by the Executive Director or Chief Operation Officer. Accounting has been notified of this error.

d. One out of state travel voucher was missing the request for travel form, which is required for out of state travel. Accounting has been notified of this error.

e. Two travel vouchers only had the reservation confirmation and not the receipt for the airfare or hotel expense. Accounting has been notified of this error.

f. One travel voucher was reimbursed $40 for hotel parking, but the receipt only noted $20 paid by the traveler. An overpayment of $20 was noted. Accounting has been notified of this error.

According to the Travel Policy and Procedures:

Section 2 B: In the event a KRS traveler shall travel out of state, authorization shall be obtained on a Request for Travel form containing the following information:

(1) Name and title of KRS traveler requesting travel authorization;
(2) Purpose of travel
(3) Vicinity and length of travel;
(4) Estimated cost of travel;
(5) Signature and date of person requesting authorization;
(6) Signature and date of Division Director;
(7) Signature and date of Chief Officer;
(8) Signature and date of the Executive Director or person authorized by Executive Director; and
(9) Signature and date of Chair of the Board of Trustees or person authorized by the Chair, if the traveler is the Executive Director.

Section 5 B1: A traveler traveling on official KRS business shall be reimbursed for the actual cost of lodging if the lodging is determined by the KRS Controller or Chief Operations Officer to be the most economical; and the traveler has provided the hotel, motel, or other establishment's receipts to be reimbursed for his travel expenses. Reimbursement for lodging shall not exceed the cost of a single room rate or one-half the double rate.

Section 5 C9: Meal reimbursement for employees who do not have overnight travel is a taxable fringe benefit, according to the Internal Revenue Service (IRS). For this reimbursement, KRS will *withhold the applicable federal employment taxes and report this fringe benefit on the traveler's W-2 form.*

According to the IRS Federal, State, and Local Governments Fringe Benefit Guide #9 Travel Expenses: Qualifying expenses for travel are excludable if they are incurred for temporary travel on business away from the general area of the employee's tax home. In order to be excludable as reimbursements, the travel must be temporary and be substantially longer than an ordinary day's work, requiring an overnight stay or substantial sleep or rest. Courts have ruled that stopping for a meal or rest in a car does not meet the substantial "sleep or rest" rule.

According to the internal control process all travel vouchers must be signed by the employee, reviewed and signed by the Supervisor and/or Director, Chief Operations Officer, and Controller or Deputy Controller.

Good internal controls dictate that policy and procedures be in place and followed by all staff for travel reimbursement to ensure that travel expenses are valid, reasonable, and appropriate.

RECOMMENDATIONS

(3) *Internal audit recommends:*

a. *That all travel vouchers be thoroughly reviewed and approved at every level as noted in our internal control process to ensure that travel expenses are allowable, calculated correctly, funds available, have the appropriate supporting documentation, and coded to the appropriate account.*
b. *That all meal reimbursements without overnight stays are processed through payroll to ensure we are in compliance with KRS Travel Policy and Procedures and the IRS.*
c. *That all out of state travel vouchers includes a copy of the request for travel form before approval for reimbursement.*
d. *That the $20 parking overpayment be collected from the traveler.*

MANAGEMENT'S COMMENTS

(Ms. Ann M. Case, CGAP, CRMA, Deputy Controller and Mr. Todd E. Coleman, CPA, Controller)

Recommendation #2 Response:
Concur with Recommendation. KRS was unable to collect the overpayment of the parking because the employee no longer is an employee at KRS.

FINDING

(4) The total and/or mileage rate cells on the two travel voucher templates are not locked and the password for the locked cells is located on the shared J:/Drive and does not adhere to the Passphrase Policy.

Level of Severity: Low

In FY 2012 Travel and Pro-card audit the auditor noted an issue with the total and mileage rate cells not being locked on the travel voucher template. In FY 2013, the auditor performed follow-up and found that this issue had been corrected.

During FY 2013 issues were noted that caused the travel voucher to be updated and include a second copy that was for travel without overnight stay to ensure meal reimbursement for this type of travel was paid through payroll as required by the IRS. In FY 2014 the auditor found that total cells or the mileage rate cell was not locked on the travel voucher with overnight stay and the mileage rate cell was not locked on the travel voucher without overnight stay. It was also noted that the password for the cells that are locked is located on the J:/Drive for anyone to see. The current viewable password does not meet KRS Passphrase Policy.

According to the KRS User ID and Passphrase Policy, Section 2 (1):Pass phrases shall be:

a. *Kept confidential;*
b. *Changed at least every 90 days unless otherwise approved;*
c. *Changed whenever there is a chance that the passphrase or the system could be compromised;*
d. *Encrypted when held in storage or when transmitted across the network when the path is connected to an external network;*
e. *Mixed-case alphabetic;*
f. *Include at least one (1) special character; and*
g. *Include at least one (1) number.*

It is necessary for these columns to be locked to help minimize calculation errors and/or overpayments.

Good internal controls dictate that policy and procedures be in place and followed by all staff for travel reimbursement to ensure that travel expenses are valid, reasonable, and appropriate.

RECOMMENDATIONS

(3) *Internal Audit recommends:*

- *a. That all total and mileage rate cells be locked on both travel voucher forms.*
- *b. That the password to unlock the protected cells be accessible to only a select number of staff that need access to update these templates.*
- *c. That the password to these templates follows the KRS passphrase policy.*

MANAGEMENT'S COMMENTS

(Ms. Ann M. Case, CGAP, CRMA, Deputy Controller and Mr. Todd E. Coleman, CPA, Controller)

Recommendation #3 Response:
Concur with Recommendation.

Procurement Card - Findings and Recommendations

FINDINGS

(4) Pro-card expenditure missing invoice, receipt, or other supporting documentation.

Level of Severity: Low

During the review of pro-card expenditures the auditor noted one expenditure without supporting documentation. This expenditure was for Amazon Prime membership ($79) to help cut shipping cost. Amazon does not provide a confirmation for this item and this fee does not show up in the order history to be able to print.

According to the KRS Procurement Card Policy, number 5: Employees shall submit invoices, receipts, and other *documentation being requested by the Division of Accounting. If documentation necessary to support all charges made on the ProCard assigned to that employee within five (5) days of the the supporting documentation is not submitted in accordance with this policy, the employee shall be required to reimburse the Systems for the amount of the purchase(s). The Executive Director may allow an employee to file documentation of a purchase after the five (5) days if the employee shows good cause why the documentation was not timely filed.*

Good internal controls dictate that policy and procedures be in place and followed by all staff for pro-card expenditures to ensure that expenses are valid, reasonable, and appropriate.

RECOMMENDATIONS

(4) *Internal audit recommends:*

- *a.* *Some form of supporting documentation should be obtained for all purchases.*
- *b.* *If an invoice/receipt or payment confirmation is not available, then management should determine what kind of documentation is acceptable. All pro-card expenditures should have some type of documentation for the expenditure.*
- *c.* *The Accounting department should ensure that all transactions have supporting documentation on file when reconciling the monthly statement.*

MANAGEMENT'S COMMENTS

(Ms. Ann M. Case, CGAP, CRMA, Deputy Controller, and Mr. Todd E. Coleman, CPA, Controller)

Recommendation #4 Response:

Concur with Recommendation.

- *Review of Audited Financial Statements for the Fiscal Year Ended June 30, 2014*
- *Review of Managements Response to GFOA for CAFR 2013*
- *Review of Quarterly Financial Statements – 9/30/2014*

- *Review of A-133 Disclosure Letter (Federal Awards)*
- *Review of Employer Penalty/Waiver List*
- *Review of Outstanding Invoices*
- *Review of Management Follow up on Audit Findings and Recommendations Summary Dashboard*
- *Disclosure of Assets, Liabilities, and Contingencies - June 30, 2014*
- *Review of Internal Audit Budget 6/30/2014*
- *Review of Anonymous Reporting Spreadsheet*
- *Review of Investment Compliance Report*
- *State Police Employee Retirement System Board Election Memoranda*
- *Audit Committee Meeting Dates for Calendar Year 2015*
- *Annual Review of the Charters of the Audit Committee and the Division of Internal Audit*
    - *Status of Current Audits MemorandaThe Audit Committee voted to eliminated the regular voting leave audit and authorixed staff to conduct such an audit on a periodic basis.*
- *Review of 2014 Infrastructure Audit* ***(Closed Session)***
- *Review of 2014 START Application Assessment* ***(Closed Session)***

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

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: November 19, 2014

SUBJECT: Report of the KRS Retiree Health Plan Committee

The KRS Retiree Health Plan Committee (RHC) met on November 19, 2014. The RHC reviewed a presentation by a representative from AON Hewitt regarding the Medicare Advantage Request for Proposal (RFP) time line and provided general information about how the RFP would be created, reviewed and scored. The RHC also reviewed an informational presentation by representatives from Humana containing information about the KRS Medicare eligible health plan drug formulary changes for plan year 2015. The only action taken by the RHC was to approve a recommendation to the full KRS Board of Trustees that AON and KRS staff work on a draft RFP for publication and present it at a special RHC meeting in January 2015. This RFP is to provide health insurance and related services to the KRS Medicare eligible members for the period January 1, 2016 through December 31, 2018 with options for three (3) one year renewals.

RECOMMENDATION: The Executive Director recommends that the Board ratify the RHC Committee action.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Financial Statement Audit – FYE 2014

The external audit firm, Dean, Dorton, PLLC, Certified Public Accountants, has completed its audit work of fiscal year 2014.

Mr. Jim Tencza, Director of Assurance Services, and Mr. Joseph Overhults, CPA, Associate Director of Assurance Services will be present to discuss details of the audit.

Mr. Tencza, and Mr. Overhults will address any questions, you, or the Committee, may have regarding the financial statement audit of fiscal year 2014.

RECOMMENDATION: The Executive Director recommends accepting the findings of the Dean, Dorton, PLLC, FY 2014 Financial Statement and Information Technology Audit Reports.

KENTUCKY RETIREMENT SYSTEMS

Financial Statements and Supplementary Information

For the Fiscal Years Ended June 30, 2014 and 2013
With Report of Independent Auditors

CONTENTS

REPORT OF INDEPENDENT AUDITORS

Board of Trustees
Kentucky Retirement Systems
Frankfort, Kentucky

Report on the Financial Statements

We have audited the accompanying combining financial statements of the Pension Funds and Insurance Fund of the Kentucky Retirement Systems, a component unit of the Commonwealth of Kentucky, as of and for the fiscal year ended June 30, 2014, and the related notes to the combining financial statements, which collectively comprise the Kentucky Retirement Systems' basic combining financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these combining financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of combining financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combining financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the combing financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the combining financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combining financial statements.

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

KENTUCKY RETIREMENT SYSTEMS
REPORT OF INDEPENDENT AUDITORS
(Continued)

Opinion

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the respective combining plan net position of the Pension Funds and Insurance Fund of the Kentucky Retirement Systems, a component unit of the Commonwealth of Kentucky, as of June 30, 2014 and the respective combining changes in plan net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Report on Summarized Comparative Information

The combining financial statements of Kentucky Retirement Systems as of and for the fiscal year ended June 30, 2013 (not presented herein), were audited by other auditors whose report dated December 5, 2013, expressed an unmodified opinion on those statements. In our opinion, the summarized comparative information presented herein as of and for the fiscal year ended June 30, 2013, is consistent, in all material respects, with the audited combining financial statements from which it has been derived.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis (pages 5 through 10) and the Schedules of Changes in the Net Pension Liability, Schedules of the Net Pension Liability, Schedules of Employer Contributions, Schedules of Funding Progress, and Schedules of Contributions from Employers and Contributing Entities (pages 70 through 90) be presented to supplement the basic combining financial statements. Such information, although not a part of the basic combining financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic combining financial statements in an appropriate operational, economical, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic combining financial statements, and other knowledge we obtained during our audit of the basic combining financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures did not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the combining financial statements that collectively comprise the Kentucky Retirement Systems' basic combining financial statements. The additional supporting schedules (pages 92 through 95) are presented for purposes of additional analysis and are not a required part of the basic combining financial statements. The supporting schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic combining financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic combining financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to

KENTUCKY RETIREMENT SYSTEMS
REPORT OF INDEPENDENT AUDITORS
(Continued)

prepare the basic combining financial statements or to the basic combining financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules are fairly stated, in all material respects, in relation to the basic combining financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 4, 2014 on our consideration of the Kentucky Retirement Systems' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Kentucky Retirement Systems' internal control over financial reporting and compliance.

December 4, 2014
Lexington, Kentucky

MANAGEMENT'S DISCUSSION AND ANALYSIS

KENTUCKY RETIREMENT SYSTEMS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

This discussion and analysis of Kentucky Retirement Systems' financial performance provides an overview of the pension and insurance fund financial activities for the fiscal year ended June 30, 2014. Please read it in conjunction with the combining financial statements, which begin on page 15.

Financial Highlights-Pension Funds

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

- The combined net position of all pension funds administered by Kentucky Retirement Systems increased by $862.8 million during fiscal 2014.

- Total contributions reported for fiscal 2014, totaled $1,055.7 million compared to $1,027.2 million in fiscal 2013. This increase is due to a rise in the employer contribution rates and the collection of additional health insurance contributions.

- The member health insurance contribution totaled $12.4 million, for the fiscal year ended June 30, 2014, compared to $9.1 million in the prior fiscal year.

- The net appreciation in the fair value of investments was $1,361.9 million for the fiscal year ended June 30, 2014 compared to net appreciation of $890.6 million for the prior fiscal year.

- Interest, dividend and net securities lending income for fiscal 2014 was $327.5 million compared to $291.3 million in fiscal 2013.

- Pension benefits paid to retirees and beneficiaries for fiscal 2014 totaled $1,769.7 million compared to $1,706.2 million in fiscal 2013. Refund of contributions paid to former members upon termination of employment for fiscal 2014 totaled $33.6 million compared to $32.2 million in fiscal 2013.

- 2014 administrative expense totaled $34.2 million (Pension $32.6 million; Insurance $1.6 million) compared to $40.3 million (Pension $30.6 million; Insurance $9.8 million) for the prior year. The decrease of $6.1 million is related to lower healthcare fees ($8.2 million) partially offset by higher legal and technology expenses (see Schedule of Administrative Expenses on page …….).

Financial Highlights-Insurance Fund

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

- The Board contracted with Humana Insurance Company to provide healthcare benefits to KRS' retirees through a fully-insured Medicare Advantage Plan. The Humana Medicare Advantage Plan became effective January 1, 2013.

- The combined net position of the insurance fund administered by Kentucky Retirement Systems increased by $632.5 million during fiscal 2014.

KENTUCKY RETIREMENT SYSTEMS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
(Continued)

Financial Highlights-Insurance Fund (Continued)

- Premiums received from retirees who participated in the Medicare eligible self-funded plan totaled $2.4 million, compared to $26.3 million in fiscal 2013. The decrease is a result of Centers for Medicare and Medicaid Services (CMS) paying a portion of the retiree's premium. In addition, the decrease is attributable to the cessation of the self funding plan. The self funded plan was one in which KRS assumed the financial risk for providing healthcare benefits to its retirees. The funded-plan paid for claims out-of-pocket as they were presented instead of paying a pre-determined premium to an insurance carrier for a fully-insured plan.

- Employer contributions of $397.4 million were received in fiscal 2014 compared to $447.3 million in fiscal 2013. This change is due to a decrease in the insurance contribution rate applied to CERS covered payrolls.

- The reimbursement of retired-reemployed health insurance for fiscal 2014 totaled $5.6 million compared to $5.8 million in the prior fiscal year.

- The Employer Group Waiver Plan receipts from CMS subsidies for fiscal 2014 totaled $14,295 compared to $11.2 million in fiscal 2013. This decrease is due to the cessation of the self funding plan.

- The net appreciation in the fair value of investments for fiscal 2014 was $445.7 million compared to net appreciation of $232.9 million for the prior fiscal year.

- Interest, dividend and net securities lending income for fiscal 2014 was $97.1 million compared to $90.4 million in fiscal 2013.

- Premiums paid by the fund for hospital and medical insurance coverage (under age 65) totaled $292.2 million. Payments for the self-funded healthcare reimbursements (over age 65) totaled $6.2 million. The total of insurance premiums paid plus self-funded reimbursements was $298.4 million for fiscal 2014. Insurance premiums paid plus self-funded healthcare reimbursements for the prior plan year totaled $361.9 million. On August 6, 2012, the Board of Trustees voted to cease self-funding of healthcare benefits for most KRS Medicare eligible retirees.

- As part of the application process to CMS to enter into a contract to offer a Medicare Prescription Drug Plan, Kentucky Retirement Systems was required to establish a segregated Insolvency Account in the amount of $100,000; this account must retain a minimum balance of $100,000. The account consists of cash and/or cash equivalents, and is invested on a daily basis. The balance as of June 30, 2014, totaled $100,039.

KENTUCKY RETIREMENT SYSTEMS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
(Continued)

Using This Financial Report

Because of the long-term nature of a defined benefit pension plan and post-employment healthcare benefit plan, the combining financial statements alone cannot provide sufficient information to properly reflect the plans' ongoing plan perspective. This financial report consists of two combining financial statements and two required schedules of historical trend information. All plans within KRS are included in the aforementioned combining financial statements. The Combining Statement of Plan Net Position for the Pension Funds, on page 12, and the Combining Statement of Plan Net Position for the Insurance Fund, on page 15, provides a snapshot of the financial position of each of the three systems at June 30, 2014. The Combining Statement of Changes in Plan Net Position for the Pension Funds, on pages 13-14, and the Combining Statement of Changes in Plan Net Position for the Insurance Fund, on pages 16-17, summarizes the additions and deductions that occurred for each of the three systems during fiscal 2014.

The Schedules of the Net Pension Liability, the Schedules of Changes in Net Pension Liability, and Schedules of Funding Progress, on pages 70 - 85, include current and historical trend information about the actuarially funded status of each plan from a long-term, ongoing plan perspective and the progress made in accumulating sufficient assets to pay benefits and insurance premiums when due. The Schedules of Employer Contributions and Schedules of Contributions from Employers and Other Contributing Entities, on pages 78 to 82 and 86 to 90, present current and historical trend information about the annual required contributions and the contributions made in relation to the requirement. These schedules provide information that contributes to understanding the changes over time in the funded status of the plans.

Kentucky Retirement Systems as a Whole

Kentucky Retirement Systems' combined net position increased $1,495.3 million, during the fiscal year ended June 30, 2014. Net position for the prior fiscal year increased by $831.6 million. The increase in net position for the plan year ended June 30, 2014 is primarily attributable to a net appreciation in the fair value of investments, an increase in member contributions and a decrease in health care costs. The analysis below focuses on net position (Table 1) and changes in net position (Table 2) of Kentucky Retirement Systems' Pension and Insurance Funds.

KENTUCKY RETIREMENT SYSTEMS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
(Continued)

Kentucky Retirement Systems as a Whole (Continued)

Table 1
Plan Net Position
(In Millions)

	Pension Funds			Insurance Fund			Total		
	2014	2013	2012	2014	2013	2012	2014	2013	2012
Cash & Invest.	$ 12,758.2	$ 12,431.7	$ 11,922.7	$ 4,392.4	$ 3,992.1	$ 3,243.5	$ 17,150.6	$ 16,423.8	$ 15,166.2
Receivables	750.2	136.1	145.6	289.3	49.1	71.9	1,039.5	185.2	217.5
Equip/Int Assets, net of dep/amort.	10.5	16.1	13.8				10.5	16.1	13.8
Total Assets	13,518.9	12,583.9	12,082.1	4,681.7	4,041.2	3,315.4	18,200.6	16,625.1	15,397.5
Total Liabilities	(1,503.0)	(1,430.8)	(1,328.1)	(527.3)	(519.3)	(226.0)	(2,030.3)	(1,950.1)	(1,554.1)
Plan Net Position	$ 12,015.9	$ 11,153.1	$ 10,754.0	$ 4,154.4	$ 3,521.9	$ 3,089.4	$ 16,170.3	$ 14,675.0	$ 13,843.4

Table 2
Changes in Plan Net Position
(In Millions)

	Pension Funds			Insurance Fund			Total		
	2014	2013	2012	2014	2013	2012	2014	2013	2012
Additions:									
Member Cont.	$ 275.0	$ 276.3	$ 274.1	$ -	$ -	$ -	$ 275.0	$ 276.3	$ 274.1
Employer Cont.	768.3	741.8	591.4	397.4	447.3	436.2	1,165.7	1,189.1	1,027.6
Heath Ins. Cont.	12.4	9.1	7.3				12.4	9.1	7.3
Premiums Rec'd				2.4	26.3	28.4	2.4	26.3	28.4
Retired Remp Ins.				5.6	5.8	6.3	5.6	5.8	6.3
Medicare Subsidy					11.2	17.8		11.2	17.8
Invest. Inc. (net)	1,643.0	1,140.8	(28.5)	527.1	313.6	(55.3)	2,170.1	1,454.4	(83.8)
Total Additions	2,698.7	2,168.0	844.3	932.5	804.2	433.4	3,631.2	2,972.2	1,277.7
Deductions:									
Benefit payments	1,769.7	1,706.2	1,649.2				1,769.7	1,706.2	1,649.2
Refunds	33.6	32.2	31.0				33.6	32.2	31.0
Administrative Ex.	32.6	30.5	27.8	1.6	9.8	11.9	34.2	40.3	39.7
Healthcare Costs				298.4	361.9	380.4	298.4	361.9	380.4
Total Deductions	1,835.9	1,768.9	1,708.0	300.0	371.7	392.3	2,135.9	2,140.6	2,100.3
Inc. (Decrease) in Plan Net Position	$ 862.8	$ 399.1	$ (863.7)	$ 632.5	$ 432.5	$ 41.1	$ 1,495.3	$ 831.6	$ (822.6)

Net position of the pension funds increased by $862.8 million ($12,015.9 million compared to $11,153.1 million). All of these assets are restricted in use to provide monthly retirement allowances to members who contributed to the pension funds as employees and their beneficiaries. Net position of the insurance fund increased by $632.5 million ($4,154.4 million compared to $3,521.9 million). All of these assets are restricted in use to provide hospital and medical insurance benefits to members of the pension funds who receive a monthly retirement allowance.

Pension Fund Activities

Member contributions decreased by $1.3 million. This is due to the cessation of contributions from Seven Counties Services, Inc., a former member employer, as well as a decrease in service purchases. Retirement contributions are calculated by applying a percentage factor to salary and are remitted by each employer on behalf of the member. Nonhazardous members pay pension contributions of 5% of creditable compensation and hazardous members contribute 8% of creditable compensation. Members may also pay contributions to repurchase previously refunded service credit or to purchase various types of elective service credit.

KENTUCKY RETIREMENT SYSTEMS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
(Continued)

Pension Fund Activities (Continued)

Employer contributions increased by $26.5 million due to the rise in employer contribution rate applied to covered payroll.

Net investment income increased by $502 million. This is illustrated in Table 3. The pension funds experienced an increase in income primarily due to the gain on the sale of investments.

Table 3 Investment Income (Loss) - Pension	In Millions 2014	 2013	 2012
Increase (decrease) in fair value of investments	$ 489	$ 426	$ (238)
Investment income net of investment expense	281	250	232
Gain (loss) on sale of investments	873	465	(23)
Net investment income (loss)	$ 1,643	$ 1,141	$ (29)

Pension fund deductions increased by $67.0 million caused principally by an increase of $63.5 million in benefit payments. Refunds of member contributions increased by $1.5 million.

Insurance Fund Activities

Employer contributions paid into the insurance fund decreased by $49.9 million over the prior fiscal year. This decrease is a result of the reduction in the employer contribution rate applied to CERS Non-hazardous and Hazardous covered payrolls, as well as the loss of insurance contributions from Seven Counties Services, Inc.

Net investment income increased $213 million. This increase in net investment income is due primarily to the increase in the fair value of investments. This is illustrated in Table 4 as follows:

Table 4 Investment Income (Loss) - Insurance	In Millions 2014	 2013	 2012
Increase (decrease) in fair value of investments	$ 288	$ 125	$ (21)
Investment income net of investment expense	81	81	63
Gain (loss) on sale of investments	157	108	(97)
Net investment income (loss)	$ 527	$ 314	$ (55)

Insurance fund deductions decreased by $71.7 million due to the cessation of the self funding plan.

Historical Trends

Accounting standards require that the Statement of Net Position state asset value at fair value and include only benefits and refunds due plan members and beneficiaries and accrued investment and administrative expense as of the reporting date. Information regarding the actuarial funding status of the Pension and Insurance Funds is provided in the Schedules of Funding Progress on pages 69-74. The asset value stated in the Schedules of Funding Progress is the actuarial value of assets. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the investment return assumption. The amount recognized each year is 20% of the difference between market value and expected market value. The actuarial accrued liability is calculated using the entry age normal cost funding method. This actuarial accrued liability is the measure of the cost of benefits that have been earned to date by Kentucky Retirement Systems' members, but not yet paid. The difference in value between the actuarial accrued liability and the actuarial value of assets is defined as the unfunded actuarial accrued liability.

The unfunded actuarial accrued liability in the pension plans increased by $327.2 million for a total unfunded amount of $14,830.1 million as of June 30, 2014, compared to an unfunded amount of $14,502.9 million as of June 30, 2013. In recent years, funding levels for the pension funds have fallen significantly due to investment returns less than the actuarially assumed rate and higher than anticipated retirement rates. In addition, KERS, KERS Hazardous, and SPRS are funded less than the actuarially determined rate. Within the KERS and SPRS systems, employer contribution rate reductions enacted by the Kentucky General Assembly have limited the Systems' ability to correct the declining funding levels.

The insurance plan's unfunded actuarial accrued liability as of June 30, 2014, decreased to $2,943.6 million from $3,092.1 million as of June 30, 2013. This is a decrease in the unfunded actuarial accrued liability of $148.5 million. This decrease is due to the change for the Medicare-eligible retirees from the self-insured health plans to fully insured Medicare Advantage plans administered by Humana.

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

COMBINING FINANCIAL STATEMENTS

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENT OF PLAN NET POSITION-PENSION FUNDS
As of June 30, 2014 (with Comparative Totals as of June 30, 2013)
(Dollars in Thousands)

	2014						2013
	KERS Hazardous	KERS Non-Hazardous	CERS Hazardous	CERS Non-Hazardous	SPRS	Total	Total
ASSETS							
Cash and Short-Term Investments							
Cash	$ 117	$ 1,408	$ 222	$ 1,724	$ 273	$ 3,744	$ 5,712
Short-Term Investments	21,453	109,678	60,761	238,111	10,980	440,983	419,181
Total Cash and Short-Term Investments	21,570	111,086	60,983	239,835	11,253	444,727	424,893
Receivables							
Contributions	4,398	36,521	12,765	51,683	2,683	108,050	102,303
Investment Income	29,441	153,768	110,363	334,389	14,140	642,101	33,759
Total Receivables	33,839	190,289	123,128	386,072	16,823	750,151	136,062
Investments, at fair value							
Corporate and Government Bonds	135,640	702,249	534,434	1,616,383	62,596	3,051,302	3,520,528
Absolute Return	61,379	302,079	219,359	690,883	29,497	1,303,197	
Private Equities	61,393	394,632	197,409	605,579	28,453	1,287,466	
Derivatives	195	811	723	2,233	89	4,051	
Equity Contracts							251
Interest Rate Contracts							30,596
Foreign Exchange Contracts							12,995
Swaps							4,030
Options							963
Corporate Stocks	254,625	932,372	982,307	3,072,452	116,524	5,358,280	6,464,253
Mortgages							371,940
Real Estate	22,586	89,558	74,546	230,961	9,455	427,106	174,944
Total Investments, at fair value	535,818	2,421,701	2,008,778	6,218,491	246,614	11,431,402	10,580,500
Securities Lending Collateral Invested	41,482	184,071	154,899	482,685	18,960	882,097	1,426,438
Equipment (net of accumulated depreciation)	7	70	12	131	1	221	3,896
Intangible Assets (net of accumulated amortization)	301	3,505	494	5,965	53	10,318	12,194
Total Assets	633,017	2,910,722	2,348,294	7,333,179	293,704	13,518,916	12,583,983
LIABILITIES							
Accounts Payable	1,990	2,138	1,186	3,340	282	8,936	4,363
Investment Accounts Payable	28,061	146,223	105,207	319,007	13,488	611,986	
Securities Lending Collateral Obligations	41,482	184,071	154,899	482,685	18,960	882,097	1,426,438
Total Liabilities	71,533	332,432	261,292	805,032	32,730	1,503,019	1,430,801
Plan Net Position for Pension Benefits	$ 561,484	$ 2,578,290	$ 2,087,002	$ 6,528,147	$ 260,974	$ 12,015,897	$ 11,153,182

The accompanying notes are an integral part of the combining financial statements.

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENT OF CHANGES IN PLAN NET POSITION-PENSION FUNDS
For the Fiscal Year Ended June 30, 2014 (with Comparative Totals for the Fiscal Year Ended June 30, 2013)
(Dollars in Thousands)

	2014						2013
	KERS Hazardous	KERS Non-Hazardous	CERS Hazardous	CERS Non-Hazardous	SPRS	Total	Total
ADDITIONS							
Members' Contributions	$ 11,995	$ 92,941	$ 42,631	$ 122,459	$ 5,006	$ 275,032	$ 276,346
Employers' Contributions	11,671	296,836	115,240	324,231	20,279	768,257	741,763
Health Insurance Contributions (HB1)	551	4,546	1,091	6,109	70	12,367	9,187
Total Contributions	24,217	394,323	158,962	452,799	25,355	1,055,656	1,027,296
Investment Income							
From Investing Activities:							
Net Appreciation in							
Fair Value of Investments	66,475	265,388	241,913	757,252	30,912	1,361,940	890,641
Interest/Dividends	16,335	80,939	54,124	161,830	10,399	323,627	285,999
Total Investing Activities Income	82,810	346,327	296,037	919,082	41,311	1,685,567	1,176,640
Investment Expense	2,261	9,153	8,221	25,695	1,020	46,350	41,127
Net Income from Investing Activities	80,549	337,174	287,816	893,387	40,291	1,639,217	1,135,513
From Securities Lending Activities:							
Securities Lending Income	181	852	702	2,243	88	4,066	5,922
Securities Lending Expense:							
Security Borrower (Income) Rebates	(25)	(30)	(91)	(277)	(10)	(433)	(224)
Security Lending Agent Fees	31	134	119	376	15	675	865
Net Income from Securities Lending Activities	175	748	674	2,144	83	3,824	5,281
Total Net Investment Income	80,724	337,922	288,490	895,531	40,374	1,643,041	1,140,794
Total Additions	104,941	732,245	447,452	1,348,330	65,729	2,698,697	2,168,090

The accompanying notes are an integral part of the combining financial statements.

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENT OF CHANGES IN PLAN NET POSITION-PENSION FUNDS
For The Fiscal Year Ended June 30, 2014 (with Comparative Totals for the Fiscal Year Ended June 30, 2013)
(Dollars in Thousands)
(Continued)

	2014						2013
	KERS Hazardous	KERS Non-Hazardous	CERS Hazardous	CERS Non-Hazardous	SPRS	Total	Total
DEDUCTIONS							
Benefit Payments	54,321	889,936	189,635	582,850	53,026	1,769,768	1,706,220
Refunds	2,830	13,627	2,665	14,286	213	33,621	32,164
Administrative Expenses	898	11,145	1,721	18,615	214	32,593	30,581
Total Deductions	58,049	914,708	194,021	615,751	53,453	1,835,982	1,768,965
Net Increase (Decrease) in Plan Net Position	46,892	(182,463)	253,431	732,579	12,276	862,715	399,125
Plan Net Position for Pension Benefits							
Beginning of Year	514,592	2,760,753	1,833,571	5,795,568	248,698	11,153,182	10,754,057
End of Year	$ 561,484	$ 2,578,290	$ 2,087,002	$ 6,528,147	$ 260,974	$ 12,015,897	$ 11,153,182

The accompanying notes are an integral part of the combining financial statements.

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENT OF PLAN NET POSITION-INSURANCE FUND
As of June 30, 2014 (with Comparative Totals as of June 30, 2013)
(Dollars in Thousands)

	2014						2013
	KERS Hazardous	KERS Non-Hazardous	CERS Hazardous	CERS Non-Hazardous	SPRS	Total	Total
ASSETS							
Cash and Short-Term Investments							
Cash	$ 50	$ 101	$ 2	$ 101	$ 100	$ 354	$ 1,423
Short-Term Investments	14,788	31,821	28,645	57,968	5,467	138,689	163,336
Medicare Drug Deposit	10	20	23	42	5	100	102
Total Cash and Short-Term Investments	14,848	31,942	28,670	58,111	5,572	139,143	164,861
Receivables							
Contributions	2,194	14,398	5,222	13,617	1,237	36,668	38,995
Investment Income	27,308	39,256	62,179	113,965	9,969	252,677	10,123
Total Receivables	29,502	53,654	67,401	127,582	11,206	289,345	49,118
Investments, at fair value							
Corporate and Government Bonds	150,261	224,946	359,809	652,955	57,459	1,445,430	1,203,107
Derivatives	91	111	225	405	36	868	
Private Equities	27,003	39,791	68,507	123,385	12,155	270,841	
Absolute Return	45,241	67,749	108,162	191,587	17,270	430,009	
Equity Contracts							69
Interest Rate Contracts							5,561
Swaps							1,488
Foreign Exchange Contracts							3,415
Options							279
Corporate Stocks	175,794	243,662	417,006	760,918	64,359	1,661,739	1,945,363
Mortgages							103,488
Real Estate	16,039	21,459	38,076	69,293	6,138	151,005	53,303
Total Investments, at fair value	414,429	597,718	991,785	1,798,543	157,417	3,959,892	3,316,073
Security Lending Collateral Invested	8,470	66,345	44,714	169,211	4,630	293,370	511,108
Total Assets	467,249	749,659	1,132,570	2,153,447	178,825	4,681,750	4,041,160
LIABILITIES							
Accounts Payable	2	9	6	28	2	47	8,158
Investment Accounts Payable	25,252	36,400	57,547	105,497	9,235	233,931	
Securities Lending Collateral Obligations	8,470	66,345	44,714	169,211	4,630	293,370	511,108
Total Liabilities	33,724	102,754	102,267	274,736	13,867	527,348	519,266
Plan Net Position for Insurance Benefits	$ 433,525	$ 646,905	$ 1,030,303	$ 1,878,711	$ 164,958	$ 4,154,402	$ 3,521,894

The accompanying notes are an integral part of the combing financial statements.

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENT OF CHANGES IN PLAN NET POSITION-INSURANCE FUND
For the Fiscal Year Ended June 30, 2014 (with Comparative Totals for the Fiscal Year Ended June 30, 2013)
(Dollars in Thousands)

	2014						2013
	KERS Hazardous	KERS Non-Hazardous	CERS Hazardous	CERS Non-Hazardous	SPRS	Total	Total
ADDITIONS							
Employers' Contributions	$ 23,336	$ 164,176	$ 74,265	$ 121,160	$ 14,498	$ 397,435	$ 447,338
Employer Group Waiver Plan		8		6		14	11,189
Premiums Received from Retirees	38	917	31	1,450	11	2,447	26,346
Retired Reemployed Healthcare (HB1)	538	2,434	527	2,117	(5)	5,611	5,816
Total Contributions	23,912	167,535	74,823	124,733	14,504	405,507	490,689
Investment Income							
From Investing Activities:							
Net Appreciation in							
Fair Value of Investments	43,411	83,783	105,346	195,952	17,168	445,660	232,863
Interest/Dividends	10,293	14,724	23,681	43,178	3,937	95,813	88,645
Total Investing Activities Income	53,704	98,507	129,027	239,130	21,105	541,473	321,508
Investment Expense	1,622	1,929	4,075	7,388	647	15,661	9,599
Net Income from Investing Activities	52,082	96,578	124,952	231,742	20,458	525,812	311,909
From Securities Lending Activities:							
Securities Lending Income	144	175	354	638	54	1,365	2,008
Securities Lending Expense:							
Security Borrower (Income) Rebates	(11)	(14)	(28)	(54)	(5)	(112)	15
Security Lending Agent Fees	23	30	57	103	9	222	282
Net Income from Securities Lending Activities	132	159	325	589	50	1,255	1,711
Total Net Investment Income	52,214	96,737	125,277	232,331	20,508	527,067	313,620
Total Additions	76,126	264,272	200,100	357,064	35,012	932,574	804,309

The accompanying notes are an integral part of the combing financial statements.

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENT OF CHANGES IN PLAN NET POSITION-INSURANCE FUND
For the Fiscal Year Ended June 30, 2014 (with Comparative Totals for the Fiscal Year Ended June 30, 2013)
(Dollars in Thousands)
(Continued)

	2014						2013
	KERS Hazardous	KERS Non-Hazardous	CERS Hazardous	CERS Non-Hazardous	SPRS	Total	Total
DEDUCTIONS							
Healthcare Premiums Subsidies	15,448	111,051	60,522	92,637	12,584	292,242	283,118
Administrative Fees	77	719	273	488	57	1,614	9,758
Excise Tax	1	17	1	20	1	40	
Self Funding Insurance Costs	(42)	1,620	321	4,168	103	6,170	78,852
Total Deductions	15,484	113,407	61,117	97,313	12,745	300,066	371,728
Net Increase in Plan Assets	60,642	150,865	138,983	259,751	22,267	632,508	432,581
Plan Net Position for Insurance Benefits							
Beginning of Year	372,883	496,040	891,320	1,618,960	142,691	3,521,894	3,089,313
End of Year	$ 433,525	$ 646,905	$ 1,030,303	$ 1,878,711	$ 164,958	$ 4,154,402	$ 3,521,894

The accompanying notes are an integral part of the combing financial statements.

NOTES TO COMBINING FINANCIAL STATEMENTS

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014

NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

Organization

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

The Board consists of: Thomas K. Elliott, Chair, Governor Appointee; Daniel Bauer, PhD, Vice Chair, Governor Appointee; Mike Cherry, Governor Appointee; Edwin Davis, elected by CERS; J.T. Fulkerson, Governor Appointee; Joseph Hardesty, Governor Appointee; Vince Lang, elected by KERS; Tim Longmeyer, Personnel Secretary; Randy J. Overstreet, elected by SPRS; Mary Helen Peter, elected by KERS; David Rich, elected by CERS; Randy K. Stevens, Governor Appointee; and, William Summers, elected by CERS.

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

Basis of Accounting

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

Method Used to Value Investments

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Short-term investments are reported at cost, which approximates fair value. See Note D for further discussion of fair value measurements. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Gain (loss) on investments includes KRS' gains and losses on investments bought and sold as well held during the fiscal year.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Equipment

Equipment is valued at historical cost and depreciation is computed utilizing the straight-line method over the estimated useful lives of the assets ranging from three to ten years. Improvements, which increase the useful life of the equipment, are capitalized. Maintenance and repairs are charged to expense as incurred. The capitalization threshold used in fiscal years 2014 and 2013 was $3,000 (see Note J for further information).

Intangible Assets

Intangible assets, currently computer software, are valued at historical cost and amortization is computed utilizing the straight-line method over the estimated useful lives of the assets which is ten years. The capitalization threshold used in fiscal years 2014 and 2013 was $3,000 (see Note K for further information).

Contributions Receivable

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

Investment Income/Receivable/Payable

Due to the timing of receiving partnership financial information, the fair values of the investments in certain limited partnerships have been estimated using the net asset value of the ownership interest in partners' capital as of March 31 of each fiscal year. KRS management will monitor differences in the fair values of these investments between March 31 and June 30, of each fiscal year, and will disclose any and all material differences.

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

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Payment of Benefits

Benefits are recorded when paid.

Expense Allocation

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

Component Unit

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

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

Reclassifications

Certain amounts in the 2013 combining financial statements have been reclassified to conform to the 2014 presentation with no impact on total assets, liabilities, plan net position or changes in plan net position.

Recent Accounting Pronouncements

In June 2012, the Governmental Accounting Standards Board, (GASB) issued Statement No. 67, *Financial Reporting for Pension Plans-an amendment of GASB Statement No. 25.* The objective of this Statement was to improve financial reporting by state and local governmental pension plans. The Statement required defined benefit pension plans to present two financial statements – a state of fiduciary net position and a statement of changes in fiduciary net position. In addition, the Statement required that notes to the financial statements include descriptive information, such as the types of benefits provided, the classes of plan members covered, and the composition of the pension plan's Board, among other detailed requirements. KRS adopted the requirements of this Statement. It has only impacted the pension funds. The insurance fund was not impacted and remains consistent with fiscal 2013.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Recent Accounting Pronouncements, (Continued)

In June 2012, the GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions-an Amendment of GASB Statement No. 27*. The objective of this Statement is to improve financial reporting by state and local governmental pension plans. In addition, it requires the liability of the employers and non-employer contributing entities to employees for defined benefit pensions (net pension liability) to be measured as the portion of the present value of projected benefit payments to be provided through the pension plan to current active and inactive employees that is attributed to those employees' past periods of service (total pension liability), less the amount of the pension plan's fiduciary net position. In addition, this Statement requires additional changes to the Required Supplementary Information, among other extensive changes. This Statement becomes effective for the fiscal year beginning July 1, 2014. This Statement will impact KRS and will be implented in fiscal 2015.

In November 2013, the GASB issued Statement No. 71, *Pension Transition for Contributions made Subsequent to the Measurement Date-an Amendment of GASB Statement No. 68*. The objective of this Statement is to address an issue regarding application of the transition provisions of GASB Statement No. 68. The issue relates to amounts associated with contributions, if any, made by a state or local government employer or non-employer contributing entity to a defined benefit pension plan after the measurement date of the government's beginning net pension liability. This Statement becomes effective for the fiscal year beginning July 1, 2014. This Statement will impact KRS and will be implemented in fiscal 2015.

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

Membership in each retirement plan consisted of the following at June 30, 2014 and 2013:

KENTUCKY EMPLOYEES RETIREMENT SYSTEM						
	2014			2013		
Number of Members	Non-Hazardous Position Employees	Hazardous Position Employees	Total	Non-Hazardous Position Employees	Hazardous Position Employees	Total
Retirees and Beneficiaries Receiving Benefits	38,022	2,467	40,489	37,240	2,312	39,552
Inactive Memberships	41,213	3,318	44,531	40,375	2,882	43,257
Active Plan Members	40,500	4,094	44,594	40,710	4,057	44,767
Total	119,735	9,879	129,614	118,325	9,251	127,576
Number of Participating Employers			354			348

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

COUNTY EMPLOYEES RETIREMENT SYSTEM

	2014			2013		
Number of Members	Non-Hazardous Position Employees	Hazardous Position Employees	Total	Non-Hazardous Position Employees	Hazardous Position Employees	Total
Retirees and Beneficiaries Receiving Benefits	46,112	6,066	52,178	44,164	5,840	50,004
Inactive Memberships	70,231	2,038	72,269	67,013	1,956	68,969
Active Plan Members	82,494	9,189	91,683	82,631	9,069	91,700
Total	198,837	17,293	216,130	193,808	16,865	210,673
Number of Participating Employers			1,137			1,126

STATE POLICE RETIREMENT SYSTEM

	2014	2013
Number of Members	Hazardous Position Employees	Hazardous Position Employees
Retirees and Beneficiaries Receiving Benefits	1,279	1,240
Inactive Memberships	239	236
Active Plan Members	861	901
Total	2,379	2,377
Number of Participating Employers	1	1

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND

Hospital and medical contracts consisted of the following at June 30, 2014 and 2013:

	2014					2013				
	Single	Couple/ Family	Parent	Medicare Without Perscription	Medicare With Perscription	Single	Couple/ Family	Parent	Medicare Without Perscription	Medicare With Perscription
KERS Non-Hazardous	9,491	797	506	1,370	17,738	9,364	1,276	618	1,474	16,834
KERS Hazardous	647	448	110	56	1,104	625	451	106	60	985
CERS Non-Hazardous	7,843	546	278	2,583	20,200	7,652	857	340	2,707	18,824
CERS Hazardous	1,447	2,184	432	89	2,510	1,425	2,155	400	79	2,324
SPRS	263	444	78	20	712	283	421	76	20	682
Totals	19,691	4,419	1,404	4,118	42,264	19,349	5,160	1,540	4,340	39,649

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

Non-Hazardous Employees Pension Plan

Plan Description - KERS is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in non-hazardous duty positions of any state department, board, or agency directed by Executive Order to participate in KERS. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Prior to July 1, 2009, cost-of-living adjustments (COLA) were provided annually equal to the percentage increase in the annual average of the consumer price index for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. Effective July 1, 2009, and on July 1 of each year thereafter, the COLA is limited to 1.5% provided the recipient has been receiving a benefit for at least 12 months prior to the effective date of the COLA. If the recipient has been receiving a benefit for less than 12 months prior to the effective date of the COLA, the increase shall be reduced on a pro-rata basis for each month the recipient has not been receiving benefits in the 12 months preceding the effective date of the COLA. The Kentucky General Assembly reserves the right to suspend or reduce the COLA if, in its judgment, the welfare of the Commonwealth so demands. On July 1, 2013, the COLA was not granted.

Contributions - For the fiscal years ended June 30, 2014 and 2013, plan members who began participating prior to September 1, 2008, were required to contribute 5% of their annual creditable compensation. The Commonwealth was required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 61.565(3), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. However, formal commitment to provide the contributions by the employer is made

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

through the biennial budget. For the fiscal years ended June 30, 2014 and 2013, participating employers contributed 26.79% and 23.61%, respectively, of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal years ended June 30, 2014 and 2013, were 45.28% and 44.55%, respectively, of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings.

In accordance with House Bill 1, signed by the Governor on June 27, 2008, plan members who began participating on, or after, September 1, 2008, were required to contribute a total of 6% of their annual creditable compensation. Five percent of the contribution was deposited to the member's account while the 1% was deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E). Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited. For plan members who began participating prior to September 1, 2008, their contributions remain at 5% of their annual creditable compensation.

In accordance with Senate Bill 2, signed by the Governor on April 4, 2013, plan members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and a defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Non-hazardous members contribute 5% of their annual creditable compensation and 1% to the health insurance fund which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. For non-hazardous members, their account is credited with a 4% employer pay credit. The employer pay credit represents a portion of the employer contribution.

Hazardous Employees Pension Plan
Plan Description - KERS is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in hazardous duty positions of any state department, board, or agency directed by Executive Order to participate in KERS. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Prior to July 1, 2009, COLAs were provided annually equal to the percentage increase in the annual average of the consumer price index for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. Effective July 1, 2009, and on July 1 of each year thereafter, the COLA is limited to 1.5% provided the recipient has been receiving a benefit for at least 12 months prior to the effective date of the COLA. If the recipient has been receiving a benefit for less than 12 months prior to the effective date of the COLA, the increase shall be reduced on a pro-rata basis for each month the recipient has not been receiving benefits in the 12 months preceding the effective date of the COLA. The Kentucky General Assembly reserves the right to suspend or reduce the COLA if, in its judgment, the welfare of the Commonwealth so demands. On July 1, 2013, the COLA was not granted.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

Contributions - For the fiscal years ended June 30, 2014 and 2013, plan members who began participating prior to September 1, 2008, were required to contribute 8% of their annual creditable compensation. The Commonwealth was required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 61.565(3), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding the July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. However, formal commitment to provide the contributions by the employer is made through the biennial budget. For the fiscal years ended June 30, 2014 and 2013, participating employers contributed 32.21% and 29.79%, respectively, of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal years ended June 30, 2014 and 2013, were 28.84% and 35.89%, respectively, of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings.

In accordance with House Bill 1, signed by the Governor on June 27, 2008, plan members who began participating on, or after, September 1, 2008, were required to contribute a total of 9% of their annual creditable compensation. Eight percent of the contribution was deposited to the member's account while the 1% was deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E). Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited. For plan members who began participating prior to September 1, 2008, their contributions remain at 8% of their annual creditable compensation.

In accordance with Senate Bill 2, signed by the Governor on April 4, 2013, plan members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Hazardous members contribute 8% of their annual creditable compensation and 1% to the health insurance fund which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. For hazardous members, their account is credited with a 7.5% employer pay credit. The employer pay credit represents a portion of the employer contribution.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

COUNTY EMPLOYEES RETIREMENT SYSTEM

Non-Hazardous Employees Pension Plan
Plan Description - CERS is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in non-hazardous duty positions of each participating county, city, and school board, and any additional eligible local agencies electing to participate in CERS. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Prior to July 1, 2009, COLAs were provided annually equal to the percentage increase in the annual average of the consumer price index for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. Effective July 1, 2009, and on July 1 of each year thereafter, the COLA is limited to 1.5% provided the recipient has been receiving a benefit for at least 12 months prior to the effective date of the COLA. If the recipient has been receiving a benefit for less than 12 months prior to the effective date of the COLA, the increase shall be reduced on a pro-rata basis for each month the recipient has not been receiving benefits in the 12 months preceding the effective date of the COLA. The Kentucky General Assembly reserves the right to suspend or reduce the COLA if, in its judgment, the welfare of the Commonwealth so demands. On July 1, 2013, the COLA was not granted.

Contributions - For the fiscal years ended June 30, 2014 and 2013, plan members who began participating prior to September 1, 2008, were required to contribute 5% of their annual creditable compensation. The participating employers were required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 78.545(33), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding the July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. For the fiscal years ended June 30, 2014 and 2013, participating employers contributed 18.89% and 19.55%, respectively, of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal years ended June 30, 2014 and 2013, were 18.89% and 19.55%, respectively. Administrative costs of KRS are financed through employer contributions and investment earnings.

In accordance with House Bill 1, signed by the Governor on June 27, 2008, plan members who began participating on, or after, September 1, 2008, were required to contribute a total of 6% of their annual creditable compensation. Five percent of the contribution was deposited to the member's account while the 1% was deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E). Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited. For plan members who began participating prior to September 1, 2008, their contributions remain at 5% of their annual creditable compensation.

In accordance with Senate Bill 2, signed by the Governor on April 4, 2013, plan members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and a defined contribution plan.

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

Members in the plan contribute a set percentage of their salary each month to their own account. Non-hazardous members contribute 5% of their annual creditable compensation and 1% to the health insurance fund which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. For non-hazardous members, their account is credited with a 4% employer pay credit. The employer pay credit represents a portion of the employer contribution.

Hazardous Employees Pension Plan

Plan Description - CERS is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in hazardous duty positions of each participating county, city and school board, and any additional eligible local agencies electing to participate in CERS. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Prior to July 1, 2009, COLAs were provided annually equal to the percentage increase in the annual average of the consumer price index for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. Effective July 1, 2009, and on July 1 of each year thereafter, the COLA is limited to 1.5% provided the recipient has been receiving a benefit for at least 12 months prior to the effective date of the COLA. If the recipient has been receiving a benefit for less than 12 months prior to the effective date of the COLA, the increase shall be reduced on a pro-rata basis for each month the recipient has not been receiving benefits in the 12 months preceding the effective date of the COLA. The Kentucky General Assembly reserves the right to suspend or reduce the COLA if, in its judgment, the welfare of the Commonwealth so demands. On July 1, 2013, the COLA was not granted.

Contributions - For the fiscal years ended June 30, 2014 and 2013, plan members who began participating prior to September 1, 2008, were required to contribute 8% of their annual creditable compensation. The participating employers were required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 78.545(33), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding the July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. For the fiscal years ended June 30, 2014 and 2013, participating employers contributed 35.7% and 37.6%, respectively, of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal years ended June 30, 2014 and 2013, were 35.7% and 37.6%, respectively, of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings.

In accordance with House Bill 1, signed by the Governor on June 27, 2008, plan members who began participating on, or after, September 1, 2008, were required to contribute a total of 9% of their annual creditable compensation. Eight percent of the contribution was deposited to the member's account while the 1% was deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E).

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited. For plan members who began participating prior to September 1, 2008, their contributions remain at 8% of their annual creditable compensation.

In accordance with Senate Bill 2, signed by the Governor on April 4, 2013, plan members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Hazardous members contribute 8% of their annual creditable compensation and 1% to the health insurance fund which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. For hazardous members, their account is credited with a 7.5% employer pay credit. The employer pay credit represents a portion of the employer contribution.

STATE POLICE RETIREMENT SYSTEM

Plan Description - SPRS is a single-employer defined benefit pension plan that covers all full-time state troopers employed in a hazardous duty position by the Kentucky State Police. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Prior to July 1, 2009, COLAs were provided annually equal to the percentage increase in the annual average of the consumer price index for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. Effective July 1, 2009, and on July 1 of each year thereafter, the COLA is limited to 1.5% provided the recipient has been receiving a benefit for at least 12 months prior to the effective date of the COLA. If the recipient has been receiving a benefit for less than 12 months prior to the effective date of the COLA, the increase shall be reduced on a pro-rata basis for each month the recipient has not been receiving benefits in the 12 months preceding the effective date of the COLA. The Kentucky General Assembly reserves the right to suspend or reduce the COLA if, in its judgment, the welfare of the Commonwealth so demands. On July 1, 2013, the COLA was not granted.

Contributions - For the fiscal years ended June 30, 2014 and 2013, plan members who began participating prior to September 1, 2008, were required to contribute 8% of their annual creditable compensation. The Commonwealth was required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 16.545(18), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding the July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. However, formal commitment to provide the contributions by the employer is made through the biennial budget. For the fiscal years ended June 30, 2014 and 2013, the Commonwealth contributed 71.15% and 63.67%, respectively, of each employee's creditable compensation.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

The actuarially determined rates set by the Board for the fiscal years ended June 30, 2014 and 2013 were 96.52% and 103.41%, respectively, of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings.

In accordance with House Bill 1, signed by the Governor on June 27, 2008, plan members who began participating on, or after, September 1, 2008, were required to contribute a total of 9% of their annual creditable compensation. Eight percent of the contribution was deposited to the member's account while the 1% was deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E). Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited. For plan members who began participating prior to September 1, 2008, their contributions remain at 8% of their annual creditable compensation.

In accordance with Senate Bill 2, signed by the Governor on April 4, 2013, plan members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Hazardous members contribute 8% of their annual creditable compensation and 1% to the health insurance fund which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. For hazardous members, their account is credited with a 7.5% employer pay credit. The employer pay credit represents a portion of the employer contribution.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND

Plan Description - The Kentucky Retirement Systems Insurance Fund (Insurance Fund) was established to provide hospital and medical insurance for members receiving benefits from KERS, CERS, and SPRS. The Insurance Fund pays a prescribed contribution for whole or partial payment of required premiums to purchase hospital and medical insurance. For the fiscal year ended June 30, 2014, insurance premiums withheld from benefit payments for members of the systems were $24,002,506 and $1,117,614 for KERS non-hazardous and hazardous, respectively; $24,206,307 and $1,936,349 for CERS non-hazardous and hazardous, respectively; and, $177,804 for SPRS. For fiscal year 2013, insurance premiums withheld from benefit payments for members of KERS were $27,574,678 and $1,209,245 for KERS non-hazardous and KERS hazardous, respectively; $27,804,392 and $2,068,890 for CERS non-hazardous and CERS hazardous, respectively; and, $238,774 for SPRS. The Insurance Fund pays the same proportion of hospital and medical insurance premiums for the spouse and dependents of retired hazardous members killed in the line of duty. As of June 30, 2014, the Insurance Fund had 104,635 retirees and beneficiaries for whom benefits were available.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE B - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (CONTINUED)

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

Years of Service	% Paid by Insurance Fund
20 or More	100%
15 - 19	75%
10 - 14	50%
4 - 9	25%
Less Than 4	0%

As a result of House Bill 290 (2004 Kentucky General Assembly), medical insurance benefits are calculated differently for members who began participating on, or after, July 1, 2003. Once members reach a minimum vesting period of ten years, non-hazardous employees whose participation began on, or after, July 1, 2003 earn $10 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. Hazardous employees whose participation began on, or after, July 1, 2003 earn $15 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. Upon death of a hazardous employee, the employee's spouse receives $10 per month for insurance benefits for each year of the deceased employee's earned hazardous service. This dollar amount is subject to adjustment annually based on the retiree COLA, which is updated annually due to changes in the Consumer Price Index for all urban consumers. This benefit is not protected under the inviolable contract provisions of Kentucky Revised Statute 16.652, 61.692 and 78.852. The Kentucky General Assembly reserves the right to suspend or reduce this benefit if, in its judgment, the welfare of the Commonwealth so demands.

In prior years, the employers' required medical insurance contribution rate was being increased annually by a percentage that would result in advance-funding the medical liability on an actuarially determined basis using the entry age normal cost method within a 20-year period measured from 1987. In November 1992, the Board adopted a fixed percentage contribution rate and suspended future increases under the current medical premium funding policy until the next experience study could be performed. In May 1996, the Board adopted a policy to increase the insurance contribution rate by the amount needed to achieve the target rate for full entry age normal funding within 20 years.

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

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE C - CASH AND SHORT-TERM INVESTMENTS AND SECURITIES LENDING COLLATERAL

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

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

	2014	2013
Cash	$ 1,525,039	$ 2,519,457
Short-Term Investments	131,130,977	119,306,174
Securities Lending Collateral Invested	225,552,963	326,406,362
Total	$ 358,208,979	$ 448,231,993

COUNTY EMPLOYEES RETIREMENT SYSTEM

	2014	2013
Cash	$ 1,945,877	$ 3,030,064
Short-Term Investments	298,872,570	289,346,687
Securities Lending Collateral Invested	637,584,374	1,065,084,771
Total	$ 938,402,821	$ 1,357,461,522

STATE POLICE RETIREMENT SYSTEM

	2014	2013
Cash	$ 273,391	$ 162,872
Short-Term Investments	10,979,712	10,528,027
Securities Lending Collateral Invested	18,959,641	34,947,388
Total	$ 30,212,744	$ 45,638,287

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE C - CASH AND SHORT-TERM INVESTMENTS AND SECURITIES LENDING COLLATERAL (CONTINUED)

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND

	2014	2013
Cash	$ 354,145	$ 1,422,780
Short-Term Investments	138,688,699	163,336,293
Medicare Drug Deposit	100,039	100,691
Securities Lending Collateral Invested	293,369,587	511,107,721
Total	$ 432,512,470	$ 675,967,485

NOTE D - INVESTMENTS

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

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

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

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

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D – INVESTMENTS (CONTINUED)

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

Cash Equivalent Securities - The following short-term investment vehicles are considered acceptable:

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

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

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

Investment Expenses – In accordance with GASB Statement No. 25, *Financial Reporting for Defined Pension Benefit Plans and Note Disclosures for Defined Contribution Plans*, KRS has exercised professional judgment to report investment expenses. It is not cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses.

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

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

In accordance with GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, KRS provides this additional disclosure regarding its derivatives:

As of June 30, 2014, KRS has the following derivative instruments outstanding:

Item	Type	Objective	Cost	Notional Cost	Market Value	Terms	Notional Market Value
Pension:							
A	Equity Private Placements	Hedge against changes in interest rates	$2,291,237	$0	$3,027,212	Various	$0
B	US Equity Index Futures	Hedge against the risk that interest rates will move in an adverse direction	$0	$6,639,010	$145,700	Various	$6,784,710
C	International Government Bond Futures	Hedge against sudden or dramatic shifts in interest rates	$0	($49,289,734)	($1,039,224)	Various	($50,328,958)
D	Interest Rate Swaps	Hedge against sudden or dramatic shifts in interest rates	$87,898	$0	$1,113,524	Various	$0
E	Credit Default Swaps	Hedge against sudden or dramatic shifts in interest rates	($892,077)	$0	$871,689	Various	$0
F	Treasury Notes	Hedge against sudden or dramatic shifts in interest rates	$0	($34,999,286)	($51,433)	Various	($35,050,719)
G	Treasury Bonds	Hedge against sudden or dramatic shifts in interest rates	$0	($3,201,879)	($17,183)	Various	($3,219,062)

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D-INVESTMENTS (CONTINUED)

Item	Type	Objective	Cost	Notional Cost	Market Value	Terms	Notional Market Value
Insurance:							
H	Equity Private Placements	Hedge against changes in interest rates	$869,759	$0	$1,157,266	Various	$0
I	US Equity Index Futures	Hedge against risk that interest rates will move in an adverse direction	$0	$5,353,003	$122,377	Various	$5,475,380
J	International Government Bond Futures	Hedge against sudden or dramatic shifts in interest rates	$0	($14,986,768)	($316,145)	Various	($15,302,913)
K	Interest Rate Swaps	Hedge against sudden or dramatic shifts interest rates	($438,660)	$0	($213,601)	Various	$0
L	Credit Default Swaps	Hedge against sudden or dramatic shifts in interest rates	($507,545)	$0	$155,993	Various	$0
M	Treasury Notes	Hedge against sudden or dramatic shifts in interest rates	$0	($19,783,259)	($33,982)	Various	($19,817,241)
N	Treasury Bonds	Hedge against sudden or dramatic shifts in interest rates	$0	($956,539)	($3,774)	Various	($960,313)

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

All of the above derivative instruments have various effective dates and maturity dates.

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

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

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

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

Risks:

Basis Risk: Derivative instruments B and I expose KRS to basis risk in that the value of the underlying equity index future may decrease in fair value relative to the cash market.

Interest Rate Risk: Derivative instruments A, C, D, E, F, G, H, J, K, L, M, and N expose KRS to interest rate risk in that changes in interest rates will adversely affect the fair values of KRS' financial instruments.

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

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

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

As of June 30, 2014 and 2013, deposits for KRS pension funds were $4,041,524 and $9,333,855, respectively. None of these balances were exposed to custodial credit risk as they were either insured or collateralized at required levels.

As of June 30, 2014 and 2013, deposits for KRS insurance fund were $1,445,674 and $1,430,267, respectively. None of these balances were exposed to custodial credit risk as they were either insured or collateralized at required levels.

Custodial Credit Risk for Investments - Custodial credit risk for investments is the risk that in the event of the failure of the counterparty to a transaction, KRS will not be able to recover the value of investments or collateral securities that are in the possession of an outside third party. KRS does not have an explicit policy with regards to Custodial Credit Risk for investments. As of June 30, 2014 and 2013, the following currencies were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in KRS' name. These funds are cash held by KRS' Global Managers and consist of various currencies.

Pension Funds	**2014**	**2013**
Foreign Currency	$9,692,881	$ 7,380,209
Insurance Fund		
Foreign Currency	$3,145,400	$ 2,352,683

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

Investment Summary

The following tables present a summary of the investments by type as of June 30, 2014 and 2013:

	2014	2013
Pension Funds		
US Gov't & Agency Fixed Income Securities	$ -	$ 1,582,604,644
US Corporate Fixed Income Securities		1,304,213,238
Municipal Debt Securities		70,363,221
Fixed Income Securities	3,051,301,974	
Short-Term Investments	440,983,259	419,180,889
Equity Securities	5,358,280,375	4,764,035,886
Private Equity Limited Partnerships	1,287,466,227	1,705,481,097
Real Estate	427,105,738	174,943,810
Derivatives	4,050,284	
Absolute Return	1,303,197,181	
Other*		978,860,163
	$ 11,872,385,038	$ 10,999,682,948

* As of June 30, 2014 and 2013, this balance consists of:

	2014	2013
Cash Collateral – US Dollars	$ -	$ 13,401,306
Sukuk***		263,923
Derivative Offsets:		
Equity Futures		(1,739,458)
Hedge Fund		988,790,368
Liabilities:		
Obligation to Return Cash Collateral - US Dollars		(21,855,976)
	$ -	$ 978,860,163

*** The Arabic name for financial certificates, but commonly refers to the Islamic equivalent of bonds; since fixed income interest bearing bonds are not permissible in Islam, Sukuk securities are structured to comply with Islamic Law and its investment principles, which prohibits the charging, or paying, of interest.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

	2014	2013
Insurance Fund		
US Gov't & Agency Fixed Income Securities	$ -	$ 555,483,396
US Corporate Fixed Income Securities		408,232,689
Municipal Debt Securities		14,780,723
Fixed Income Securities	1,445,430,202	
Short-Term Investments	138,688,699	163,336,293
Equity Securities	1,661,738,753	1,605,002,880
Private Equity Limited Partnerships	270,841,221	343,283,318
Real Estate	151,004,974	53,302,498
Derivatives	868,135	
Absolute Return	430,008,984	
Other**		336,086,682
	$ 4,098,580,968	$ 3,479,508,479

** As of June 30, 2014 and 2013, this balance consists of:

	2014	2013
Cash Collateral – US Dollars	$ -	$ 2,569,213
Derivative Offsets:		
Equity Futures		25,664,188
Hedge Fund		312,234,300
Obligation to Return Cash		(4,381,019)
	$ -	$ 336,086,682

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

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

- Bonds, notes or other obligations issued or guaranteed by the US Government, its agencies or instrumentalities are permissible investments and may be held without restrictions.

- Fixed income investments will be similar in type to those securities found in the KRS fixed income benchmarks and the characteristics of the KRS fixed income portfolio will be similar to the KRS fixed income benchmarks.

- The duration of the total fixed income portfolio shall not deviate from the KRS Fixed Income by more than 25%.

- The duration of the Treasury Inflation Protected Securities (TIPS) portfolio shall not deviate from the KRS Fixed Income Index by more than 25%.

- The amount invested in the debt of a single corporation shall not exceed 5% of the total market value of KRS' assets.

- No public fixed income manager shall invest more than 5% of the market value of assets held in any single issue short-term instrument, with the exception of US Government issued, guaranteed or agency obligations.

- The amount invested in SEC Rule 144a securities shall not exceed 15% of the market value of the aggregate market value of KRS' fixed income investments.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

The following table presents the KRS pension funds debt ratings as of June 30, 2014 and 2013:

Pension Funds
Debt Securities Investments at Fair Value
As of June 30, 2014 and 2013

Quality Rating	2014	2013
AAA	$ 40,306,583	$ 56,665,771
AA+	62,002,369	68,857,699
AA	21,388,493	19,419,263
AA-	27,797,954	30,605,331
A+	34,695,288	32,370,283
A	99,344,507	71,719,597
A-	117,151,936	109,560,109
BBB+	84,269,097	36,533,579
BBB	64,675,676	109,743,197
BBB-	89,120,107	81,558,127
BB+	87,235,873	62,890,911
BB	93,648,993	66,451,521
BB-	83,840,452	60,743,226
B+	75,094,584	82,924,826
B	84,811,455	77,704,921
B-	61,972,436	50,252,951
CCC+	42,517,725	41,097,638
CCC	11,865,038	17,224,076
CCC-	4,487,098	13,687,724
CC	1,925,471	4,457,848
D	6,999,911	3,937,401
NR	659,751,771	99,198,973
Total Credit Risk Debt Securities	1,854,902,817	1,197,604,972
Government Agencies	5,222,397	474,844,831
Government Mortgage-Backed Securities (GNMA)	179,134,299	338,663,465
Gov't Issued Commercial Mortgage Backed	4,479,667	9,811,110
Government Bonds	385,836,479	34,674,668
Indexed Linked Bonds	621,726,315	708,142,577
Total Debt Securities	$ 3,051,301,974	$ 2,763,741,623

At both June 30, 2014 and 2013, the weighted average quality rating of the pension fund debt securities portfolio was AA+. As of June 30, 2014 and 2013, the KRS pension portfolio had $1,214,150,807 and $580,572,016, respectively, in debt securities rated below BBB-.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

The following table presents the KRS insurance fund debt ratings as of June 30, 2014 and 2013:

Insurance Fund
Debt Securities Investments at Fair Value
As of June 30, 2014 and 2013

Quality Rating	2014	2013
AAA	$ 12,231,453	$ 17,298,219
AA+	18,736,341	19,036,700
AA	6,724,487	7,906,648
AA-	7,319,989	4,369,454
A+	16,055,561	11,034,344
A	29,080,777	18,123,716
A-	38,388,115	29,449,395
BBB+	28,031,588	8,243,645
BBB	24,786,892	24,640,602
BBB-	28,672,541	25,801,896
BB+	29,313,139	22,285,959
BB	30,971,226	23,613,368
BB-	28,542,731	20,795,416
B+	27,461,463	25,323,893
B	30,109,234	19,984,139
B-	20,447,164	16,449,995
CC	623,198	816,507
CCC	2,695,453	5,087,979
CCC+	12,603,007	10,899,205
CCC-	1,145,250	3,039,033
D	2,556,978	1,088,434
NR	586,985,099	55,438,787
Total Credit Risk Debt Securities	983,481,686	370,727,334
Government Agencies	1,511,319	152,008,017
Government Mortgage-Backed Securities (GNMA)	65,071,852	97,015,116
Gov't Issued Commercial Mortgage Backed	1,497,608	3,007,215
Government Bonds	142,080,994	9,505,690
Indexed Linked Bonds	251,786,743	292,931,190
Total Debt Securities	$ 1,445,430,202	$ 925,194,562

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

As a result of the most recently approved Asset/Liability Modeling Study, the investment staff began to diversify the insurance fixed income allocation to mirror that of the pension funds. As part of this process, the TIPS allocation (previously the only fixed income exposure within the insurance portfolio) was moved to the newly created Real Return Asset Class.

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

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

- Bonds, notes or other obligations issued or guaranteed by the US Government, its agencies or instrumentalities are permissible investments and may be held without restrictions.

- Debt obligations of any single US Corporation shall be limited to a maximum of 5% of the total portfolio at market value.

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

The KRS pension fund benchmarks its fixed income securities portfolio to the Barclays US Universal Index. As of June 30, 2014 and 2013, the modified duration of the KRS pension fund fixed income benchmark was 5.37 and 5.38, respectively. At the same points in time, the modified duration of the KRS pension fund fixed income securities portfolio was 5.37 and 5.73, respectively.

The KRS insurance fund benchmarks its fixed income securities portfolio to the Barclays US Universal Index. As of June 30, 2014 and 2013, the modified duration of the KRS insurance fund fixed income benchmark was 5.37 and 5.38, respectively. At the same points in time, the modified duration of the KRS insurance fund fixed income securities portfolio was 3.99 and 5.91, respectively.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

KRS Pension Funds Interest Rate Risk

	2014	Weighted Average Effective Duration	2013	Weighted Average Effective Duration
Asset Backed Securities	$ 86,379,081	9.12	$ 44,213,100	2.71
Bank Loans	327,431,127	4.19	105,603,296	4.72
Collateralized Bonds	23,113,753	3.62	14,222,649	0.72
Commercial Mortgage Backed Securities	77,841,331	2.10	66,526,681	3.10
Commercial Paper			74,997,823	0.02
Corporate Bonds-Industrial	390,494,755	5.67	674,221,512	5.36
Corporate Bonds-Utilities	40,955,705	6.27		
Corporate Convertible Bonds			19,949,113	8.58
Government Agencies	65,501,546	4.75	34,674,668	5.12
Government Bonds	125,600,774	6.10	474,844,831	5.66
Government Mortgage Backed Securities	178,480,106	5.21	338,663,465	4.20
Government Issued Commercial Mortgage Backed Securities			9,811,110	2.66
Covered Bonds	878,873	1.80		
Indexed Linked Government Bonds			708,142,577	8.18
Municipal Bonds	79,048,655	10.31	70,363,221	10.29
Non-Government Backed Collateralized Mortgage Obligations			10,612,072	2.04
Supranational Bonds	6,341,105	1.82		
Treasuries	1,207,419,080	7.04		
Swaps	4,298,025	0.59		
Mutual Funds	396,848,860	-		
Other	40,669,198	3.96		
Short Term Bills/Notes			116,631,582	0.17
Sukuk*			263,923	6.55
Total	$ 3,051,301,974	5.37	$ 2,763,741,623	5.67

* The Arabic name for financial certificates, but commonly refers to the Islamic equivalent of bonds; since fixed income interest bearing bonds are not permissible in Islam, Sukuk securities are structured to comply with Islamic Law and its investment principles, which prohibits the charging, or paying, of interest.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

KRS Insurance Fund Interest Rate Risk

	2014	Weighted Average Effective Duration	2013	Weighted Average Effective Duration
Asset Backed Securities	$ 32,726,215	8.67	$ 14,649,066	3.18
Bank Loans	125,099,366	4.38	28,930,449	4.72
Collateralized Bonds	3,750,470	3.99	4,841,918	1.13
Commercial Mortgage Backed Securities	24,807,988	2.16	17,161,225	3.67
Commercial Paper			24,998,658	0.04
Corporate Bonds-Industrial	140,705,415	5.56	216,295,976	5.34
Corporate Bonds-Utilities	16,095,997	6.26		
Corporate Convertible Bonds			4,909,873	8.44
Government Agencies	15,681,837	4.90	9,505,690	5.46
Government Bonds	16,254,026	4.00	152,008,017	5.83
Government Mortgage Backed Securities	65,071,852	5.52	97,015,116	4.79
Covered Bonds	1,171,830	1.80		
Commercial Mortgage Backed Securities			3,007,215	2.72
Indexed Linked Government Bonds			292,931,190	8.25
Municipal/Provincial Bonds	17,791,073	9.00	14,780,723	9.60
Supranational Bonds	2,166,067	2.04		
Treasuries	464,396,484	7.01		
Swaps	391,233,379	-		
Mutual Funds	121,882,992	-		
Other	6,595,211	6.98		
Non-Government Backed Collateralized Mortgage Obligations			2,572,249	1.77
Short Term Bills/Notes			41,587,197	0.15
Total	$ 1,445,430,202	3.99	$ 925,194,562	5.92

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE D - INVESTMENTS (CONTINUED)

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

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

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

The dynamic currency hedging program previously run by Record Currency Management was terminated on November 3, 2011, and was completely unwound by October 2012.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

The following tables present KRS' exposure to foreign currency risk as of June 30, 2014 and 2013:

Pension Funds
Investments at Fair Value
June 30, 20143 and 2013

	2014	2013
Foreign Equities		
Australian Dollar	$ 63,542,348	$ 59,808,966
Brazilian Real	28,173,468	40,565,297
British Pound Sterling	225,259,654	191,809,147
Canadian Dollar	41,437,776	79,160,793
Chilean Peso	4,818,876	8,572,207
Chinese Yuan	4,109,501	3,921,175
Columbian Peso	4,865,113	4,030,792
Czech Koruna	1,662,246	3,152,676
Danish Krone	27,618,618	12,793,980
Euro	295,224,348	329,323,153
Hong Kong Dollar	45,368,576	96,949,251
Hungarian Forint	730,125	4,448,425
Indian Rupee	23,379,225	3,759,830
Indonesian Rupiah	12,326,348	7,187,236
Israeli Shekel	4,250,242	2,069,010
Japanese Yen	186,247,197	263,796,152
Malaysian Ringgit	6,116,803	5,704,224
Mexican Peso	27,518,975	22,181,651
New Zealand Dollar	13,863,381	7,500,911
Norwegian Krone	14,222,852	9,727,168
Peruvian Nuevo Sol	469,626	471,934
Philippine Peso	6,423,771	3,021,216
Polish Zloty	4,131,804	5,945,095
Russian Ruble	13,292,845	7,159,994
Singapore Dollar	15,472,920	19,834,359
South African Rand	9,392,321	23,424,203
South Korean Won	36,562,132	50,679,693
Swedish Krona	36,459,940	28,143,780
Swiss Franc	73,390,790	96,580,108
Taiwan Dollar New	24,529,304	35,426,792
Thai Bhat	8,824,588	5,867,698
Turkish Lira	6,681,457	4,549,826
Total Securities subject to Foreign Currency Risk	1,266,367,170	1,437,566,742
USD (securities held by International Investment Managers)	10,606,017,868	9,562,116,206
Total International Investment Securities	$ 11,872,385,038	$ 10,999,682,948

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

Insurance Fund
Investments at Fair Value
June 30, 2014 and 2013

	2014	2013
Foreign Equities		
Australian Dollar	$ 21,159,098	$ 17,372,842
Brazilian Real	9,868,083	11,659,097
British Pound Sterling	78,588,743	61,860,945
Canadian Dollar	15,048,631	25,663,239
Chilean Peso	1,575,128	2,724,948
Chinese Yuan	1,636,081	1,214,863
Columbian Peso	807,218	1,036,746
Czech Koruna	588,014	1,072,552
Danish Krone	9,378,996	4,233,231
Euro	99,813,747	105,942,398
Hong Kong Dollar	15,678,888	30,780,459
Hungarian Forint	286,753	1,415,885
Indian Rupee	8,667,608	1,149,108
Indonesian Rupiah	3,629,915	2,005,381
Israeli Shekel	1,372,593	639,441
Japanese Yen	67,029,052	84,659,071
Malaysian Ringgit	2,079,289	1,618,726
Mexican Peso	8,877,951	6,607,537
New Taiwan Dollar	8,240,119	11,121,400
New Zealand Dollar	5,220,476	2,131,571
Norwegian Krone	4,809,239	3,039,604
Peruvian Nuevo Sol		108,768
Philippine Peso	2,341,661	633,481
Polish Zloty	1,674,073	1,829,456
Russian Ruble	5,374,587	2,274,414
Singapore Dollar	5,421,756	6,063,920
South African Rand	3,143,309	7,537,217
South Korean Won	13,915,662	15,998,698
Swedish Krona	12,354,751	9,106,266
Swiss Franc	24,820,751	30,623,672
Thai Bhat	3,288,977	1,627,962
Turkish Lira	2,494,686	1,456,908
Total Securities subject to Foreign Currency Risk	439,185,835	455,209,806
USD (securities held by International Investment Managers)	3,659,395,133	3,024,298,673
Total International Investment Securities	$ 4,098,580,968	$ 3,479,508,479

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE D - INVESTMENTS (CONTINUED)

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

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

Pension Funds

KERS		CERS		SPRS
Non-Hazardous	Hazardous	Non-Hazardous	Hazardous	
15.50	15.65	15.56	15.50	15.66

Insurance Fund

KERS		CERS		SPRS
Non-Hazardous	Hazardous	Non-Hazardous	Hazardous	
14.28	15.14	15.02	15.00	15.03

NOTE E - SECURITIES LENDING TRANSACTIONS

Kentucky Revised Statutes Sections 61.650 and 386.020(2) permit the Pension and Insurance Funds to lend their securities to broker-dealers and other entities. The borrowers of the securities agree to transfer to the Funds' custodial banks either cash collateral or other securities with an initial fair value of 102% or 105% of the value of the borrowed securities. The borrowers of the securities simultaneously agree to return the borrowed securities in exchange for the collateral at a later date. Securities lent for cash collateral are presented as unclassified above in the schedule of custodial credit risk; securities lent for securities collateral are classified according to the category for the securities loaned. The types of securities lent include US Treasuries, US Agencies, US Corporate Bonds, US Equities, Global Fixed Income Securities, and Global Equities Securities. The *Statement of Investment Policy* does not address any restrictions on the amount of loans that can be made. At June 30, 2014, KRS had no credit risk exposure to borrowers because the collateral amounts received exceeded the amounts out on loan. The contracts with the custodial banks require them to indemnify KRS if the borrowers fail to return the securities and one or both of the custodial banks have failed to live up to their contractual responsibilities relating to the lending of securities.

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

NOTE F - RISK OF LOSS

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

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

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

NOTE G - CONTINGENCIES

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

NOTE H - INCOME TAX STATUS

The Internal Revenue Service has ruled that KRS qualifies under Section 401(a) of the Internal Revenue Code and is, generally, not subject to tax. KRS is subject to income tax on any unrelated business income; however, KRS had no unrelated business income in fiscal year 2014.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE I - DEFINED BENEFIT PENSION PLAN

All eligible employees of KRS participate in KERS (non-hazardous), a cost-sharing, multiple-employer defined pension plan that covers all regular full-time employees in non-hazardous positions of any Kentucky State Department, Board or Agency directed by Executive Order to participate in the system. The plan provides for retirement, disability and death benefits to plan members. Plan benefits are extended to beneficiaries of plan members under certain circumstances. Plan members who began participating prior to September 1, 2008, contributed 5% of creditable compensation for the periods ended June 30, 2014, 2013, and 2012. Plan members who began participating on, or after, September 1, 2008, contributed 6% of creditable compensation for the periods ended June 30, 2014, 2013, and 2012. Plan members who began participating on, or after, January 1, 2014, contributed 6% of creditable compensation for the period ended June 30, 2014. KRS contributed 26.79%, 23.61%, and 19.82%, of covered payroll for the periods ended June 30, 2014, 2013, and 2012, respectively.

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

	June 30,		
	2014	2013	2012
Covered Payroll	$13,916,055	$ 13,925,712	$ 13,784,847
Required Employer Contributions	3,722,937	3,271,165	2,726,780
Employer Percentage Contributed	100%	100%	100%

NOTE J - EQUIPMENT

	June 30,	
	2014	2013
Equipment, at cost	$ 2,569,251	$ 6,752,838
Less Accumulated Depreciation	(2,348,055)	(2,856,799)
Equipment (Net of Accumulated Depreciation)	$ 221,196	$ 3,896,039

Depreciation expense for the fiscal years ended June 30, 2014 and 2013 amounted to $44,714 and $52,575, respectively. The decrease in equipment at cost is due to some assets being fully depreciated as of June 30, 2014, and removed from the fixed asset register, as well as several changes to the fixed asset policy regarding capitalization. The capitalization threshold was increased from $1,000 to $3,000. The fixed asset register was updated to remove those items that were classified as inventory, but were not classified as depreciable assets.

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2014
(CONTINUED)

NOTE K - INTANGIBLE ASSETS

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

Software consists of the following:

	June 30, 2014	June 30, 2013
Software, at cost	$ 16,254,290	$ 16,254,290
Less Accumulated Amortization	(5,935,919)	(4,059,389)
Intangible Assets (Net of Accumulated Amortization)	$ 10,318,371	$ 12,194,901

Amortization expense for the fiscal years ended June 30, 2014 and 2013 amounted to $1,876,530 and $1,166,377, respectively. The increase is due to the capitalization of all START expenses to date through June 30, 2014.

NOTE L - ACTUARIAL VALUATION

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

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

	2014	**2013**
Pension Funds:		
Kentucky Employees Retirement System (Non-Hazardous)	$ 9,126,153,508	$ 8,750,479,307
Kentucky Employees Retirement System (Hazardous)	288,952,802	278,323,786
County Employees Retirement System (Non-Hazardous)	3,655,388,924	3,741,781,631
County Employees Retirement System (Hazardous)	1,321,185,726	1,322,514,183
State Police Retirement System	438,376,667	409,780,326
Total Pension Funds	14,830,057,627	14,502,879,233
Insurance Fund:		
Kentucky Employees Retirement System (Non-Hazardous)	1,605,523,279	1,631,169,807
Kentucky Employees Retirement System (Hazardous)	(22,409,047)	14,743,272
County Employees Retirement System (Non-Hazardous)	785,715,135	815,649,903
County Employees Retirement System (Hazardous)	496,131,142	544,558,426
State Police Retirement System	78,676,367	86,005,683
Total Insurance Fund	2,943,636,876	3,092,127,091
Total Unfunded Actuarial Accrued Liability	**$ 17,773,694,503**	**$ 17,595,006,324**

KENTUCKY RETIREMENT SYSTEMS
NOTES TO COMBINING FINANCIAL STATEMENTS
June 30, 2014
(Continued)

NOTE L - ACTUARIAL VALUATION (CONTINUED)

The following is the Schedule of Funding Progress for the fiscal year ended June 30, 2014:

	Actuarial Value of Assets	Actuarial Accrued Liability (AAL) Entry Age Normal	Percent Funded	Covered Payroll	Unfunded AAL as a% of Covered Payroll
Pension Funds:					
KERS Non-Hazardous	$2,423,956,716	$ 11,550,110,224	21.0	$ 1,577,496,447	578.5
KERS Hazardous	527,897,261	816,850,063	64.6	129,076,038	223.9
CERS Non-Hazardous	6,117,133,692	9,772,522,616	62.6	2,272,270,287	160.9
CERS Hazardous	1,967,640,027	3,288,825,753	59.8	479,164,016	275.7
SPRS	242,741,735	681,118,402	35.6	44,615,885	982.6
Total Pension Funds	11,279,369,431	26,109,427,058	43.2	4,502,622,673	329.4
Insurance Fund:					
KERS Non-Hazardous	621,236,646	2,226,759,925	27.9	1,577,496,447	101.8
KERS Hazardous	419,395,867	396,986,820	105.6	129,076,038	(17.4)
CERS Non-Hazardous	1,831,199,465	2,616,914,600	70.0	2,272,270,287	34.6
CERS Hazardous	997,733,237	1,493,864,379	66.8	479,164,016	103.5
SPRS	155,594,760	234,271,127	66.4	44,615,885	176.3
Total Insurance Fund	4,025,159,975	6,968,796,851	57.7	4,502,622,673	65.4
Totals	$ 15,304,429,406	$ 33,081,223,909	46.3	$ 9,005,245,346	197.4

The Schedule of Net Pension Liability Pension Funds is on pages 75 through 77. The Schedule of Funding Progress for the Insurance Fund is on pages 72 through 74.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE L - ACTUARIAL VALUATION (CONTINUED)

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

KERS:

The Net Pension Liability is equal to the Total Pension Liability minus the Fiduciary Net Position. That result as of June 30, 2014, for the plan is presented in the table below ($ thousands):

	Non-Hazardous	Hazardous
Total Pension Liability	$ 11,550,110	$ 816,850
Fiduciary Net Position	2,578,290	561,485
Net Pension Liability	$ 8,971,820	$ 255,365
Ratio of Fiduciary Net Position to Total Pension Liability	22.32%	68.74%

The following presents the net pension liability of KERS, calculated using the discount rate of 7.75%, as well as what KERS' net position liability would be if it were calculated using a discount rate that is one percentage point lower (6.75%) or one percentage point higher (8.75%) than the current rate for non-hazardous and (6.75%) or one percentage point higher (8.75%) than the current rate for hazardous ($ thousands):

		Non-Hazardous	
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	$10,093,046	$8,971,820	$7,960,935

		Hazardous	
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	$342,685	$255,365	$180,571

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE L - ACTUARIAL VALUATION (CONTINUED)

CERS:

The Net Pension Liability is equal to the Total Pension Liability minus the Fiduciary Net Position. That result as of June 30, 2014, for the plan is presented in the table below ($ thousands):

	Non-Hazardous	Hazardous
Total Pension Liability	$ 9,772,523	$ 3,288,826
Fiduciary Net Position	6,528,147	2,087,002
Net Pension Liability	$ 3,244,376	$ 1,201,824
Ratio of Fiduciary Net Position to Total Pension Liability	66.80%	63.46%

The following presents the net pension liability of CERS, calculated using the discount rate of 7.75%, as well as what CERS' net position liability would be if it were calculated using a discount rate that is one percentage point lower (6.75%) or one percentage point higher (8.75%) than the current rate for non-hazardous and (6.75%) or one percentage point higher (8.75%) than the current rate for hazardous ($ thousands):

		Non-Hazardous	
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	$4,269,383	$3,244,376	$2,338,760

		Hazardous	
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	$1,572,178	$1,201,824	$887,365

SPRS:

The Net Pension Liability is equal to the Total Pension Liability minus the Fiduciary Net Position. That result as of June 30, 2014, for the plan is presented in the table below ($ thousands):

	Hazardous
Total Pension Liability	$ 681,119
Fiduciary Net Position	260,974
Net Pension Liability	$ 420,145
Ratio of Fiduciary Net Position to Total Pension Liability	38.32%

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE L - ACTUARIAL VALUATION (CONTINUED)

The following presents the net pension liability of SPRS, calculated using the discount rate of 7.75%, as well as what SPRS' net position liability would be if it were calculated using a discount rate that is one percentage point lower (6.75%) or one percentage point higher (8.75%) than the current rate for non-hazardous and (6.75%) or one percentage point higher (8.75%) than the current rate for hazardous ($ thousands):

		Hazardous	
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	$489,185	$420,145	$361,457

The actuarial valuation date upon which the total pension liability was based is June 30, 2014. No update procedures were used to determine the total pension liability. An expected total pension liability is determined as of July 1, 2013, using standard roll back techniques. The roll back calculation subtracts the annual normal cost (also called the service cost), adds the actual benefit payments and refunds for the plan year and then applies the expected investment rate of return for the year.

The Total Pension Liability was determined by an actuarial valuation as of June 30, 2014, using the following actuarial assumptions, applied to all periods included in the measurement:

	Non-Hazardous	Hazardous
Inflation	3.5%	3.5%
Salary Increases	4.5%, average, including inflation	4.5%, average, including inflation
Investment Rate of Return	7.75%, net of pension plan investment expense, including inflation	7.75%, net of pension plan investment expense, including inflation

The rates of mortality, for both non-hazardous and hazardous, for the period after service retirement are according to the 1983 Group Annuity Mortality Table for all retired members and beneficiaries as of June 30, 2006, and the 1994 Group Annuity Mortality Table for all other members. The Group Annuity Mortality Table set forward five years is used for the period after the disability retirement.

The actuarial assumptions used in the June 30, 2014 valuation were based on the results of an actuarial experience study for the period July 1, 2005 – June 30, 2008. The discount rate used to measure the total pension liability was 7.75%.

The projection of cash flows used to determine the discount rate assumed that local employers would contribute the actuarially determined contribution rate of project5ed compensation over the remaining 29 year amortization period of the unfunded actuarial accrued liability. The actuarial determined contribution rate is adjusted to reflect the phase in of anticipated gains on actuarial value of assets over the first four years of the projection period.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE L - ACTUARIAL VALUATION (CONTINUED)

The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for the Systems. The most recent analysis, peformed for the period covering fiscal years 2005 through 2008, is outlined in a report dated August 25, 2009. Several factors are considered in evaluating the long-term rate of return assumption including long-term historical data, estimates inherent in current market data, and a log – normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumpti0ns developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding pension plans which covers a longer timeframe. The assumption is intended to be a long-term assumption and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

The discount rate determination does not use a municipal bond rate. Projected future benefit payments for all current plan members were projected through 2116. The target asset allocation and best estimates of arithmetic nominal rates of return for each major asset class are summarized:

Asset Class	Target Allocation	Long Term Nominal Rate of Return
Domestic Equity	30%	8.45%
International Equity	22%	8.85%
Emerging Market Equity	5%	10.5%
Private Equity	7%	11.25%
Real Estate	5%	7%
Core US Fixed Income	10%	5.25%
High Yield US Fixed Income	5%	7.25%
Non US Fixed Income	5%	5.5%
Commodities	5%	7.75%
TIPS	5%	5%
Cash	1%	3.25%
Total	100%	

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE L - ACTUARIAL VALUATION (CONTINUED)

INSURANCE FUND***

	Non-Hazardous	Hazardous
Valuation Date	June 30, 2014	June 30, 2014
Actuarial Cost Method	Entry Age	Entry Age
Amortization Method	Level Percent Closed	Level Percent Closed
Remaining Amortization Period	29 Years	29 Years
Asset Valuation Method	Five-year smoothed Market	Five-year smoothed Market
Medical Trend Assumption (Pre-Medicare)	7.75%-5.0%	7.75%-5.0%
Medical Trend Assumption (Post-Medicare)	6.0%-5.0%	6.0%-5.0%
Year Ultimate Trend	2020	2020
Actuarial Assumptions:		
Investment Rate of Return*	7.75%	7.75%
*Includes Price Inflation at	3.50%	3.50%

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

NOTE M - HOUSE BILL 1 PENSION REFORM

House Bill 1 was signed by the Governor of the Commonwealth on June 27, 2008. It contained a number of changes that KRS implemented effective September 1, 2008. House Bill 1 also contained statutory changes to Kentucky Revised Statute 61.637, the law governing members who become reemployed following retirement.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE M - HOUSE BILL 1 PENSION REFORM (CONTINUED)

Employee contributions for non-hazardous employees who began participating with KRS on, or after, September 1, 2008, contributed a total of 6% of all their creditable compensation to KRS. Five percent of this contribution was deposited to the individual employee's account, while the other 1% was deposited to an account created under 26 USC Section 401(h) in the KRS Pension Fund (see Kentucky Administrative Regulation 105 KAR 1:420E) for the payment of health insurance benefits. Hazardous employees who began participating with KRS on, or after, September 1, 2008, contributed a total of 9% of all their creditable compensation, with 8% credited to the member's account, and 1% deposited to the KRS Pension Fund 401(h) account for the payment of health insurance benefits. Interest paid each June on these members' accounts is set at a rate of 2.5%. If a member terminates his/her employment and applies to take a refund, the member is entitled to a full refund of contributions and interest in his/her account; however, the 1% contributed to the 401(h) account in the KRS Pension Fund is non-refundable and is forfeited.

Employer contribution rates for KERS and SPRS for fiscal 2014 were established in the 2010-2012 Executive Branch Budget (House Bill 1) during the 2010 Extraordinary Session of the Kentucky General Assembly. Employer contribution rates for CERS for fiscal year 2014 were adopted by the Board of KRS based on the actuarially recommended rates. The Employer contribution rates were established as follows (effective July 1, 2013) for fiscal year 2014:

KERS-Non-Hazardous	26.79%
KERS-Hazardous	32.21%
CERS-Non-Hazardous	18.89%
CERS-Hazardous	35.70%
SPRS	71.15%

Although the majority of changes enacted in House Bill 1 only impacted new hires on, or after, September 1, 2008, there were some changes that affected all members and retirees of KRS:

Cost of Living Adjustment (COLA): Beginning July 1, 2009, COLA for retirees are set by statute at 1.5% each July 1. The Kentucky General Assembly may increase this percentage at any time, but only if appropriate funding is allocated. The General Assembly may also reduce or suspend the annual COLA.

Service Purchase Costs: The actuarial factors used to determine the cost to purchase a service must assume the earliest date a member can retire with an unreduced benefit, and must also assume a 1.5% COLA will be enacted. This change results in an increased service purchase cost for any purchase calculated on, or after, September 1, 2008. This change also affects the cost billed to employers for sick leave when an employee retires.

Payment Options: The Partial Lump Sum Payment Option was made available only to those employees who retired on, or before, January 1, 2009.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE M - HOUSE BILL 1 PENSION REFORM (CONTINUED)

Kentucky Revised Statute 61.637 was modified significantly by House Bill 1. A retired member who was reemployed on, or after, September 1, 2008, cannot accrue additional service credit in KRS, even if employed in a position that would otherwise be required to participate in KRS. However, if a retiree is reemployed in a regular full time position, his/her employer is required to pay contributions on all creditable compensation earned during the period of reemployment. These contributions are used to reduce the unfunded actuarial liability.

NOTE N - MEDICARE PRESCRIPTION DRUG PLAN

In fiscal year 2009, KRS submitted an application to the Centers for Medicare & Medicaid Services, of the Department of Health & Human Services, to enter into a contract to offer a Medicare Prescription Drug Plan (PDP), as described in the Medicare Prescription Drug Benefit Final Rule published in the Federal Register on January 28, 2005 (70 Fed. Reg. 4194). As part of the application process, KRS was required to establish a segregated Insolvency Account in the amount of $100,000; this account must retain a minimum balance of $100,000. The account consists of cash and/or cash equivalents and is invested on a daily basis. On February 19, 2009, KRS established the KRS Insurance Prescription Drug Fund. As of June 30, 2014 and 2013, the Insolvency Account amounted to $100,039 and $100,691, respectively.

NOTE O - HOUSE BILL 300 PENSION REFORM

House Bill 300 was signed by the Governor on April 11, 2012. The Bill makes changes/additions to information and definitions regarding placement agents, audits to be performed on KRS by the Kentucky Auditor of Public Accounts, terms of service of Trustees of the Board, terms of service of Board officers (Chair and Vice Chair), among other changes.

NOTE P - REIMBURSEMENT OF RETIRED – REEMPLOYED HEALTH INSURANCE

As a result of the passage of House Bill 1 on September 1, 2008, if a retiree is reemployed in a regular full time position and has chosen health insurance coverage through KRS, the employer is required to reimburse KRS for the health insurance premium paid on the retiree's behalf, not to exceed the cost of the single premium rate. As of June 30, 2014 and 2013, the reimbursement totaled $12,366,990 and $9,187,367, respectively.

NOTE Q - LOUISVILLE/JEFFERSON COUNTY METRO FIREFIGHTERS

Firefighter employees of Louisville/Jefferson County Metro Government were awarded a total of $28,440,159 for back-pay. Of that total, $28,425,232 was determined to be the amount of creditable compensation. The total contributions owed to KRS were calculated by applying the contribution rate in effect for each fiscal year awarded (fiscal year 1986 to fiscal year 2009) while considering the appropriate participation status, hazardous or non-hazardous, of each employee. These calculations established that the total employer contribution owed was $5,113,511, and the total employee contribution owed was $2,083,310, for a total of $7,196,821. These amounts were received on July 27, 2010.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE Q - LOUISVILLE/JEFFERSON COUNTY METRO FIREFIGHTERS (CONTINUED)

KRS also calculated the impact on final compensation caused by the retroactive benefits paid to those firefighters who have already retired. KRS was required to pay retroactive benefit payments totaling $6,221,219, reflecting additional benefits due to the increase in final compensation. The liability was paid on August 22, 2010, by issuance of benefit payments to the individual firefighter members.

Kentucky Revised Statute 61.675(3) (b) requires that KRS collect interest on unmade or delinquent contributions. The interest owed by the Louisville/Jefferson County Metro Government, as calculated by KRS' actuaries, amounted to $12,020,731. Therefore, the total amount due KRS was $19,217,552. As stated earlier, $7,196,821 was received on July 27, 2010.

In April 2012, KRS received $3,866,429 and in July 2012, KRS received an additional $7,000,000, for interest owed, which by settlement extinguished the liability to KRS.

NOTE R - RECIPROCITY AGREEMENT

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

NOTE S - CUSTODIAL BANK

As a result of a thorough Request for Proposal (RFP) process, and effective July 1, 2013, Bank of New York-Mellon became responsible for providing KRS all required global custodial services. Bank of New York-Mellon took these duties over from Northern Trust, the former custodial bank.

NOTE T - RELATED PARTY

Perimeter Park West, Inc. (PPW) is a legally separate, tax-exempt Kentucky corporation established in 1998 to own the land and buildings on which KRS is located. PPW leases the buildings to KRS (the lease is renewed periodically) and provides maintenance for the buildings and land. PPW is considered a related party to KRS and has its own separate financial audit. The following presents the amounts recorded between KRS and PPW for the fiscal year ended June 30, 2014:

Lease payments to PPW from KRS:	$ 674,320
Dividends to KRS from PPW:	$ 0

NOTE U – SENATE BILL 2 PENSION REFORM

Senate Bill 2 was signed by the Governor on April 4, 2013. It contained a number of changes to the pension system that KRS implemented, effective January 1, 2014. The Bill created the hybrid cash balance plan for members who began participation on, or after, January 1, 2014. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and a defined contribution plan.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE U – SENATE BILL 2 PENSION REFORM (CONTINUED)

The plan resembles a defined contribution plan because it determines the value of benefits for each participant based on individual accounts. However, the assets of the plan remain in a single investment pool like a traditional defined benefit plan. The plan is a defined benefit plan since it uses a specific formula to determine benefits.

All regular full time employees who began participation with KRS on, or after, January 1, 2014 contribute to the hybrid cash balance plan. Participation in the plan is mandatory unless the employee is employed in a non-participating position. Employment classifications that are non-participating include part-time, seasonal, temporary, probationary (CERS only), interim, emergency, and independent contractors.

Members and employers contribute a specified amount into the member's account. The account earns a guaranteed amount of interest at the end of each fiscal year. If the member has participated in the plan during the fiscal year, there may be an additional interest credit added to the member's account depending on KRS' investment returns. All interest is paid on the preceding year's balance.

When a member is eligible to retire, the benefit is calculated based on the member's accumulated account balance. A member earns service credit for each month he contributes to the plan. Once a member obtains 60 months of service credit, he is considered vested. Vesting may change the level of benefits to which the member is entitled.

Members in the hybrid cash balance plan contribute a set percentage of their salary each month to their own account as required by Kentucky law:

- non-hazardous members – 5% of creditable compensation
- hazardous members – 8% of creditable compensation
- all members – 1% to the health insurance fund which is not credited to the member's account and is not refundable

The employer contribution rate is based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. If the member is non-hazardous, his account is credited with a 4% employer pay credit. If the member is hazardous, his account is credited with a 7.5% employer pay credit. The employer pay credit represents a portion of the employer contribution.

In addition, Senate Bill 2 implemented provisions requiring employers to pay the actuarial cost of increases in an employee's salary in the last five years prior to retirement, which result in increases to the employee's pension, commonly known as pension spiking. All salary increases greater than 10% from one fiscal year to the next are presumed pension spikes. The law specifically excludes three situations from being considered toward pension spiking: 1. bona fide promotions; 2. career advancements; and 3. lump sum compensatory time paid at termination. For all members who retire on, or after, January 1, 2014, KRS will analyze the last five years of wages used in the retirement calculation to determine if a pension spike has occurred. If a pension spike has occurred, KRS will notify the last employer. Regardless of when the pension spike occurred, the last participating employer shall be required to pay for any additional actuarial costs resulting from annual increases in employee salary greater than ten percent (10%), which do qualify under one of the three exceptions.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE U – SENATE BILL 2 PENSION REFORM (CONTINUED)

If there were multiple last employers, the cost is divided equally amongst them. The employer is permitted a 12 month period to remit the amount due.

NOTE V – CITY OF FORT WRIGHT

In June 2014, the City of Fort Wright (the City), a participating employer in CERS, filed a lawsuit against KRS alleging that the Board invested CERS funds in investments that were prohibited by both statutory and common law. In addition, the City alleged that the Board paid substantial asset management fees, which the suit alleges were improper. Although the exact nature and source of the relief sought is unclear, it appears that the City is seeking a declaration of rights, an injunction barring the placement of CERS assets in certain types of investments, an accounting of CERS assets, restitution of management fees to CERS, and attorney fees. As noted above, the exact nature and scope of the relief sought in this suit is unclear; therefore, no provision has been made in the combining financial statements.

NOTE W – SEVEN COUNTIES SERVICES, INC.

Seven Counties Services, Inc., a formally participating employer in KERS, filed for Chapter 11 bankruptcy protection on April 4, 2013, in part to terminate its employees' continued participation in KERS and its obligation to remit monthly contributions to KRS. Following the filing of the bankruptcy petition, Seven Counties Services ceased making retirement contributions on approximately 900 of its approximately 1,200 employees. On May 30, 2014, the United States Bankruptcy Court for the Western District of Kentucky issued a Memorandum Opinion that held that Seven Counties Services was entitled to seek Chapter 11 relief and reject what the Court considered to be an executory contract with KERS. Following the May 30, 2014 Opinion, Seven Counties Services ceased making contributions on behalf of all its employees.

NOTE X – WRITE OFF OF RECEIVABLE

With the implementation of START, employers reported June wages earned in the following month of July (next fiscal year) and the new Annual Required Contribution (ARC) rate was applied. The Commonwealth approved budget guidelines that paid contributions at the fiscal year ARC rate in effect when wages were earned. It is unlikely that KRS will receive payments at the new ARC rate for that period; therefore, contribution receivables have been reduced as follows as of June 30, 2014:

KERS Hazardous	$ 5,216,615
CERS Non-Hazardous	102,823
CERS Hazardous	91,305
SPRS	571,336
TOTAL	$ 5,982,080

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

NOTE Y – BANK OF AMERICA SETTLEMENT

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

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

NOTE Z – SUBSEQUENT EVENTS

Management has evaluated the period June 30, 2014, to December 4, 2014, (the date the combining financial statements were available to be issued) for items requiring recognition or disclosure in the combining financial statements.

REQUIRED SUPPLEMENTARY INFORMATION

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014

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

KENTUCKY EMPLOYEES RETIREMENT SYSTEM (KERS) - PENSION FUNDS

Non Hazardous	2014
Total Pension Liability (TPL)	
Service Cost	$ 133,361
Interest	853,652
Benefit Changes	0
Difference between Expected and Actual Experience	0
Changes of Assumptions	0
Benefit Payments	(889,936)
Refunds of Contributions	(13,627)
Net Change in TPL	83,450
TPL - Beginning	11,466,660
TPL – Ending (a)	**$11,550,110**
Plan Net Position	
Contributions - Employer	$ 296,836
Contributions - Member	97,487
Net Investment Income	337,922
Benefit Payments	(889,936)
Administrative Expense	(11,145)
Refunds of Contributions	(13,627)
Other	0
Net Change in Plan Net Position	(182,463)
Plan Net Position - Beginning	2,760,753
Plan Net Position – Ending (b)	**$ 2,578,290**
Net Pension Liability – Ending (a) – (b)	**$ 8,971,820**

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

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

KENTUCKY EMPLOYEES RETIREMENT SYSTEM (KERS) - PENSION FUNDS

Hazardous	2014
Total Pension Liability (TPL)	
Service Cost	$ 16,880
Interest	59,594
Benefit Changes	0
Difference between Expected and Actual Experience	0
Changes of Assumptions	0
Benefit Payments	(54,321)
Refunds of Contributions	(2,830)
Net Change in TPL	19,323
TPL - Beginning	797,527
TPL – Ending (a)	**$ 816,850**
Plan Net Position	
Contributions - Employer	$ 11,671
Contributions - Member	12,546
Net Investment Income	80,724
Benefit Payments	(54,321)
Administrative Expense	(898)
Refunds of Contributions	(2,830)
Other	0
Net Change in Plan Net Position	46,892
Plan Net Position - Beginning	514,592
Plan Net Position – Ending (b)	**$ 561,484**
Net Pension Liability – Ending (a) – (b)	**$ 255,366**

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

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

COUNTY EMPLOYEES RETIREMENT SYSTEM (CERS) - PENSION FUNDS

Non Hazardous	2014
Total Pension Liability (TPL)	
Service Cost	$ 192,482
Interest	710,527
Benefit Changes	0
Difference between Expected and Actual Experience	0
Changes of Assumptions	0
Benefit Payments	(582,850)
Refunds of Contributions	(14,286)
Net Change in TPL	305,873
TPL - Beginning	9,466,650
TPL – Ending (a)	**$ 9,772,523**
Plan Net Position	
Contributions - Employer	$ 324,231
Contributions - Member	128,568
Net Investment Income	895,531
Benefit Payments	(582,850)
Administrative Expense	(18,615)
Refunds of Contributions	(14,286)
Other	0
Net Change in Plan Net Position	732,579
Plan Net Position - Beginning	5,795,568
Plan Net Position – Ending (b)	**$ 6,528,147**
Net Pension Liability – Ending (a) – (b)	**$ 3,244,376**

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

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

COUNTY EMPLOYEES RETIREMENT SYSTEM (CERS) - PENSION FUNDS

Hazardous	2014
Total Pension Liability (TPL)	
Service Cost	$ 66,761
Interest	238,665
Benefit Changes	0
Difference between Expected and Actual Experience	0
Changes of Assumptions	0
Benefit Payments	(189,635)
Refunds of Contributions	(2,665)
Net Change in TPL	113,127
TPL – Beginning	3,175,699
TPL – Ending (a)	**$ 3,288,826**
Plan Net Position	
Contributions – Employer	$ 115,240
Contributions – Member	43,722
Net Investment Income	288,490
Benefit Payments	(189,635)
Administrative Expense	(1,721)
Refunds of Contributions	(2,665)
Other	0
Net Change in Plan Net Position	253,431
Plan Net Position – Beginning	1,833,571
Plan Net Position – Ending (b)	**$ 2,087,002**
Net Pension Liability – Ending (a) – (b)	**$ 1,201,825**

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

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

STATE POLICE RETIREMENT SYSTEM (SPRS) - PENSION FUNDS

Hazardous	2014
Total Pension Liability (TPL)	
Service Cost	$ 7,142
Interest	50,391
Benefit Changes	0
Difference between Expected and Actual Experience	0
Changes of Assumptions	0
Benefit Payments	(53,026)
Refunds of Contributions	(213)
Net Change in TPL	4,294
TPL - Beginning	676,825
TPL – Ending (a)	**$ 681,119**
Plan Net Position	
Contributions - Employer	$ 20,279
Contributions - Member	5,076
Net Investment Income	40,374
Benefit Payments	(53,026)
Administrative Expense	(214)
Refunds of Contributions	(213)
Other	0
Net Change in Plan Net Position	12,276
Plan Net Position - Beginning	248,698
Plan Net Position – Ending (b)	**$ 260,974**
Net Pension Liability – Ending (a) – (b)	**$ 420,145**

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedule of the Net Pension Liability
($ in Thousands)

KENTUCKY EMPLOYEES RETIREMENT SYSTEM (KERS) - PENSION FUNDS

Non Hazardous	2014
Total Pension Liability (TPL)	$ 11,550,110
Plan Net Position	2,578,290
Net Pension Liability	**$ 8,971,820**
Ratio of Plan Net Position to TPL	22.32%
Covered Employee Payroll	$ 1,577,496
Net Pension Liability as a Percentage of Covered Employee Payroll	568.74%

Hazardous	2014
Total Pension Liability (TPL)	$ 816,850
Plan Net Position	561,484
Net Pension Liability	**$ 255,366**
Ratio of Plan Net Position to TPL	68.74%
Covered Employee Payroll	$ 129,076
Net Pension Liability as a Percentage of Covered Employee Payroll	197.84%

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedule of the Net Pension Liability
($ in Thousands)

COUNTY EMPLOYEES RETIREMENT SYSTEM (CERS) - PENSION FUNDS

Non-Hazardous	2014
Total Pension Liability (TPL)	$ 9,772,523
Plan Net Position	6,528,147
Net Pension Liability	**$ 3,244,376**
Ratio of Plan Net Position to TPL	66.80%
Covered Employee Payroll	$ 2,272,270
Net Pension Liability as a Percentage of Covered Employee Payroll	142.78%

Hazardous	2014
Total Pension Liability (TPL)	$ 3,288,826
Plan Net Position	2,087,002
Net Pension Liability	**$ 1,201,825**
Ratio of Plan Net Position to TPL	63.46%
Covered Employee Payroll	$ 479,164
Net Pension Liability as a Percentage of Covered Employee Payroll	250.82%

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedule of the Net Pension Liability
($ in Thousands)

STATE POLICE RETIREMENT SYSTEM (SPRS) - PENSION FUNDS

Hazardous	2014
Total Pension Liability (TPL)	$ 681,119
Plan Net Position	260,974
Net Pension Liability	**$ 420,145**
Ratio of Plan Net Position to TPL	38.32%
Covered Employee Payroll	$ 44,616
Net Pension Liability as a Percentage of Covered Employee Payroll	941.69%

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedule of Employer Contributions
($ in Thousands)

KENTUCKY EMPLOYEES RETIREMENT SYSTEM (KERS) - PENSION FUNDS

Non-Hazardous	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially Determined Employer Contribution	$ 520,765	$ 485,396	$ 441,094	$ 381,915	$ 348,495	$ 294,495	$ 264,743	$ 176,774	$ 129,126	$ 85,799
Actual Employer Contributions	286,836	280,874	214,786	193,754	144,051	112,383	104,655	88,249	60,681	50,333
Annual Contribution Deficiency (Excess)	$ 223,929	$ 204,522	$ 226,308	$ 188,161	$ 204,444	$ 182,112	$ 160,088	$ 88,525	$ 68,445	$ 35,466
Covered Employee Payroll	$1,577,496	$ 1,644,409	$ 1,644,897	$ 1,773,633	$ 1,815,146	$1,754,413	$ 1,837,873	$ 1,780,223	$ 1,702,231	$1,655,907
Actual Contributions as a Percentage of Covered-Employee Payroll	18.82%	17.08%	13.06%	11.19%	7.94%	6.41%	5.69%	4.96%	3.56%	3.04%

Hazardous	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially Determined Employer Contribution	$ 13,570	$ 21,502	$ 20,265	$ 20,605	$ 17,815	$ 15,708	$ 14,147	$ 12,220	$ 10,787	$ 9,450
Actual Employer Contributions	11,670	27,334	20,809	19,141	17,658	15,843	15,257	13,237	10,803	9,759
Annual Contribution Deficiency (Excess)	$ 1,900	$ (5,832)	$ (544)	$ 1,465	$ 157	$ (135)	$ (1,110)	$ (1,018)	$ (16)	$ (309)
Covered Employee Payroll	$ 129,076	$ 132,015	$ 131,977	$ 133,054	$ 143,558	$ 146,044	$ 148,710	$ 144,838	$ 138,747	$ 131,687
Actual Contributions as a Percentage of Covered-Employee Payroll	9.04%	20.7%	15.77%	14.39%	12.3%	10.85%	10.26%	9.14%	7.79%	7.41%

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedule of Employer Contributions
($ in Thousands)

COUNTY EMPLOYEES RETIREMENT SYSTEM (CERS) - PENSION FUNDS

Non-Hazardous	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially Determined Employer Contribution	$ 324,231	$ 294,914	$ 261,764	$ 218,985	$ 186,724	$ 161,097	$ 138,311	$ 112,508	$ 83,124	$ 53,118
Actual Employer Contributions	324,231	294,914	275,736	248,519	207,076	179,285	150,925	124,261	90,834	54,617
Annual Contribution Deficiency (Excess)	$ 0	$ 0	$ (13,972)	$ (29,534)	$ (20,351)	$ (18,187)	$ (12,614)	$ (11,753)	$ (7,710)	$ (1,499)
Covered Employee Payroll	$ 2,272,270	$ 2,236,277	$ 2,236,546	$ 2,276,596	$ 2,236,855	$ 2,183,612	$ 2,166,613	$ 2,076,848	$ 1,982,437	$ 1,885,275
Actual Contributions as a Percentage of Covered-Employee Payroll	14.27%	13.19%	12.33%	10.92%	9.26%	8.21%	6.97%	5.98%	4.58%	2.9%

Hazardous	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially Determined Employer Contribution	$ 115,240	$ 120,140	$ 83,589	$ 78,796	$ 76,391	$ 69,056	$ 64,082	$ 53,890	$ 44,059	$ 39,438
Actual Employer Contributions	115,240	120,140	89,329	85,078	82,887	78,152	72,155	61,553	49,976	39,948
Annual Contribution Deficiency (Excess)	$ 0	$ 0	$ (5,740)	$ (6,283)	$ (6,496)	$ (9,095)	$ (8,073)	$ (7,663)	$ (5,917)	$ (510)
Covered Employee Payroll	$ 479,164	$ 461,673	$ 464,229	$ 466,964	$ 466,549	$ 469,315	$ 474,241	$ 458,999	$ 426,928	$ 411,122
Actual Contributions as a Percentage of Covered-Employee Payroll	24.05%	26.02%	19.24%	18.22%	17.77%	16.65%	15.21%	13.41%	11.71%	9.72%

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedule of Employer Contributions
($ in Thousands)

STATE POLICE RETIREMENT SYSTEM (SPRS) - PENSION FUNDS

Hazardous	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially Determined Employer Contribution	$ 25,808	$ 23,117	$ 20,498	$ 18,463	$ 18,765	$ 15,952	$ 13,823	$ 9,024	$ 6,353	$ `3,731
Actual Employer Contributions	20,279	18,501	15,362	12,657	9,489	8,186	7,443	6,142	4,244	2,851
Annual Contribution Deficiency (Excess)	$ 5,529	$ 4,616	$ 5,136	$ 5,806	$ 9,276	$ 7,766	$ 6,380	$ 2,881	$ 2,108	$ 879
Covered Employee Payroll	$ 44,616	$ 45,256	$ 48,373	$ 48,693	$ 51,507	$ 51,660	$ 53,269	$ 49,248	$ 47,744	$ 43,720
Actual Contributions as a Percentage of Covered-Employee Payroll	45.45%	40.88%	31.76%	25.99%	18.42%	15.85%	13.97%	12.47%	8.89%	6.52%

The actuarially determined contribution rates are determined on an annual basis beginning with the fiscal years ended 2014, determined as of July 1, 2013. The amortization period of the unfunded liability has been reset as of July 1, 2013 to a closed 30 year period. The following actuarial methods and assumptions were used to determine contribution rates reported for all Systems:

Actuarial Cost Method	Entry Age
Amortization Method	Level of Percentage of Payroll, closed
Remaining Amortization Period	29 years
Asset Valuation Method	5 year Smoothed Market
Inflation	3.5%
Salary Increase	4.5%, average, including Inflation
Investment Rate of Return	7.75%, Net of Pension Plan Investment Expense, including Inflation

There were no changes of benefit terms or assumptions.

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedules of Funding Progress

KENTUCKY EMPLOYEES RETIREMENT SYSTEM (KERS) - INSURANCE FUND

Non-Hazardous	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age Normal (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Covered Payroll (c) **	UAAL as a % of Covered Payroll [(b-a)/c)]
June 30, 2005	$ 607,068,351	$ 2,680,559,188	$ 2,073,490,837	22.7	$ 1,655,907,288	125.2
June 30, 2006	611,350,765	7,815,480,774	7,204,130,009	7.8	1,702,230,777	423.2
June 30, 2007	621,171,658	5,201,355,055	4,580,183,397	11.9	1,780,223,493	257.3
June 30, 2008	603,197,761	5,431,499,285	4,828,301,524	11.1	1,837,873,488	262.7
June 30, 2009	534,172,580	4,507,325,571	3,973,152,991	11.9	1,754,412,912	226.5
June 30, 2010	471,341,628	4,466,136,041	3,994,794,413	10.6	1,815,146,388	220.1
June 30, 2011	451,620,442	4,280,089,633	3,828,469,191	10.6	1,731,632,748	221.1
June 30, 2012	446,080,511	3,125,330,157	2,679,249,646	14.3	1,644,896,681	162.9
June 30, 2013	497,584,327	2,128,754,134	1,631,169,807	23.4	1,644,408,698	99.2
June 30, 2014	621,236,646	2,226,759,925	1,605,523,279	27.9	1,577,496,447	101.8
Hazardous						
June 30, 2005	187,947,644	386,844,695	198,897,051	48.6	131,687,088	151.0
June 30, 2006	212,833,318	621,237,856	408,404,538	34.3	138,747,320	294.4
June 30, 2007	251,536,756	504,842,981	253,306,225	49.8	144,838,020	174.9
June 30, 2008	288,161,759	541,657,214	253,495,455	53.2	148,710,060	170.5
June 30, 2009	301,634,592	491,132,170	189,497,578	61.4	146,043,576	129.8
June 30, 2010	314,427,296	493,297,529	178,870,233	63.7	143,557,944	124.6
June 30, 2011	329,961,615	507,058,767	177,097,152	65.1	133,053,792	133.1
June 30, 2012	345,573,948	384,592,406	39,018,458	89.9	131,976,754	29.6
June 30, 2013	370,774,403	385,517,675	14,743,272	96.2	132,015,368	11.2
June 30, 2014	419,395,867	396,986,820	(22,409,047)	105.6	129,076,038	(17.4)
Total						
June 30, 2005	795,015,995	3,067,403,883	2,272,387,888	25.9	1,787,594,376	127.1
June 30, 2006	824,184,083	8,436,718,630	7,612,534,547	9.8	1,840,978,097	413.5
June 30, 2007	872,708,414	5,706,198,036	4,833,489,622	15.3	1,925,061,513	251.1
June 30, 2008	891,359,520	5,973,156,499	5,081,796,979	14.9	1,986,583,548	255.8
June 30, 2009	835,807,172	4,998,457,741	4,162,650,569	16.7	1,900,456,488	219.0
June 30, 2010	785,768,924	4,959,433,570	4,173,664,646	15.8	1,958,704,332	213.1
June 30, 2011	781,582,057	4,787,148,400	4,005,566,343	16.3	1,864,686,540	214.8
June 30, 2012	791,654,459	3,509,922,563	2,718,268,104	22.6	1,776,873,435	153.0
June 30, 2013	868,358,730	2,514,271,809	1,645,913,079	34.5	1,776,424,066	92.7
June 30, 2014	1,040,632,513	2,623,746,745	1,583,114,232	39.7	1,706,572,485	92.8

**Actuarially Computed

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedules of Funding Progress

COUNTY EMPLOYEES RETIREMENT SYSTEM (CERS) - INSURANCE FUND

Non-Hazardous	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age Normal (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Covered Payroll (c) **	UAAL as a % of Covered Payroll [(b-a)/c)]
June 30, 2005	$ 663,941,949	$ 2,788,754,654	$ 2,124,812,705	23.8	$ 1,885,275,000	112.7
June 30, 2006	777,726,590	4,607,223,639	3,829,497,049	16.9	1,982,437,473	112.7
June 30, 2007	960,285,900	3,333,966,070	2,373,680,170	28.8	2,076,848,328	114.3
June 30, 2008	1,168,883,170	3,583,193,466	2,414,310,296	32.6	2,166,612,648	111.4
June 30, 2009	1,216,631,769	3,070,386,018	1,853,754,249	39.6	2,183,611,848	84.9
June 30, 2010	1,293,038,593	3,158,340,174	1,865,301,581	40.9	2,236,855,380	83.4
June 30, 2011	1,433,450,793	3,073,973,205	1,640,522,412	40.9	2,276,595,948	72.1
June 30, 2012	1,512,853,851	2,370,771,288	857,917,437	63.8	2,236,546,345	38.4
June 30, 2013	1,628,244,197	2,443,894,100	815,649,903	66.6	2,236,546,345	36.5
June 30, 2014	1,831,199,465	2,616,914,600	785,715,135	70.0	2,272,270,287	34.6
Hazardous						
June 30, 2005	359,180,461	1,283,299,092	924,118,631	28.0	411,121,728	224.8
June 30, 2006	422,785,042	1,928,481,371	1,505,696,329	21.9	426,927,550	352.7
June 30, 2007	512,926,549	1,646,460,011	1,133,533,462	31.2	458,998,956	247.0
June 30, 2008	613,526,319	1,769,782,957	1,156,256,638	34.7	474,241,332	243.8
June 30, 2009	651,130,782	1,593,548,263	942,417,481	40.9	469,315,464	200.8
June 30, 2010	692,769,770	1,674,703,216	981,933,446	41.4	466,548,660	210.5
June 30, 2011	770,790,274	1,647,702,755	876,912,481	46.8	466,963,860	187.8
June 30, 2012	829,040,842	1,364,843,057	535,802,215	60.7	464,228,923	115.4
June 30, 2013	892,774,391	1,437,332,817	544,558,426	62.1	461,672,567	118.0
June 30, 2014	997,733,237	1,493,864,379	496,131,142	66.8	479,164,016	103.5
Total						
June 30, 2005	1,023,122,410	4,072,053,746	3,048,931,336	25.1	2,296,396,728	132.8
June 30, 2006	1,200,511,632	6,535,705,010	5,335,193,378	18.4	2,409,365,023	221.4
June 30, 2007	1,473,212,449	4,980,426,081	3,507,213,632	29.6	2,535,847,284	138.3
June 30, 2008	1,782,409,489	5,352,976,423	3,570,566,934	33.3	2,640,853,980	135.2
June 30, 2009	1,867,762,551	4,663,934,281	2,796,171,730	40.0	2,652,927,312	105.4
June 30, 2010	1,985,808,363	4,833,043,390	2,847,235,027	41.1	2,703,404,040	105.3
June 30, 2011	2,204,241,067	4,721,675,960	2,517,434,893	46.7	2,743,559,808	91.8
June 30, 2012	2,341,894,693	3,735,614,345	1,393,719,652	62.7	2,700,775,268	51.6
June 30, 2013	2,521,018,588	3,881,226,917	1,360,208,329	65.0	2,697,950,056	50.4
June 30, 2014	2,828,932,702	4,110,778,979	1,281,846,277	68.8	2,751,434,303	46.6

**Actuarially Computed

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedules of Funding Progress

STATE POLICE RETIREMENT SYSTEM (SPRS) - INSURANCE FUND

Year Ended	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age Normal (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Covered Payroll (c) **	UAAL as a % of Covered Payroll [(b-a)/c)]
June 30, 2005	$ 100,207,082	$ 234,159,510	$ 133,952,428	42.8	$ 43,720,092	306.4
June 30, 2006	105,580,269	582,580,867	477,000,598	18.1	47,743,865	999.1
June 30, 2007	115,215,912	432,763,229	317,547,317	26.6	49,247,580	644.8
June 30, 2008	123,961,197	445,107,468	321,146,271	27.8	53,269,080	602.9
June 30, 2009	123,526,647	364,031,141	240,504,494	33.9	51,660,396	465.5
June 30, 2010	121,175,083	434,960,495	313,785,412	27.9	51,506,712	609.2
June 30, 2011	123,687,289	438,427,763	314,740,474	28.2	48,692,616	646.4
June 30, 2012	124,372,072	333,903,782	209,531,710	37.2	48,372,506	433.2
June 30, 2013	136,321,060	222,326,743	86,005,683	61.3	45,256,202	190.0
June 30, 2014	155,594,760	234,271,127	78,676,367	66.4	44,615,885	176.3

**Actuarially Computed

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedules of Contributions From Employers and Other Contributing Entities

KENTUCKY EMPLOYEES RETIREMENT SYSTEM (KERS) – INSURANCE FUND

Non-Hazardous

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 86,974,271	$ 49,909,228	$	57.4
June 30, 2006	202,498,302	47,634,639		23.5
June 30, 2007	219,768,964	64,014,332	10,744,049	34.0
June 30, 2008	558,745,820	56,744,942	6,633,538	11.3
June 30, 2009	362,707,378	74,542,932	8,167,982	22.8
June 30, 2010	376,556,187	93,976,917	8,550,914	27.2
June 30, 2011	294,897,813	129,335,552		43.9
June 30, 2012	297,904,224	156,057,216		52.4
June 30, 2013	286,143,134	165,330,557		57.8
June 30, 2014	208,880,813	166,609,592		79.8

Hazardous

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 15,892,977	$ 15,395,977	$	96.9
June 30, 2006	28,517,563	17,011,745		59.7
June 30, 2007	31,304,778	19,534,819	104,669	62.7
June 30, 2008	51,214,929	21,997,341	73,891	43.1
June 30, 2009	34,670,467	20,807,204	186,081	60.6
June 30, 2010	35,045,278	21,921,535	319,059	63.5
June 30, 2011	29,585,257	19,952,580		67.4
June 30, 2012	28,326,206	24,538,087		86.6
June 30, 2013	26,252,911	25,682,403		97.8
June 30, 2014	15,627,018	23,873,967		152.8

Total

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 102,867,248	$ 65,305,205	$	63.5
June 30, 2006	231,015,865	64,646,384		28.0
June 30, 2007	251,073,742	83,549,151	10,848,718	37.6
June 30, 2008	609,960,749	78,742,283	6,707,429	14.0
June 30, 2009	397,377,845	95,350,136	8,354,063	26.1
June 30, 2010	411,601,465	115,898,452	8,869,973	30.3
June 30, 2011	324,483,070	149,288,132		46.0
June 30, 2012	297,904,224	156,057,216		52.4
June 30, 2013	312,396,045	191,012,960		61.1
June 30, 2014	224,507,831	190,483,559		84.8

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedules of Contributions From Employers and Other Contributing Entities

COUNTY EMPLOYEES RETIREMENT SYSTEM (CERS) – INSURANCE FUND

Non-Hazardous

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 106,612,633	$ 106,638,253	$	100.0
June 30, 2006	272,942,757	128,867,817		47.2
June 30, 2007	285,600,490	147,608,801	9,623,431	55.1
June 30, 2008	406,541,729	196,110,111	6,003,181	49.7
June 30, 2009	264,733,532	123,852,611	7,623,628	49.6
June 30, 2010	266,331,326	166,607,097	9,156,991	66.0
June 30, 2011	213,429,424	186,885,576		87.6
June 30, 2012	214,421,008	171,924,836		80.2
June 30, 2013	195,560,870	159,992,643		81.8
June 30, 2014	130,651,800	123,278,028		94.4

Hazardous

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 54,094,495	$ 54,106,577	$	100.0
June 30, 2006	98,297,535	64,853,778		66.0
June 30, 2007	115,938,899	70,072,785	656,523	61.0
June 30, 2008	168,723,639	90,113,200	419,774	53.7
June 30, 2009	126,757,348	70,785,241	627,938	56.3
June 30, 2010	129,227,449	83,042,875	1,493,440	65.4
June 30, 2011	109,226,667	98,592,286		90.3
June 30, 2012	110,762,577	92,563,664		83.6
June 30, 2013	102,010,672	85,319,393		83.6
June 30, 2014	74,360,438	74,791,619		100.6

Total

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 160,707,128	$ 160,744,830	$	100.0
June 30, 2006	371,240,292	193,721,595		52.2
June 30, 2007	401,539,389	217,681,586	10,279,954	56.8
June 30, 2008	575,265,368	286,223,311	6,422,955	50.9
June 30, 2009	391,490,880	194,637,852	8,251,566	51.8
June 30, 2010	395,558,775	249,649,972	10,650,431	65.8
June 30, 2011	322,656,091	285,477,862		88.5
June 30, 2012	325,183,585	264,488,500		81.3
June 30, 2013	297,571,542	245,312,036		82.4
June 30, 2014	205,012,238	198,069,647		96.6

KENTUCKY RETIREMENT SYSTEMS
REQUIRED SUPPLEMENTARY INFORMATION
June 30, 2014
(Continued)

Schedules of Contributions From Employers and Other Contributing Entities

STATE POLICE RETIREMENT SYSTEM (SPRS) – INSURANCE FUND

Year Ended	Annual Required Contributions	Actual Contributions	Retiree Drug Subsidy Contributions	Percentage Contributed
June 30, 2005	$ 8,608,536	$ 6,631,031	$	77.0
June 30, 2006	12,554,648	6,880,517		54.8
June 30, 2007	15,233,320	6,488,600	361,942	45.0
June 30, 2008	43,469,735	7,329,229	183,564	17.3
June 30, 2009	29,324,666	7,413,552	229,240	26.1
June 30, 2010	30,302,151	8,369,428	273,684	28.5
June 30, 2011	25,772,574	11,050,964		42.9
June 30, 2012	28,246,786	11,960,468		42.3
June 30, 2013	27,234,229	16,828,681		61.8
June 30, 2014	20,879,022	14,493,242		69.4

ADDITIONAL SUPPORTING SCHEDULES

KENTUCKY RETIREMENT SYSTEMS
ADDITIONAL SUPPORTING SCHEDULES

Schedule of Administrative Expenses
For the Fiscal Years Ended June 30,
(Dollars in Thousands)

	2014	2013
	(Dollars in thousands)	
Personnel		
Salaries and Per Diem	$ 13,869	$ 14,987
Fringe Benefits	6,899	6,349
Tuition Assistance	33	26
Total Personnel	20,801	21,362
Contractual		
Actuarial Services	521	401
Audit Services	76	169
Healthcare	257	135
Human Resources	0	54
Legal Counsel	1,787	746
Medical Review Services	258	381
Miscellaneous	312	194
Total Contractual	3,211	2,080
Communication		
Printing	359	272
Telephone	123	154
Postage	545	507
Travel	159	101
Total Communication	1,186	1,034
Internal Audit		
Travel/Conferences	4	3
Dues/Subscriptions	1	1
Total Internal Audit	5	4
Investments (Pension Fund)		
Travel/Conferences	61	60
Dues/Subscriptions	34	41
Computer	169	180
Contractual	1,490	1,513
Miscellaneous	7	9
Legal	449	126
Total Investments	2,210	1,929

KENTUCKY RETIREMENT SYSTEMS
ADDITIONAL SUPPORTING SCHEDULES
June 30, 2014
(Continued)

Schedule of Administrative Expenses
For the Fiscal Years Ended June 30,
(Dollars in Thousands)
(Continued)

	2014	2013
	(Dollars in thousands)	
Rentals		
Office Space	706	1,165
Equipment	84	54
Total Rentals	790	1,219
Miscellaneous		
Utilities	225	209
Software	2,268	1,168
Supplies	122	153
Insurance	67	67
Dues & Subscriptions	47	
Maintenance	6	15
Other	21	0
Total Miscellaneous	2,756	1,612
Depreciation/Amortization	1,634	1,219
Total Pension Fund Administrative Expense	32,593	30,581
Healthcare Fees	1,614	9,758
Total Insurance Fund Administrative Expense	1,614	9,758
Total Administrative Expenses	$ 34,207	$ 40,339

KENTUCKY RETIREMENT SYSTEMS
ADDITIONAL SUPPORTING SCHEDULES
June 30, 2014
(Continued)

Schedule of Direct Investment Expenses
For the Fiscal Years Ended June 30
(Dollars in Thousands)

	2014	2013
PENSION FUNDS	(Dollars in thousands)	
Security Lending Fees		
Broker (Income) Rebates	$ (433)	$ (224)
Lending Agent Fees	675	865
Total Security Lending	242	641
Contractual Services		
Investment Management	42,867	41,128
Security Custody/Investment Consultant	2,763	1,513
Investment Related Travel	54	52
Software	169	180
Dues & Subscriptions	34	41
Conferences	7	8
Miscellaneous	7	9
Legal Counsel	449	126
Total Contractual Services	46,350	43,057
INSURANCE FUND		
Security Lending Fees		
Broker (Income) Rebates	(112)	15
Lending Agent Fees	222	282
Total Security Lending	110	297
Contractual Services		
Investment Management	14,896	9,599
Security Custody/Investment Consultant	765	
Total Contractual Services	15,661	9,599
Total Investment Expenses	$ 62,363	$ 51,664

KENTUCKY RETIREMENT SYSTEMS
ADDITIONAL SUPPORTING SCHEDULES
June 30, 2014
(Continued)

Schedule of Professional Consultant Fees
For the Fiscal Years Ended June 30
(Dollars in Thousands)

	2014	2013
	(Dollars in thousands)	
Actuarial Services	$ 521	$ 401
Medical Review Services	258	381
Audit Services	76	169
Legal Counsel	1,787	746
Healthcare	257	135
Human Resources		54
Miscellaneous	312	194
Total	$ 3,211	$ 2,080

REPORT OF INDEPENDENT AUDITORS ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit Of Financial Statements Performed In Accordance With *Government Auditing Standards*

Board of Trustees
Kentucky Retirement Systems
Frankfort, Kentucky

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the combining financial statements of the Kentucky Retirement Systems (KRS) as of and for the fiscal year ended June 30, 2014, and the related notes to the combining financial statements, which collectively comprise KRS' basic combining financial statements, and have issued our report thereon dated December 4, 2014.

Internal Control Over Financial Reporting

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

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

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Trustees
Kentucky Retirement Systems
Report on Internal Control Over Financial Reporting and
on Compliance and Other Matters
(Continued)

Compliance and Other Matters

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

Purpose of this Report

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

December 4, 2014
Lexington, Kentucky

SCHEDULE OF FINDINGS AND RESPONSES

KENTUKCY RETIREMENT SYSTEMS
Schedule of Findings and Responses
Year ended June 30, 2014

Section I - Summary of Auditors' Results

a. The type of report issued on the financial statements: **Unmodified opinion**
b. Material weaknesses identified in the internal control over financial reporting: **No**
c. Significant deficiencies identified in the internal control over financial reporting: **No**
d. Non-compliance which is material to the financial statements: **No**

Section II - Summary of Findings and Responses

We noted no findings during the course of the audit.

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014

2013-KRS-01: KRS' Accounting System Does Not Have An Adequate Function Allowing For Supervisory Approvals Of Journal Entries

Corrective Action Taken

Management evaluated the feasibility of implementing the eMARS System more extensively. KRS operates on a full accrual accounting system and eMARS is a cash basis accounting system; eMARS is unable to handle the daily accruals that flow through the KRS accounting system.

Management worked with the Division of Information Technology to determine if an electronic approval process was available in Great Plains (general ledger system). Due to the lack of accountability resulting from a single shared password and the lack of justification to customize the application to provide approval functionality to individual users since a compensating control is available, KRS declined to implement the recommendation of instituting an approval process in the accounting system. KRS relies upon the manual journal entry review process implemented in the first quarter of fiscal 2014 to mitigate the associated risk.

Management will update the <u>Accounting Division Policy and Procedures Manual</u> to include manual transactions to be reviewed and approved by management.

2013-KRS-02: KRS Did Not Adequately Segregate Duties For Certain Accounts Receivable And Reconciliation Processes

Corrective Action Taken

The manual accruals for employer and member contributions are prepared by the Deputy Controller and reviewed and approved by the Controller prior to posting. In addition, Internal Audit performs a periodic review of the journal entries. The <u>Accounting Division Policy and Procedures Manual</u> will be updated to include the review/approval procedure.

2013-KRS-03: Revenues And Expenditures In EMARS And KRS' Financial Reporting System Are Not Reconciled

Corrective Action Taken

Accounting staff reviewed all codes in Great Plains to ensure they were correct. Most of the revenues of KRS are recorded through accruals which are not allowed in the eMARS system since it is cash basis. The Great Plains system and the eMARS system cannot be reconciled due to this fact. KRS reconciles cash to eMARS; the process to reconcile revenue and expense is pulled from the Great Plains system.

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014
(Continued)

2013-KRS-04: KRS Did Not Adequately Segregate Duties Related To Fixed Income Transactions

Corrective Action Taken

KRS trained an Investment Analyst to take over a properly segregated portion of the fixed income trading process.

2013-KRS-05: KRS' Financial Statement Preparation Process Is Not Adequate

Corrective Action Taken

In August 2014, Employer Reporting was transferred to another KRS area. This allowed the Accounting Division more time to focus on daily accounting management. KRS continues to strengthen internal controls and work closely with Internal Audit and the External Auditors. Please note the following specific comments:

Financial Statement and Journal Voucher Adjustment Errors

1. *The calculation error was due to a formula error in the spreadsheet used to develop an allocation for posting of the securities lending income which was provided as a single amount for pension and insurance. This situation was due to a switch in vendor for securities lending activities. The information was corrected.*
2. *The necessary information was not available at the time of posting. Therefore, to remain reasonable and consistent with prior year, the adjustment was continued in current year.*
3. *In prior years the routine has been to update securities lending income at the end of each fiscal year. However, due to updated reporting provided by the custodian this information was available on a monthly basis for fiscal 2013. As a result of the updated reporting and a delay in updating the year end procedures, related to the custodial bank conversion for securities lending activities, the income was posted twice. The adjustment was corrected for the overstatement and reflected in the financial statements.*
4. *The misstatement was due to an error in the leave liability report provided to accounting. An adjustment of $23,510 was made to correct the error; the leave liability report was updated to reflect the correct retirement rate.*
5. *This was due to relatively new procedures mandated by the Commonwealth of Kentucky to hold the June 30 payroll until July 1 which created an additional accrual of payroll liability. This accrual was posted and reflected in the financial statements.*
6. *While the accrual for this payment did not affect the transfer of funds between CERS and CHAZ, the transfer was made after the payment was submitted to the vendor in July 2013. The net balance of $4,665 was deemed immaterial based upon prior audit experience and not posted to fiscal 2013. The appropriate adjustments were made in fiscal 2014.*
7. *The net difference was zero. The largest variance was $631 in KERS. Due to the immateriality of the correction, KRS did not reopen the books for fiscal 2013. The correction was made in fiscal 2014.*

Notes to the Financial Statement Errors

8. *Note B [Plan Descriptions and Contribution Information]: The roll forward document prepared by the FY12 CPA firm did not update the column headings. KRS will work with the future external auditor to ensure that roll forward document is accurate. Note D [Investments]: Information was updated.*

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014
(Continued)

2013-KRS-05: KRS' Financial Statement Preparation Process Is Not Adequate (Continued)

Supplementary Information

9. *While the overall investment expense agreed to the financial statements, the referenced expenses were misclassified within the Schedule. Schedules were updated.*

2013-KRS-06: KRS Did Not Ensure Access To Its Pension Administration And Accounting Systems Was Appropriate

Corrective Action Taken

KRS provided awareness and education to management team members regarding the setup of new employees and employees that have transferred internally in a manner that provides least privilege. Additionally, KRS provided management, including Human Resources staff, with education regarding employees who leave the organization.

During March, April and May of 2013 KRS required every employee and manager to attend a SANS online training course, "Securing the Human", and answer test questions at the end of each segment of the training. Training consisted of up to 36 modules, including training relevant to this finding. Security training for all employees and managers commenced in December 2013 to ensure that staff fully understood risks and their responsibilities.

Additionally, KRS updated its existing Access Control Policy to ensure it is clear that the policy issues identified are also applicable to all systems, including START and Great Plains.

2013-KRS-07: KRS Did Not Properly Secure And Segregate Administrator Access Rights To Great Plains

Corrective Action Taken

KRS management performed a comprehensive review of rights to ensure that there were not additional issues with elevated and/or administrator privileges.

KRS IT management reviews administrator accounts on a regular basis to ensure compliance with KRS policies and appropriate activity monitoring.

2013-KRS-08: KRS' Process For Waiving Penalties Associated With Late Employer Contributions Is Not Adequate

Corrective Action Taken

The Controller compiles and presents a quarterly report to the Executive Director, Chief Operations Officer, and Audit Committee, which documents reasons for penalty waivers. The Accounting Division Policy and Procedures Manual will be updated to reflect penalty and interest procedures. Additionally, journal comments in START are utilized to denote penalty waivers.

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014
(Continued)

2013-KRS-09: KRS Quarterly And Year End Accounts Receivable Process Does Not Report Receivables Accurately

Corrective Action Taken

In fiscal 2014, the accrual amounts were updated. In addition, management developed specific written procedures for the posting and accrual of employer/member contributions. Delinquent contributions are reviewed as part of the accrual process.

Management reviewed the employer delinquent list to determine the estimated delinquent amount to be accrued.

Management will update the Accounting Division Policy and Procedures Manual accordingly.

2013-KRS-10: KRS Did Not Classify Intangible Assets Correctly

Corrective Action Taken

This amount was corrected and updated for accurate footnote disclosure. In addition, the fixed and intangible assets were adjusted for fiscal 2014.

Currently, KRS reviews all fixed and intangible asset expenditures at the end of each fiscal year. Those items that meet the capitalization policy requirements are then capitalized to the appropriate category. As a result, depreciation and amortization are calculated in the next fiscal year since the items were capitalized as of June 30 of each fiscal year.

KRS reviewed its procedures for classifying fixed and intangible assets to the appropriate category as well as investigated the programming of the Great Plains General Ledger System to ensure that it was programmed appropriately to calculate depreciation and amortization expenses. Also as an additional control, KRS developed a year end checklist to ensure that the appropriate general journal entries are posted to the correct general ledger accounts.

2013-KRS-11: KRS Does Not Have Procedures Established To Ensure Investments Are Recorded In The Proper Accounting Period

Corrective Action Taken

The negative cash balance was a result of the Division of Investments funding a new manager during the latter part of June 2013 and all transactions related to that funding had not yet settled as of June 30, 2013. The final transaction settlement was posted on July 1, 2013, but was updated in the fiscal 2013 financial statements. While the funding of a manager is a routine process, it is unusual for this to occur at the end of the fiscal year. Despite this negative cash balance, there was no overdraft of cash. This was merely a bookkeeping transaction that was awaiting final allocation. Management confers with the Division of Investments prior to posting any investment data to the general ledger system.

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014
(Continued)

2013-KRS-11: KRS Does Not Have Procedures Established To Ensure Investments Are Recorded In The Proper Accounting Period (Continued)

Management will update the Accounting Division Policy and Procedures Manual to include investments in the approval process for the monthly recording of investment activity.

2013-KRS-12: KRS Does Not Have An Adequate Contract Monitoring Process

Corrective Action Taken

The KRS Legal department developed and maintains a contract log in Excel (vendor name, annual contract amount, total contract value, time period of contract, and brief description). In July 2013, the KRS Accounting area implemented a payment tracking process that lists all monthly expenses by general ledger account number, date paid, vendor/payee name, amount, and description. This information is provided to the business unit directors for review. This information can be cross-referenced to the contract log maintained by the Legal department. Additionally, the Accounting Division Policy and Procedures Manual will be updated to reflect this process.

2013-KRS-13: KRS Does Not Document Notifications To Delinquent Employers Nor Notify Members Of Delinquent Installment Service Purchase Payments

Corrective Action Taken

KRS does not store all automatic emails sent to employers in the START imaging system. The majority of these emails are generic in nature and do not give specific information.

KRS does not notify members of delinquent IPS payments because they are submitted by the employers through payroll deduction and the monthly reporting process. The majority of the IPS delinquencies are due to issues stemming from KHRIS System implementation. Currently, accounting staff members are personally contacting employers to notify them of IPS delinquencies. A log is kept for documentation of those contacts. START does have a reporting module that would provide employers a monthly report of any delinquent IPS payments. KRS will assess the progress made in the KHRIS employer reporting file, and determine the best date to begin including this report in the employer monthly packet.

2013-KRS-14: KRS Did Not Complete Monthly Fixed Income Reconciliations For Seven Months During Fiscal Year 2013

Corrective Action Taken

KRS prepared written policies and procedures to document the reconciliation process including the initiation of a review and sign off process for the monthly fixed income reconciliations.

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014
(Continued)

2013-KRS-15: The Accuracy Of The Plan Splits For The Administrative Budget Cannot Be Verified

Corrective Action Taken

The Administrative Allocation is based upon the member by system report which was pulled on August 24, 2013. In early September 2013, the report was updated with Problem Incident Request (PIR) 16713 for CAFR reporting. However, the updates made with PIR 16713 was not reflected in the Administrative Allocation. Staff will work to ensure any updates made are communicated to all who depend on the reported information.

A correction (CMTRX#00012391) was made to move funds from KHAZ to KERS in the amount of $65,017 and also a correction to move funds from CHAZ to CERS in the amount of $275,364 in fiscal 2014. The financial impact to fiscal 2013 amounted to 0.1% in the K plans and 0.7% in the C plans, both of which were immaterial, based upon prior audit experience.

2013-KRS-16: KRS Is Not Performing All Post-Retirement Audits Of Retiree Accounts

Corrective Action Taken

At the time START was implemented, August 27, 2011, there was a backlog of approximately 2,900 legacy retirements needing post-retirement audits. Approximately 2,500 legacy post-retirement audits have been completed since that time. The current backlog has been reduced to less than 400. Approximately 1,000 post-retirement recalculations on START retirements were completed as well. All of the remaining legacy audits are associated with the KHRIS System implementation.

The Division of Member Services has redeployed staff and has a dedicated team to work solely on legacy post-retirement audits. The remaining legacy audits were completed by the end of the year. At that time, the focus shifted to non-zero balance account reviews and the recalculation requests that were generated as a result of the Non-Zero Balance (NZB) report. KRS tested the NZB report and implemented it upon completion of the testing.

2013-KRS-17: Federal Taxes Were Not Properly Withheld From Refunds

Corrective Action Taken

The 20% federal tax withholding did not occur for ten (10) of the eleven (11) audited refunds. However, for one of the audited accounts, the member elected to rollover the portion subject to taxation into a qualified plan so the 20% withholding was correctly not withheld. For the remaining ten (10) audited accounts, the amount refunded was less than $200 and represented either fiscal year end interest that was credited to the accounts after the initial refund or the refund amount represented contributions that were "trailing" due to late reporting from the member's employer. The 20% federal tax withholding did not occur for these distributions for the following reason:

> *A business rule exists in START that requires the distribution to be $200 or greater before the mandatory 20% federal tax withholding occurs.*

KENTUCKY RETIREMENT SYSTEMS
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
For the Fiscal Year Ended June 30, 2014
(Continued)

2013-KRS-17: Federal Taxes Were Not Properly Withheld From Refunds (Continued)

The above-referenced business rule also existed in KRS' legacy system as a result of staff's understanding from KRS' federal tax counsel. The application of this business rule has been referred for review again by KRS' federal tax counsel. If counsel advises KRS to aggregate all distributions within a single tax year, KRS can remove the business rule so that all taxable distributions, without regard to amount, will be subject to 20% withholding unless member elects to rollover the funds into a qualified plan.

2013-KRS-18: The Compliance Officer Did Not Complete Monthly Reviews Of Investment Transactions Timely

Corrective Action Taken

The monthly reviews should have been conducted in a timelier manner. However, reviews for June 2013 could not have been completed on June 30, 2013 since information from the investment managers and the custodial bank is typically available beginning fifteen business days after the month end.

The backlog of reviews was a result of the transition of the previous Compliance Officer to the Deputy Controller's position. Reviews of income, principal paydowns (fixed income only) along with purchase and sell transactions, for both equity and fixed income asset classes, for the entire 2013 fiscal year have been completed. Capital call and manager distributions received for the alternative asset class has also been reconciled for the entire 2013 fiscal year.

The Compliance Officer completes reviews in a timelier manner. Additionally, procedures have been implemented so that Internal Audit personnel may serve as a back-up in performing the Compliance Officer's duties.

2013-KRS-19: KRS Incorrectly Paid An Invoice From The Custodian Bank

Corrective Action Taken

KRS date stamps the receipt date of invoices and procedures have been developed to verify the custodian calculation is consistent with the current contract.

KRS notified all who receive invoices to provide documentation of the receipt date with the invoice.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Review of Quarterly Financial Statements For the Quarter Ended September 30, 2014

The quarterly financial statements for the quarter ended September 30, 2014, are attached. Please note that the financial highlights of the financial statements are also included.

RECOMMENDATION: This memorandum is presented for informational purposes only.

KENTUCKY RETIREMENT SYSTEMS

Unaudited Financial Statements as of September 30, 2014

Summary Comments

PENSION FUNDS - Quarter Ending September 30, 2014

Plan Net Position: Total Plan Assets = $11.7 billion vs. $11.4 billion from prior year (increase of 3%)

ASSETS

- Cash and Short-term Investments decreased by $140.3 million with cash being invested in longer term vehicles through New Managers and Capital Calls
- Total Receivables improved by $71 million caused by increased employer contribution rates (ARC)
- Fair Value of Investments increased by $268 million related to changes in Derivates, Absolute Return and Real Estate portfolios
- Security Lending Collateral decreased by $873 million resulting from a reduction in the number of managers participating in the current program
- Fixed Assets decreased by $5.5 million due to accumulated depreciation and the capitalization threshold moving from $750 to $3,000

LIABILITIES:

- Total Liabilities decreased by $980 million related to Security Lending Collateral ($873 million) and reductions in Accounts Payable

Changes Plan Net Position: Total Income less Expenses = $(310.6) million compared to $252.1 million for prior year, (decrease of 223%)

ADDITIONS

- Total Contributions increased by $84.2 million due to the added Employer Payments, increased in Service Purchases, and Bank of America Settlement

INVESTMENT INCOME

- Total Investment Income declined $628 million from prior year quarter because of market conditions, slightly offset by increased interest/dividends and lower investment expenses

DEDUCTIONS

- Total Deductions increased by $18.5 million driven primarily by increased benefit payments

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENTS OF PLAN NET ASSETS
PENSION FUNDS
As of September 30, 2014
(Unaudited)(In Whole Dollars)

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013	Variance	
ASSETS									
Cash and Short-term Investments									
Cash Deposits	$2,504,751	$607,163	$54,277	$104,394	$53,803	$3,324,388	$3,174,339	5%	
Short-term Investments	$81,367,791	$139,051,014	$6,485,460	$41,744,907	$12,958,882	$281,608,054	$422,096,575	-33%	1
Total Cash and Short-term Investments	$83,872,541	$139,658,178	$6,539,737	$41,849,300	$13,012,685	$284,932,442	$425,270,914		
RECEIVABLES									
Accounts Receivable	62,479,399.21	48,043,328.71	3,887,556.97	17,856,184.34	5,396,805.51	137,663,274.74	101,742,562.25	35%	2
Accounts Receivable - Investments	$172,101,316	$385,326,224	$16,165,848	$126,826,076	$33,657,385	$734,076,851	$698,914,487	5%	
Accounts - Alternate Participation				$107,629		$107,629	$113,526	-5%	
Total Receivables	$234,580,716	$433,369,553	$20,053,405	$144,789,890	$39,054,191	$871,847,754	$800,770,575		
INVESTMENTS, AT FAIR VALUE									
Fixed Income	$669,351,694	$1,574,496,000	$61,114,320	$521,275,343	$132,251,001	$2,958,488,357	$2,992,454,158	-1%	
Public Equities	$886,638,867	$2,981,592,061	$111,579,615	$943,940,654	$247,015,459	$5,170,766,656	$5,144,060,834	1%	
Private Equities	$397,137,948	$642,078,525	$29,319,675	$210,427,964	$64,236,521	$1,343,200,632	$1,345,280,371	0%	
Derivatives	$1,051,094	$2,555,593	$105,049	$835,383	$227,303	$4,774,422	($901,108)	630%	3
Absolute Return	$281,324,531	$707,572,184	$28,650,976	$224,658,818	$60,523,354	$1,302,729,862	$1,224,541,151	6%	
Real Estate	$91,235,696	$257,636,008	$10,447,039	$82,913,077	$24,896,153	$467,127,974	$274,024,613	70%	4
Total Investments, at Fair Value	$2,326,739,830	$6,165,930,370	$241,216,675	$1,984,051,239	$529,149,791	$11,247,087,904	$10,979,460,019		
Security Lending Collateral Invested	$91,335,530	$231,306,879	$9,251,460	$75,094,480	$20,065,524	$427,053,873	$1,300,090,112	-67%	5
FIXED/INTANGIBLE ASSETS									
Fixed Assets	$821,864	$1,518,647	$8,782	$137,744	$82,214	$2,569,251	$6,752,838	-62%	6
Intangible Assets	$5,559,575	$9,363,350	$91,632	$775,454	$464,278	$16,254,290	$16,254,290	0%	
Accumulated Depreciation	($754,961)	($1,394,298)	($8,116)	($126,434)	($75,450)	($2,359,259)	($2,869,081)	-18%	7
Accumulated Amortization	($2,194,716)	($3,630,062)	($41,701)	($301,861)	($173,936)	($6,342,276)	($4,479,191)	42%	8
Total Fixed Assets	$3,431,762	$5,857,637	$50,598	$484,903	$297,107	$10,122,007	$15,658,856		
Total Assets	$2,739,960,379	$6,976,122,616	$277,111,876	$2,246,269,811	$601,579,299	$12,841,043,980	$13,521,250,475		
LIABILITIES									
Accounts Payable	$1,985,683.26	$4,444,781.25	$279,600.04	$1,194,072.78	$1,985,492.07	$9,889,629.40	$3,042,591.09	225%	9
Investment Accounts Payable	$164,235,009	$366,481,156	$15,432,168	$120,570,486	$32,069,324	$698,788,142	$812,824,042	-14%	10
Securities Lending Collateral	$91,335,530	$231,306,879	$9,251,460	$75,094,480	$20,065,524	$427,053,873	$1,300,090,112	-67%	11
Total Liabilities	$257,556,222	$602,232,816	$24,963,228	$196,859,038	$54,120,341	$1,135,731,645	$2,115,956,745		
Total Plan Net Assets	$2,482,404,156	$6,373,889,801	$252,148,648	$2,049,410,773	$547,458,958	$11,705,312,335	$11,405,293,730		

NOTE - Variance Explanation

1 *Cash is being invested in longer term vehicles through New Managers and Capital Calls*
2 *Increase in Employer Contributions Rate for FY 2015*
3 *Non US Equity and Fixed Income have hedged back to dollars*
4 *Increase in Real Estate Managers and those managers putting money to work.*
5 *Reduce the number of managers participating in the Securities Lending Program*
6 *In FY 2014 a review of the Fixed Asset Policy was done which resulted in an increase in the individual threshold from $750 to $3,000 per item. A clean up was done to remove any items that were below the threshold.*
7 *In FY 2014 a review of the Fixed Asset Policy was done which resulted in an increase in the individual threshold from $750 to $3,000 per item. A clean up was done to remove any items that were below the threshold.*
8 *In FY 2014 a review of the Fixed Asset Policy was done which resulted in an increase in the individual threshold from $750 to $3,000 per item. A clean up was done to remove any items that were below the threshold.*
9 *Increase in Credit Invoices (Refunds to Employers) Ex. Refund of non averaging service and contributions*
10 *Reduction in Investment Expense and Variance in transactional Activity*
11 *Reduce the number of managers participating in the Securities Lending Program*

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENTS OF CHANGES IN PLAN NET ASSETS
PENSION FUNDS
For the Three Months Ending September 30, 2014
(Unaudited)(In Whole Dollars)

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013		
ADDITIONS									
Member Contributions	$29,144,064	$29,769,323	$1,180,598	$12,188,779	$3,106,300	$75,389,064	$60,851,435	24%	1
Employer Contributions	$124,759,356	$63,729,841	$6,730,776	$27,657,924	$5,426,551	$228,304,448	$182,130,466	25%	2
Pension Spiking Contributions	$16,391	$165,824	$0	$23,329	$1,562	$207,106			
Bank of America Settlement	$8,442,347	$10,280,391	$644,756	$2,865,365	$767,141	$23,000,000			
Health Insurance Contributions (HB1)	$1,005,890	$1,321,398	$19,685	$276,023	$124,691	$2,747,688	$2,459,100	12%	3
Total Contributions	$163,368,048	$105,266,776	$8,575,816	$43,011,420	$9,426,246	$329,648,306	$245,441,001		
INVESTMENT INCOME									
From Investing Activities									
Net Appreciation in FV of Investments	($42,668,480)	($131,911,011)	($5,216,343)	($41,374,437)	($11,161,112)	($232,331,383)	$414,218,214	-156%	4
Interest/Dividends	$18,539,360	$40,189,524	$1,694,301	$12,838,832	$3,552,144	$76,814,161	$61,407,429	25%	5
Total Investing Activities Income	($24,129,120)	($91,721,487)	($3,522,041)	($28,535,606)	($7,608,968)	($155,517,222)	$475,625,643		
Investment Expense	$2,053,959	$6,356,013	$241,360	$2,051,731	$557,436	$11,260,499	$14,338,141	-21%	6
Net Income from Investing Activities	($26,183,079)	($98,077,500)	($3,763,401)	($30,587,336)	($8,166,404)	($166,777,721)	$461,287,501		
From Securities Lending Activities									
Securities Lending Income	$172,281	$463,517	$16,890	$150,013	$38,319	$841,021	$1,319,706	-36%	7
Securities Lending Expense									
Securities Lending Borrower Rebates	$49,890	$76,084	$3,221	$25,122	$7,162	$161,479	$152,654	6%	
Security Lending Agent Fee	$10,342	$37,676	$1,234	$12,181	$2,910	$64,343	$193,886	-67%	8
Security Lending Commission Expense									
Net Income from Securities Lending	$112,049	$349,757	$12,436	$112,710	$28,248	$615,199	$973,165		
Total Investment Income	($26,071,030)	($97,727,743)	($3,750,965)	($30,474,627)	($8,138,157)	($166,162,522)	$462,260,667		
Total Additions	$137,297,018	$7,539,033	$4,824,850	$12,536,794	$1,288,089	$163,485,784	$707,701,667		
DEDUCTIONS									
Benefit Payments	$225,031,652	$151,260,381	$13,562,600	$48,746,014	$13,946,048	$452,546,695	$437,285,226	3%	
Refunds	$4,442,041	$4,249,937	$326	$846,174	$1,045,216	$10,583,694	$8,937,082	18%	9
Administrative Expenses	$3,658,943	$6,328,262	$82,554	$541,428	$329,508	$10,940,695	$9,367,976	17%	10
Total Deductions	$233,132,636	$161,838,580	$13,645,480	$50,133,616	$15,320,772	$474,071,084	$455,590,284		
Net Increase(Decrease) in Plan Net Assets	($95,835,618)	($154,299,547)	($8,820,630)	($37,596,822)	($14,032,683)	($310,585,300)	$252,111,383	-223%	
PLAN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS									
Beginning of Period	$2,578,239,775	$6,528,189,345	$260,969,287	$2,087,007,595	$561,491,642	$12,015,897,645	$11,153,182,356		
End of Period	$2,482,404,156	$6,373,889,798	$252,148,658	$2,049,410,773	$547,458,959	$11,705,312,345	$11,405,293,740		

NOTE - Variance Explanation

1 *Increase is due to addition of Employer Pay Credit and Increase in Service Purchases*
2 *Increase in Employer Contribution Rate overall increase of 27.50%*
3 *This will continue to increase through the years as new employees join the system*
4 *Unfavorable Market Conditions*
5 *Increase in income due to prior periods enhanced performance*
6 *Downward trend in the Market results in lower manager fees*
7 *Reduce the number of managers participating in the Securities Lending Program*
8 *Reduce the number of managers participating in the Securities Lending Program*
9 *Change in Legislation cause a great deal of interest in request for refund as well as purchase of refunded service.*
10 *Increase in Budget Transfer due to increase in overall Budget*

KENTUCKY RETIREMENT SYSTEMS

Unaudited Financial Statements as of September 30, 2014

Summary Comments

INSURANCE FUNDS - Quarter Ending September 30, 2014

Plan Net Position: Total Plan Assets = $4.1 billion vs. $3.7 billion from prior year (increase of 11%)

ASSETS

- Cash and Short-term Investments decreased by $92.5 million with cash being invested in longer term vehicles through New Managers and Capital Calls
- Total Receivables increased $89.3 million due to investments and partially offset by lower employer insurance contributions (rate change for fiscal 2015)
- Securities Lending Collateral and Security Lending Collateral Invested has reduced by $409.6 million as a result of the reduction in the number of managers participating in the current Program

LIABILITIES:

- Total liabilities decreased by $311.2 million related to Securities Lending Collateral changes

Changes Plan Net Position: Total Income less Expenses = $(48.4) million compared to $180.3 million for prior year, (decrease of 73%)

ADDITIONS

- Total Contributions decreased by $22 million related to required employer contribution rates (overall reduction of 19.3%)

INVESTMENT INCOME

- Total Investment Income declined $212 million from prior year quarter because of market conditions, slightly offset by increased interest/dividends and lower investment expenses

DEDUCTIONS

- Total deductions declined by $5.1 million due to lower health care expense (move from self funded to Humana)

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATEMENTS OF NET POSITION
INSURANCE FUNDS
As of September 30, 2014
(Unaudited)(In Whole Dollars)

	KERS	**CERS**	**SPRS**	**CHAZ**	**KHAZ**	**2014**	**2013**		
ASSETS									
Cash and Short-Term Investments									
Cash Deposits	$290,090	$532,969	$100,900	$15,363	$58,263	$997,584	$3,765,713	-74%	1
Short-term Investments	$16,694,707	$40,888,058	$3,384,384	$17,460,079	$8,734,705	$87,161,934	$176,922,742	-51%	2
Medicare Drug Deposit	$19,908	$42,340	$4,613	$22,707	$10,483	$100,051	$100,010	0%	
Total Cash and Short-term Investments	$17,004,705	$41,463,367	$3,489,898	$17,498,150	$8,803,451	$88,259,570	$180,788,465		
RECEIVABLES									
Accounts Receivable	12,510,676.68	9,854,012.07	934,952.53	6,016,987.24	1,361,997.82	30,678,626.34	34,593,055.85	-11%	3
Investment Accounts Receivable	$45,262,096	$126,667,280	$11,638,826	$71,157,326	$30,931,072	$285,656,599	$192,442,134	48%	4
Total Receivables	$57,772,772	$136,521,292	$12,573,778	$77,174,313	$32,293,070	$316,335,226	$227,035,189		
INVESTMENTS, AT FAIR VALUE									
Security Lending Collateral Invested	$3,312,645	$4,976,918	$467,715	$2,574,005	$1,181,088	$12,512,371	$422,064,130	-97%	5
Fixed Income	$230,658,601	$646,783,643	$57,021,658	$356,936,377	$150,105,425	$1,441,505,704	$1,211,490,355	19%	6
Public Equities	$248,296,506	$740,010,592	$62,548,939	$405,542,730	$172,033,200	$1,628,431,967	$1,546,267,879	5%	
Derivatives	$173,357	$536,296	$48,088	$297,029	$125,705	$1,180,474	$44,921	2528%	7
Private Equities	$42,781,669	$140,998,723	$13,536,541	$78,318,263	$30,342,298	$305,977,495	$230,678,729	33%	8
Absolute Return	$69,887,638	$197,610,199	$17,813,059	$111,564,548	$46,663,984	$443,539,427	$384,566,135	15%	9
Real Estate	$24,093,978	$78,019,185	$6,900,500	$42,862,027	$18,048,721	$169,924,411	$112,150,518	52%	10
Total Investments, at Fair Value	$615,891,749	$1,803,958,637	$157,868,785	$995,520,974	$417,319,332	$3,990,559,478	$3,485,198,536		
Total Assets	$693,981,871	$1,986,920,214	$174,400,176	$1,092,767,442	$459,596,941	$4,407,666,645	$4,315,086,320		
LIABILITIES									
Accounts Payable	$20,761	$51,949	$6,504	$40,852	$17,180	$137,246	$8,382,977	-98%	11
Investment Accounts Payable	$45,810,872	$128,075,664	$11,759,492	$72,020,737	$31,344,545	$289,011,310	$182,452,329	58%	12
Securities Lending Collateral	$3,312,645	$4,976,918	$467,715	$2,574,005	$1,181,088	$12,512,371	$422,064,130	-97%	13
Total Liabilities	$49,144,279	$133,104,531	$12,233,711	$74,635,593	$32,542,813	$301,660,927	$612,899,437		
Total Plan Net Assets	$644,837,593	$1,853,815,683	$162,166,465	$1,018,131,848	$427,054,128	$4,106,005,717	$3,702,186,884		

NOTE - Variance Explanation

1. *Reduction in the amount of cash held at Depository Bank*
2. *Cash is being invested in longer term vehicles through New Managers and Capital Calls*
3. *Reduction in Employer Contribution Rates for the Insurance Fund, overall reduction of 19.29%.*
4. *Variance is a result of transactions activity which is based on each individual manager*
5. *Reduce the number of managers participating in the Securities Lending Program*
6. *Investment Growth*
7. *Non US Equity and Fixed Income have hedged back to dollars*
8. *The hiring of new Private Equity Managers and Capital Calls*
9. *The hiring of new Absolute Return Managers*
10. *Increase in Real Estate Managers and those managers putting money to work.*
11. *Correction to HIC and Health Insurance Reimbursement Accounts*
12. *Variance in Accounts Payable is a result of the initial set up of receivables with the Transition from NT to BNY Mellon.*

KENTUCKY RETIREMENT SYSTEMS
COMBINING STATMENTS OF CHANGES NET POSITION
INSURANCE FUNDS
For the Three Months Ending September 30, 2014
(Unaudited)(In Whole Dollars)

	KERS	CERS	SPRS	CHAZ	KHAZ	2014	2013		
ADDITIONS									
Employer Contributions	$33,670,073	$24,545,226	$2,749,594	$18,184,461	$3,646,975	$82,796,330	$102,887,134	-20%	1
Insurance Premiums	$62,989	$140,874	$359	$2,152	$4,438	$210,811	$1,903,527	-89%	2
Retired Reemployed Healthcare	$652,261	$919,028		$106,771	$143,348	$1,821,408	$1,996,338	-9%	
Total Contributions	$34,385,323	$25,605,128	$2,749,953	$18,293,384	$3,794,761	$84,828,548	$106,786,999		
INVESTMENT INCOME									
From Investing Activities									
Net Appreciation in FV of Investments	($12,555,367)	($35,117,120)	($3,076,513)	($19,222,112)	($8,221,238)	($78,192,351)	$136,866,517	-157%	3
Interest/Dividends	$3,565,253	$9,537,844	$879,971	$5,187,277	$2,298,283	$21,468,628	$18,196,795	18%	4
Total From Investing Activities	($8,990,114)	($25,579,277)	($2,196,542)	($14,034,835)	($5,922,954)	($56,723,722)	$155,063,312		
Investment Expense	$599,112.90	$2,046,001.35	$179,506.41	$1,128,186.21	$452,913.93	$4,405,720.80	$4,478,096.46	-2%	
Net Income from Investing Activities	($9,589,227)	($27,625,278)	($2,376,048)	($15,163,021)	($6,375,868)	($61,129,443)	$150,585,215		
From Securities Lending									
Securities Lending Income	$40,666	$124,156	$10,556	$69,068	$28,371	$272,816	$438,216	-38%	5
Securities Lending Expense									
Security Lending Borrower Rebates	($21,825)	($64,606)	($5,651)	($35,153)	($14,895)	($142,129)	($140,954)	1%	
Security Lending Agent Fees	$2,596	$8,327	$678	$4,648	$1,868	$18,117	$59,259	-69%	6
Net Income from Securities Lending	$59,895	$180,434	$15,529	$99,573	$41,398	$396,829	$519,911	-24%	7
Total Net Income from Investments	($9,529,332)	($27,444,844)	($2,360,520)	($15,063,449)	($6,334,471)	($60,732,614)	$151,105,126		
Total Additions	$24,855,991	($1,839,716)	$389,433	$3,229,935	($2,539,710)	$24,095,934	$257,892,125		
DEDUCTIONS									
Healthcare Premiums Subsidies	$26,331,636	$22,280,209	$3,177,629	$15,385,283	$3,903,030	$71,077,787	$76,288,465	-7%	
Administrative Expense							$457,187	-100%	8
Self Funded Healthcare Costs	$587,773	$769,953	$2,322	$16,385	$27,585	$1,404,019	$808,051	74%	9
Excise Tax Insurance	$3,182	$5,620	$48	$208	$136	$9,194	$40,340	-77%	10
Total Deductions	$26,922,591	$23,055,783	$3,179,999	$15,401,876	$3,930,751	$72,491,000	$77,594,044		
Net Increase(Decrease) in Plan Net Assets	($2,066,600)	($24,895,498)	($2,790,566)	($12,171,941)	($6,470,461)	($48,395,066)	$180,298,080		
NET PLAN ASSETS HELD IN TRUST FOR	$646,904,183	$1,878,711,180	$164,957,032	$1,030,303,789	$433,524,589	$4,154,400,773	$3,521,888,793		
INSURANCE BENEFITS	$644,837,583	$1,853,815,682	$162,166,466	$1,018,131,848	$427,054,128	$4,106,005,707	$3,702,186,874		

NOTE - Variance Explanation

1 *Reduction in Employer Contribution Rates for the Insurance Fund, overall reduction of 19.29%.*
2 *Move from Self Funding Insurance Program to Premiums Based Program*
3 *Unfavorable Market Conditions*
4 *Increase in income due to prior periods enhanced performance*
5 *Reduce the number of managers participating in the Securities Lending Program*
6 *Reduce the number of managers participating in the Securities Lending Program*
7 *Reduce the number of managers participating in the Securities Lending Program*
8 *Move from Self Funding Insurance Program to Premiums Based Program*
9 *FY 2014 Cost are reduced by the Medicare Pharmaceutical Rebates from prior years.*
10 *Excise is based on number of Self Funded Insurance Participates KRS Administers which has reduced significantly since last year due to move from self funding Insurance Program to Premiums Based Program*

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Draft Comprehensive Annual Financial Report (CAFR) for FY 2014

Accompanying this memorandum you will find for your review the draft CAFR for the fiscal year ended June 30, 2014. Although minor changes may need to be made after approval, the Board will be asked at the meeting to approve the publication of the 2014 CAFR.

RECOMMENDATION: The Executive Director recommends that the board approve the publication of the 2014 CAFR with the addition of any stylistic, grammatical or other minor changes that may need to be made.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Valuation Presentation PowerPoint and 2014 Final Valuations for KERS, SPRS and CERS Systems

Accompanying this memorandum you will find for your review the PowerPoint presentation that Tom Cavanaugh, our principal actuary and his staff, will use to present the 2014 valuations for the KERS, SPRS and CERS systems. I have also attached to this memorandum copies of the final valuations for each system.

RECOMMENDATION: Recommendations regarding the employer contribution rates that are actuarially required as a result of the 2014 valuations will be presented at the meeting by the KRS actuary, Cavanaugh Macdonald.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: 2008-2014 Experience Study Report and Recommendations

Accompanying this memorandum you will find for your review the 2008-2013 Experience Study Report prepared by Cavanaugh Macdonald, the KRS actuary. Also accompanying this memorandum you will find a copy of the PowerPoint presentation made at the May 5, 2014 KRS Board meeting by Mr. Tom Cavanaugh. Mr. Cavanaugh will be present at the meeting to once again review the recommendations of the Experience Study for the Board consideration. Any recommendations that the Board wishes to approve should be approved prior to the beginning of the Asset-Liability Modeling (ALM)Study that will begin later in December so that any new actuarial assumptions can be take into account during the ALM study.

RECOMMENDATION: Recommendations will be presented at the Board meeting by the KRS actuary.

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The experience and dedication you deserve

Kentucky Retirement Systems
Experience Study
July 1, 2008 to June 30, 2013

Table of Contents

Key Findings

- Recommended Demographic Assumption Changes
  - Adjust withdrawal, retirement and mortality decrements for all Systems to better match experience
  - Adjust disability decrements for KERS Non-Hazardous, KERS Hazardous, and CERS Non-Hazardous to better match experience
  - Adjust certain coverage assumptions for retiree healthcare benefits to better match experience

Key Findings

➢ Recommended Economic Assumption Changes

Item	Current	Proposed
Price Inflation	3.50%	3.25%
Investment Return	7.75%	7.50%
Wage Inflation	4.50%	4.00%

Demographic Assumptions

- Assumptions Reviewed
  - Rates of Withdrawal
  - Rates of Pre-Retirement Mortality
  - Rates of Disability Retirement
  - Rates of Retirement
  - Rates of Post-Retirement Mortality
  - Rates of Salary Increase

- Actuarial Standard of Practice (ASOP) No. 35, *"Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations"*, which provides guidance to actuaries in selecting demographic assumptions for measuring obligations under defined benefit plans.

Demographic Assumptions

- Study compares what actually happened during the study period (7/01/2008 through 6/30/2013) with what was expected to happen.
- Assumption changes recommended if actual experience differs significantly from expected.
- Judgment required to extrapolate future experience from past experience.

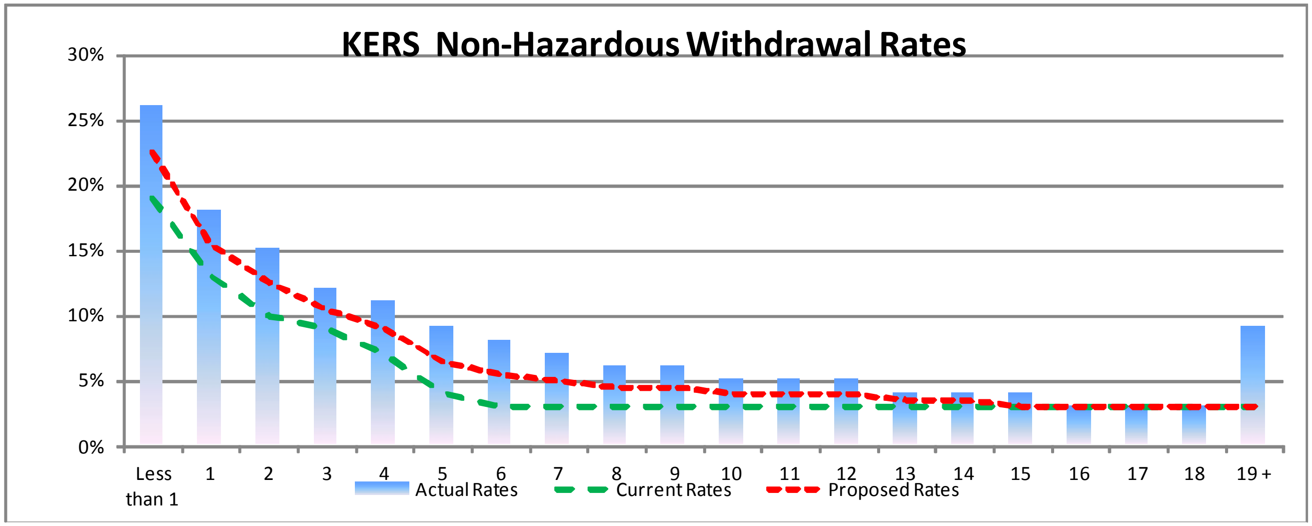
Demographic Assumptions

- Funds reviewed (pension and healthcare)
  - KERS Non-Hazardous
  - KERS Hazardous
  - CERS Non-Hazardous
  - CERS Hazardous
  - SPRS
- Results compare actual and expected decrements and present recommended changes, if any.
- Next slides use KERS Non-Hazardous as an example.

Demographic Assumptions

- Withdrawal –
  - Eliminated a specific Select Period as all rates were moved to service based.
  - Increased all effective rates through 15 years of service.

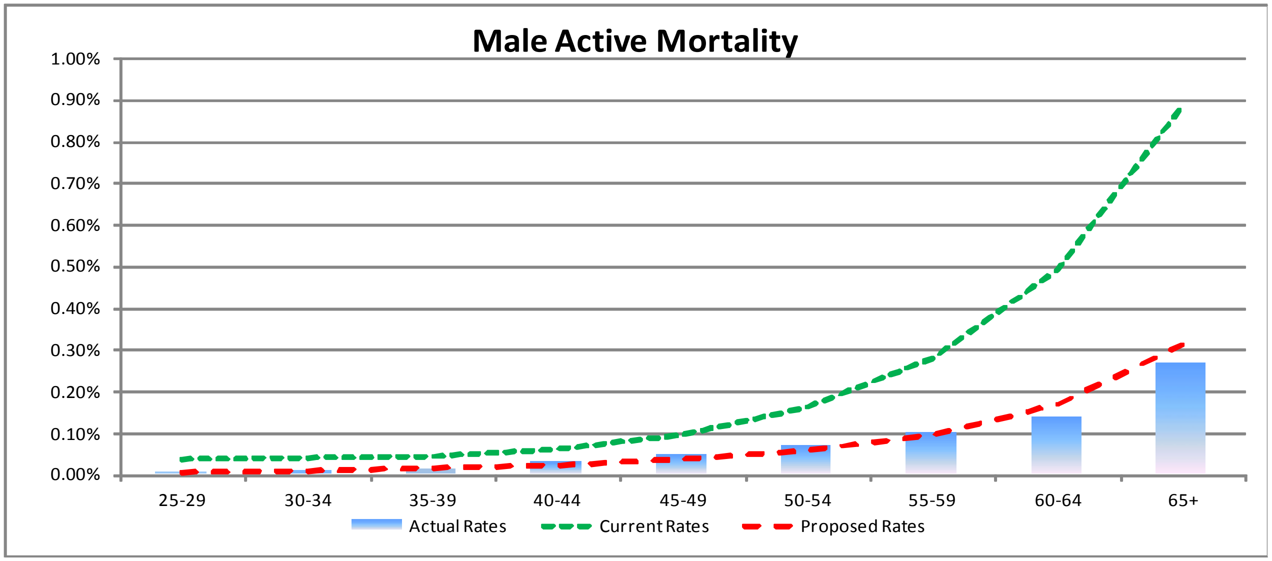
Demographic Assumptions



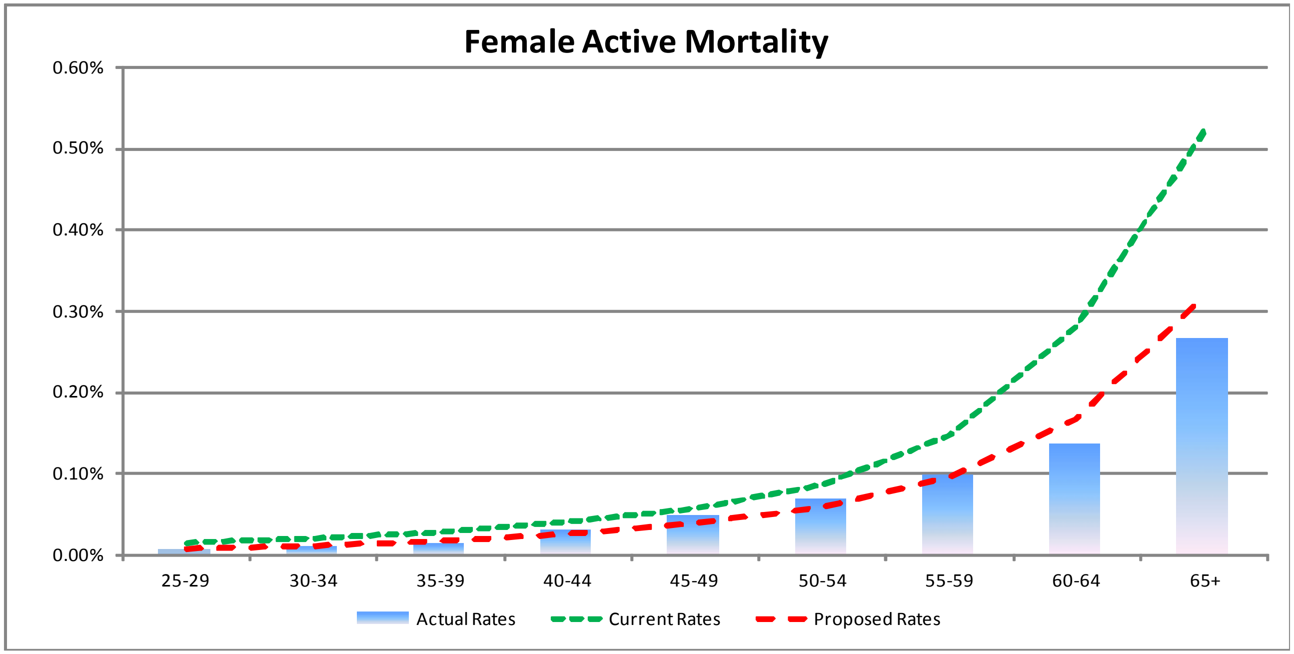
Demographic Assumptions

- Pre-Retirement Mortality
  - Compared Actual versus Expected in Aggregate
  - Much less actual deaths in active service than expected.
  - Recommend using half the post-retirement mortality assumption (RP-2000 Combined Mortality Table)

Demographic Assumptions



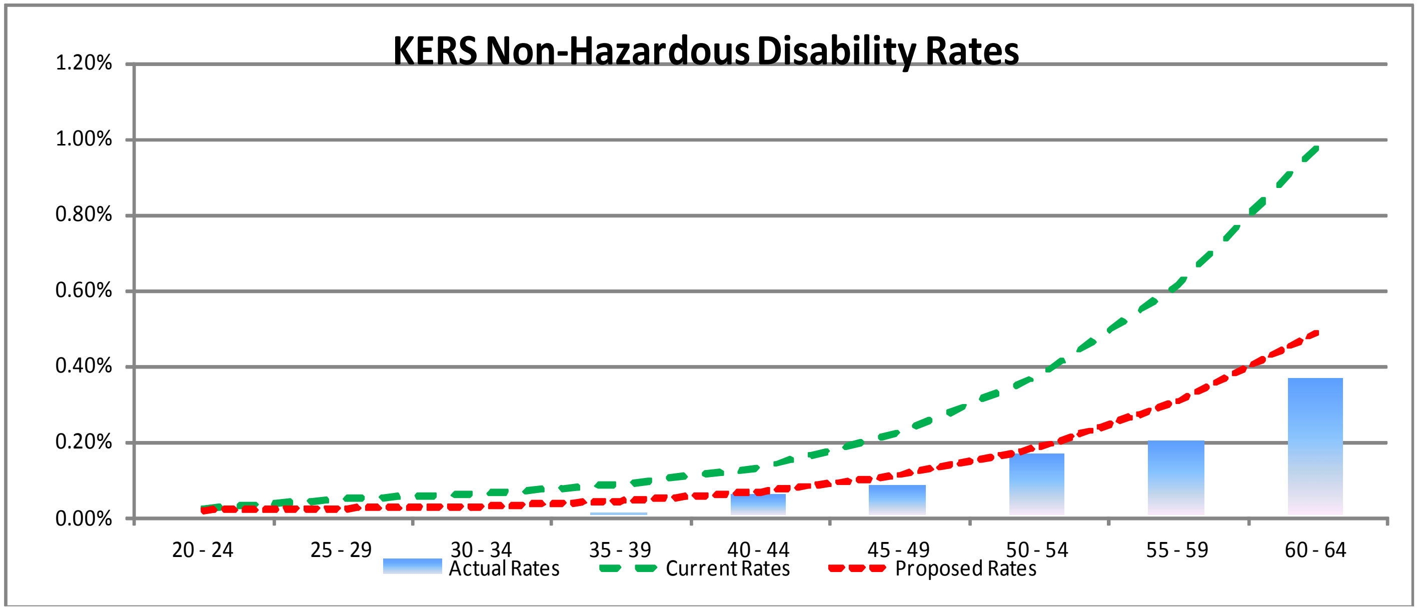
Demographic Assumptions



Demographic Assumptions

- Disability Retirement
  - Compared Actual versus Expected by Fund
  - For all funds except SPRS, there were far fewer actual disability retirements than expected.
  - Previous study showed a similar pattern.
  - Lowered disability rates for KERS Non-Hazardous, KERS Hazardous and CERS Non-Hazardous but not as much as current experience would suggest.
  - Exposures for CERS Hazardous and SPRS were not sufficient to generate a recommended change.

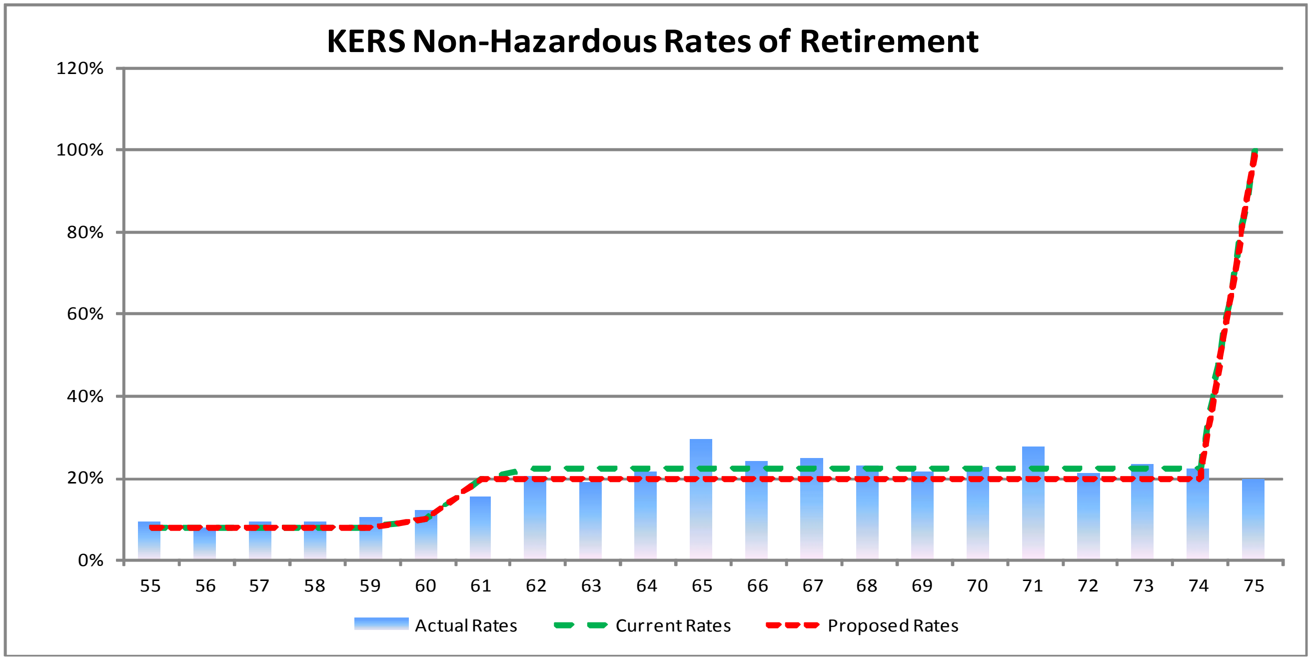
Demographic Assumptions



Demographic Assumptions

- Service Retirement
  - In general, there were fewer actual retirements than expected for the non-hazardous groups and more than expected for the hazardous groups.
  - We recommend adjustments in rates to more accurately reflect the experience at each retirement age.

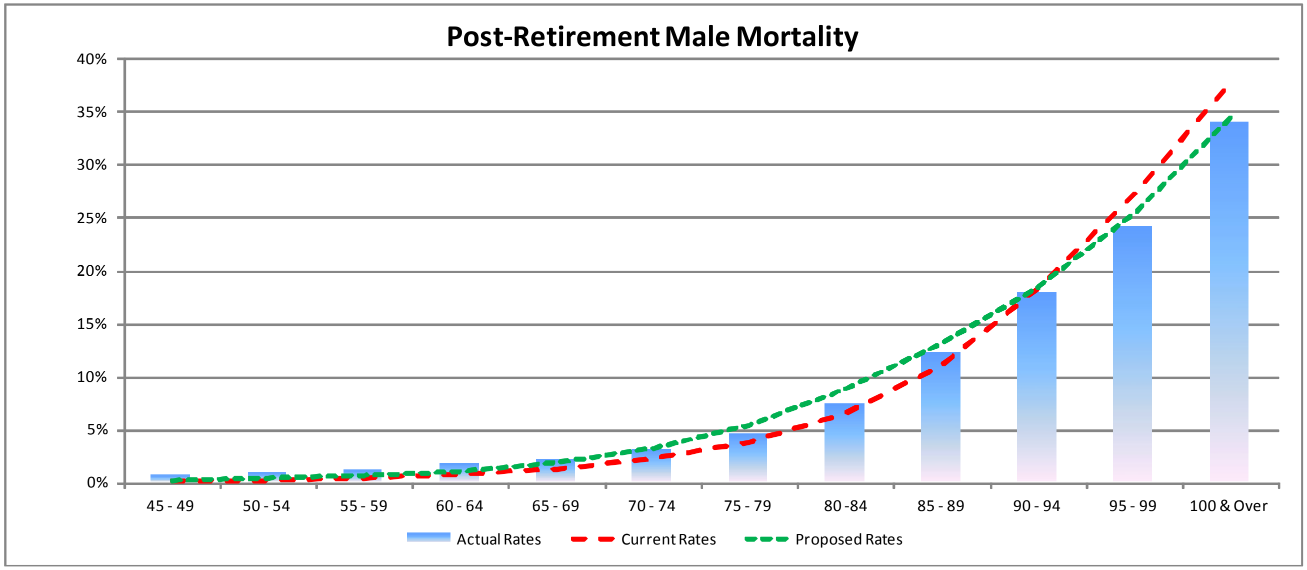
Demographic Assumptions

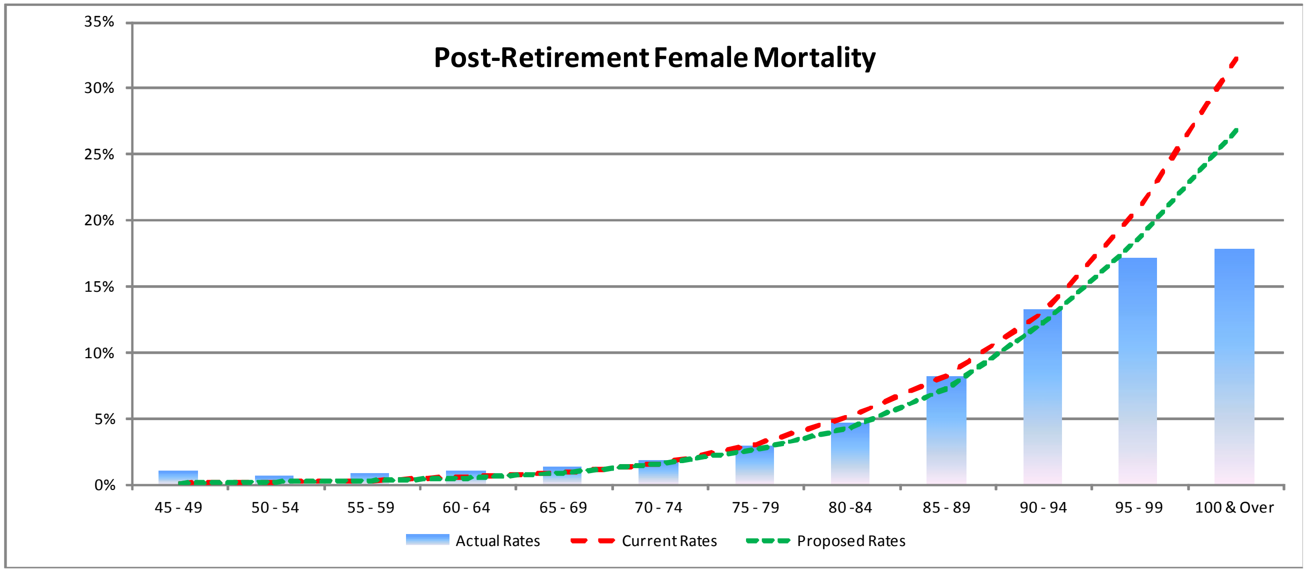


Demographic Assumptions

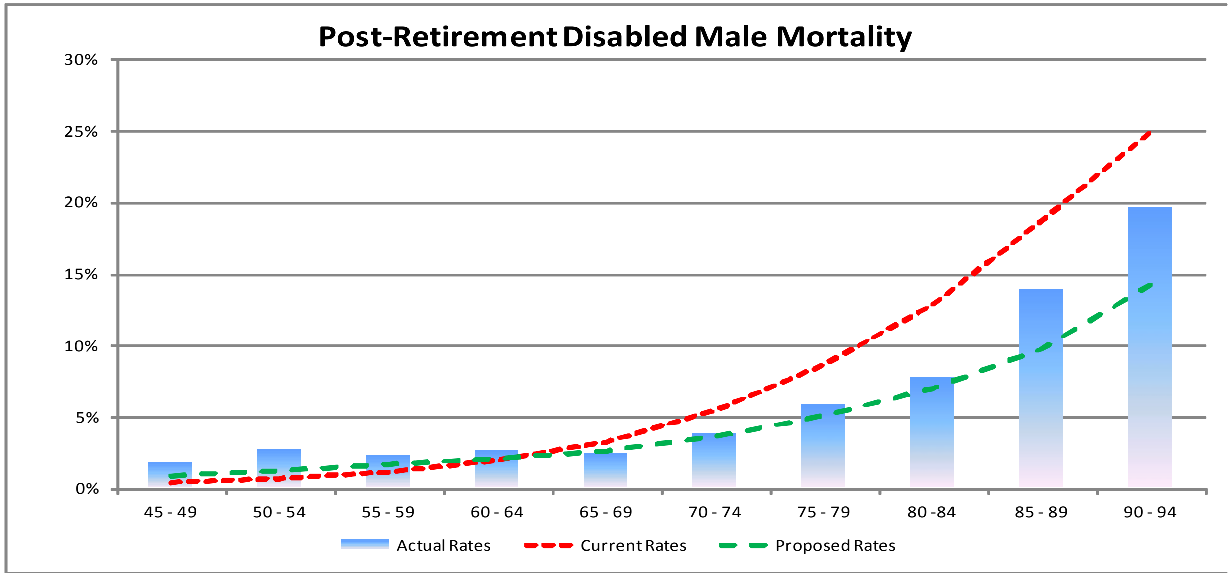
- Post-Retirement Mortality
  - Compared Actual versus Expected in Aggregate
  - Actual retiree deaths exceeded expected over the five year period.
  - Note that the experience is measured against the 1983 GAM table which is applied to retired members and beneficiaries as of June 30, 2006. The mortality table for all other members is the 1994 GAM.
  - Recommend change in healthy mortality to the RP-2000 Combined Mortality Table projected to 2013 using the BB projection scale, set back one year for females.
  - Recommend change in disabled mortality to the RP-2000 Combined Disability Mortality Table projected to 2013 using the BB projection scale, set back four years for males.

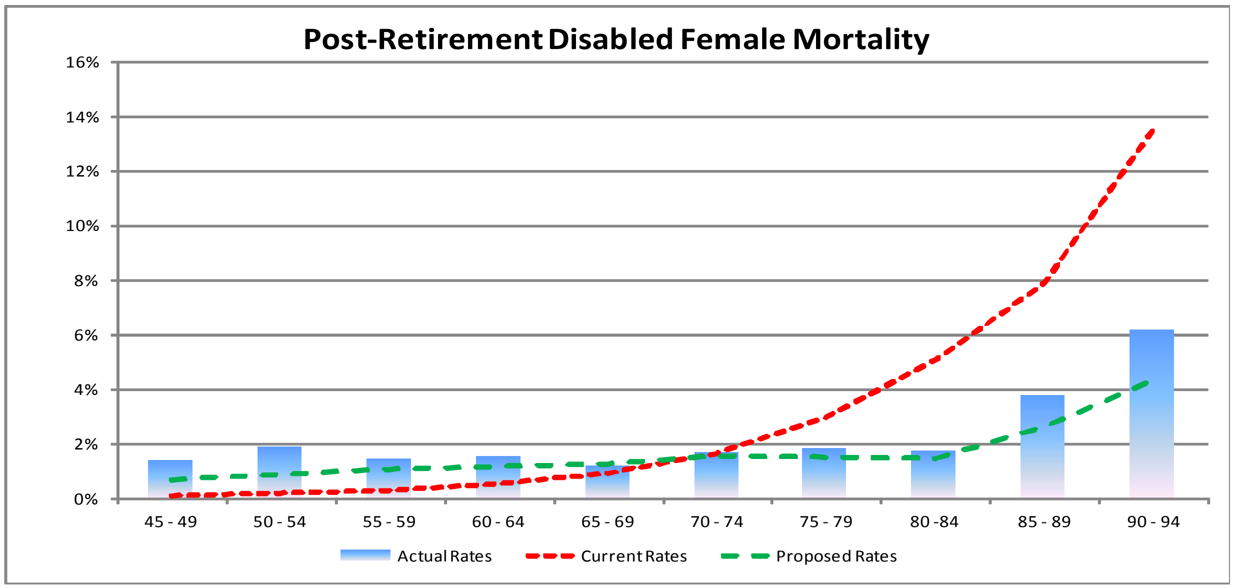
Demographic Assumptions





Demographic Assumptions





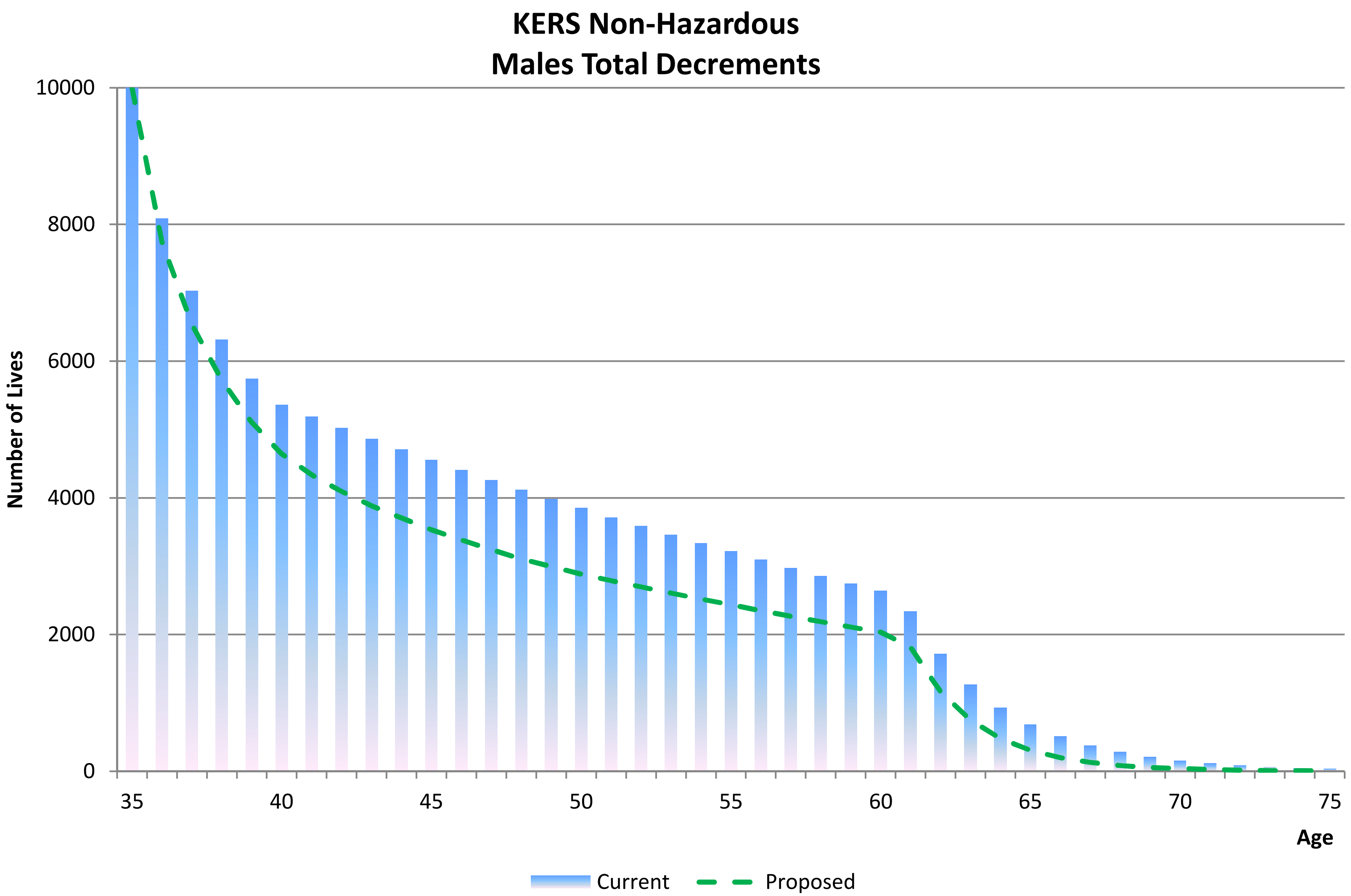
Demographic Assumptions

- Salary Scale
  - For all groups, the actual salary increases were less than expected for the investigation period.
  - However, the experience was influenced by unusual economic conditions.
  - As a result, no changes to the merit component of the salary scales are recommended at this time.
  - The decrease in real wage growth assumption (covered later) was reflected in the final salary scales.

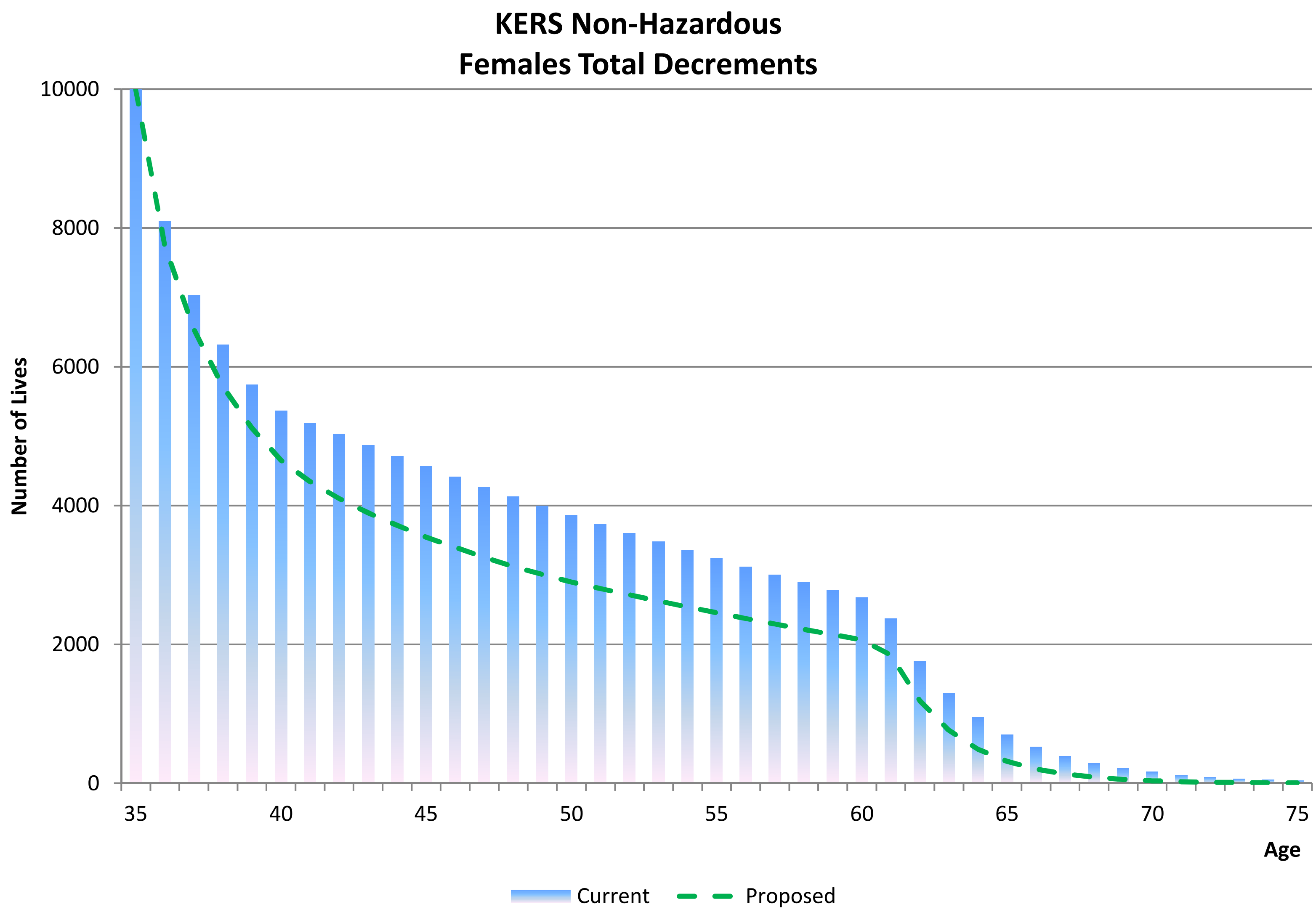
Demographic Assumptions

Years of Service	Salaries at End of Year ($1,000) KERS Non-Hazardous Members Actual	Expected	Ratio Actual/Expected
Less Than 1	220,811	217,487	1.015
1	507,093	520,958	0.973
2	484,743	498,032	0.973
3	482,475	498,747	0.967
4	444,984	459,748	0.968
5	423,318	440,350	0.961
6	391,379	403,277	0.970
7	388,915	402,451	0.966
8	377,814	391,740	0.964
9	387,872	400,573	0.968
10 +	3,734,383	3,866,063	0.966
TOTAL	7,843,787	8,099,426	0.970

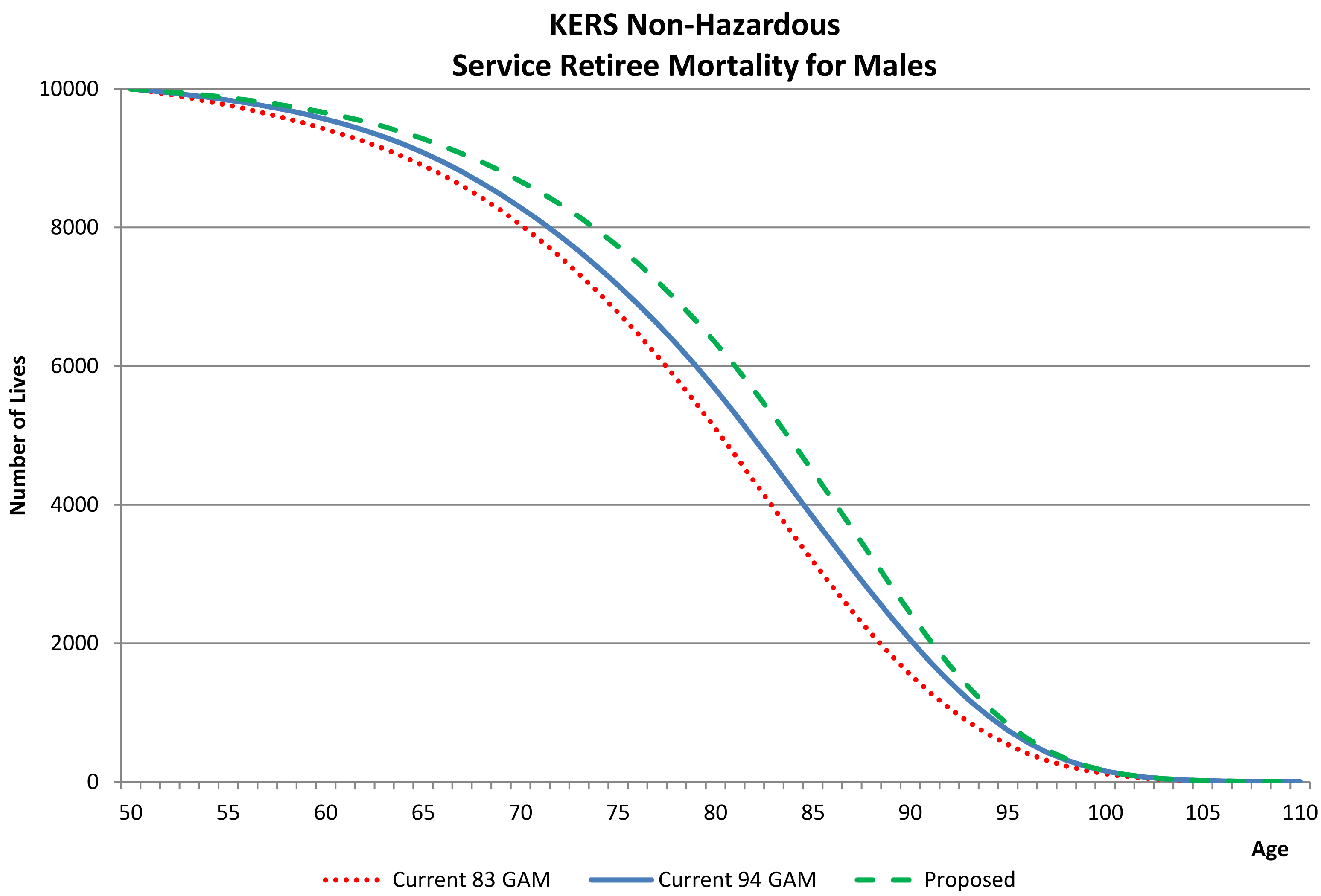
Demographic Assumptions



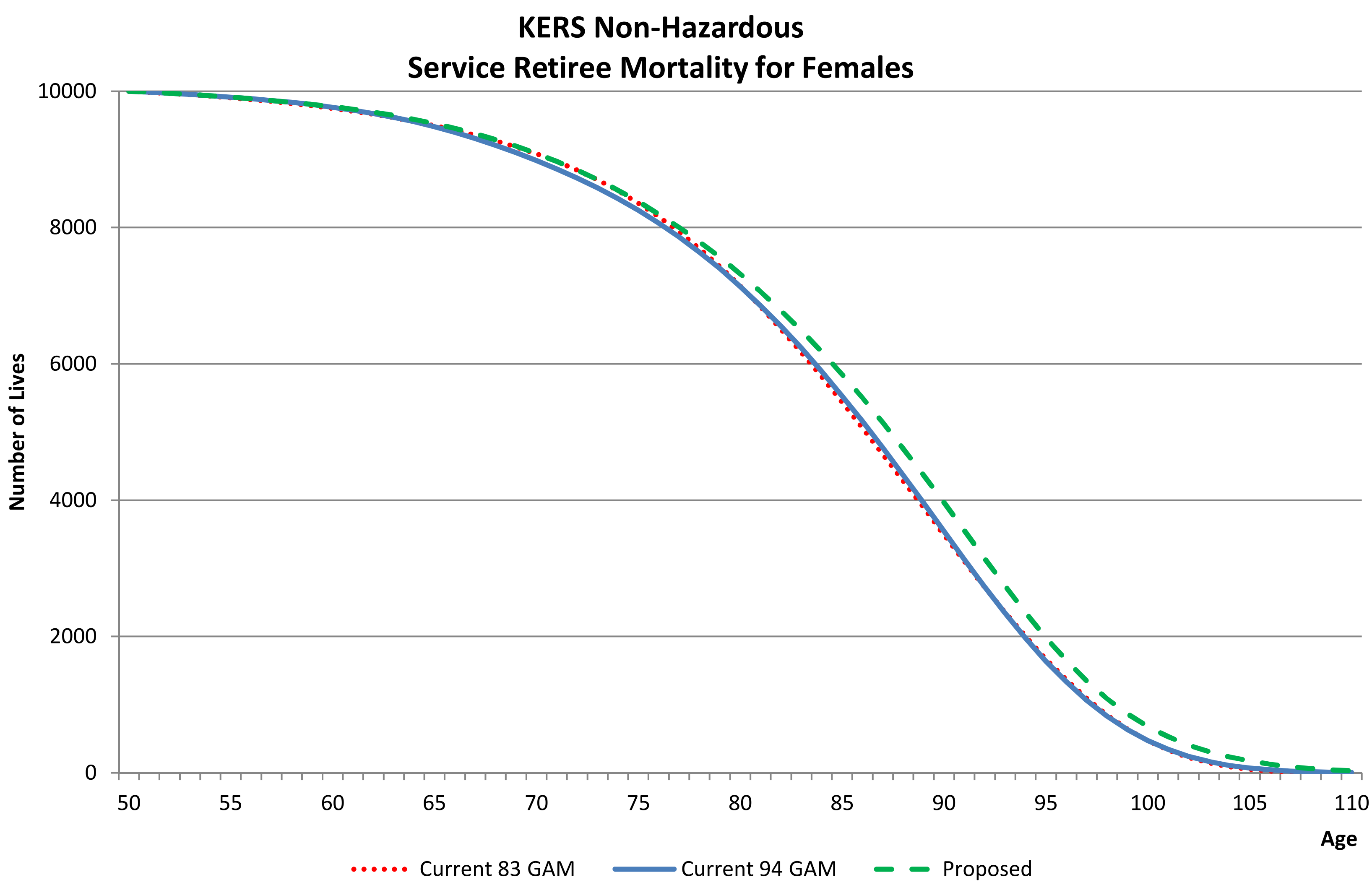
Demographic Assumptions



Demographic Assumptions



Demographic Assumptions



Retiree Healthcare Specific Assumptions

- The Actuarial Standards Board has issued Actuarial Standard of Practice (ASOP) No. 6, *"Measuring Retiree Group Benefit Obligations"*, which provides guidance to actuaries in selecting assumptions for measuring obligations of postretirement plans other than pensions.
- Types of assumptions:
  - Economic
  - Morbidity
  - Coverage
    - Choice of Coverage
    - Plan Participation
    - Spouse/Dependent Participation
    - Spouse/Dependent Age Differences

Retiree Healthcare Specific Assumptions

- Economic assumptions include those utilized for the pension funds plus health care trend rates.
- Currently review and set the trend rate annually.
- Recommend no change to this procedure.

- All other healthcare related assumptions were reviewed. The recommended changes are outlined in the following slides.

Retiree Healthcare Specific Assumptions

Tier 1: Service Retirement Members Participating Before July 1, 2003

KERS Non-Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	35%	30%	52%	45%	30%	90%	50%
10 – 14	67%	63%	53%	58%	62%	90%	75%
15 – 19	81%	78%	81%	79%	85%	90%	90%
20+	95%	92%	96%	94%	96%	90%	100%

KERS Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	24%	0%	47%	30%	13%	100%	50%
10 – 14	58%	69%	73%	46%	58%	100%	75%
15 – 19	71%	76%	68%	77%	73%	100%	90%
20+	97%	98%	97%	95%	97%	100%	100%

Retiree Healthcare Specific Assumptions

Tier 1: Service Retirement Members Participating Before July 1, 2003

CERS Non-Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	28%	27%	52%	26%	22%	85%	50%
10 – 14	51%	54%	54%	57%	54%	85%	75%
15 – 19	79%	83%	76%	79%	81%	85%	90%
20+	92%	94%	95%	94%	94%	85%	100%

CERS Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	20%	14%	67%	50%	0%	100%	50%
10 – 14	54%	50%	44%	65%	46%	100%	75%
15 – 19	73%	65%	77%	89%	82%	100%	90%
20+	94%	96%	97%	95%	97%	100%	100%

No changes recommended for SPRS from the current 100% participation rate

Retiree Healthcare Specific Assumptions

- No changes in participation rates for other service retirement tiers, disability or death-in-service recipients.
- Current assumption is 100% for all those groups. As experience emerges changes may be appropriate.

Retiree Healthcare Specific Assumption

Deferred Vested Member Health Care Participation Rates
Tier 1: Members Hired Before 7/1/2003

KERS Non-Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	31%	27%	28%	45%	41%	90%	50%

KERS Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	50%	43%	36%	42%	25%	100%	50%

Retiree Healthcare Specific Assumption

Deferred Vested Member Health Care Participation Rates
Tier 1: Members Hired Before 7/1/2003

CERS Non-Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	22%	27%	31%	38%	25%	85%	50%

CERS Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	15%	14%	33%	33%	35%	100%	50%

Again no changes recommended for SPRS or other tiers from the current 100% participation rate

Retiree Healthcare Specific Assumption

KRS Hazardous Divisions Spouse and Dependent Health Care Participation Rates

KERS Hazardous							
Percentage of Covered Retirees Electing Spouse Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	42%	42%	44%	44%	44%	100%	50%

CERS Hazardous							
Percentage of Covered Retirees Electing Spouse Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	66%	67%	67%	68%	67%	100%	75%

SPRS							
Percentage of Covered Retirees Electing Spouse Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	65%	71%	72%	73%	72%	100%	75%

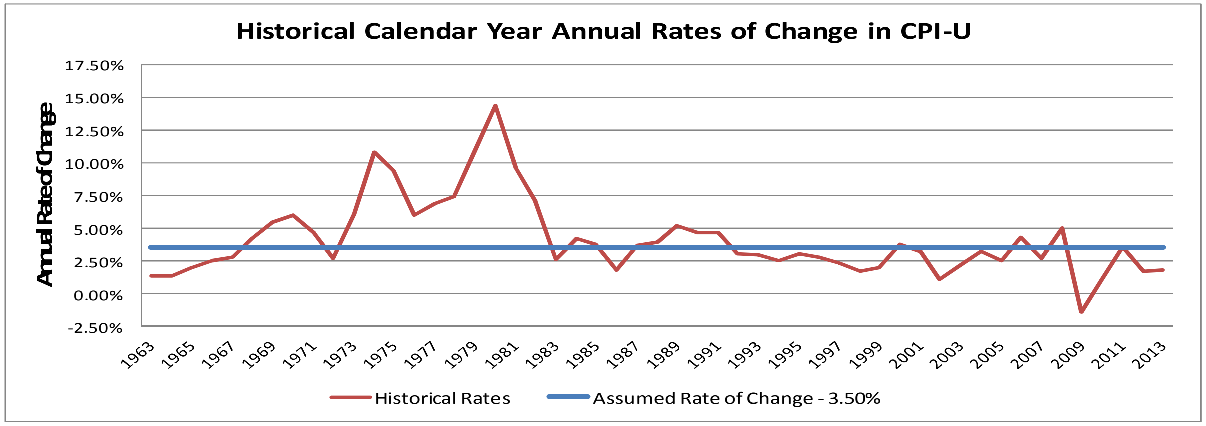
Economic Assumptions

- Assumptions reviewed
  - Price inflation
  - Investment return
  - Wage inflation
- Actuarial Standard of Practice (ASOP) No. 27, *"Selection of Economic Assumptions for Measuring Pension Obligations"* provides guidance to actuaries in selecting economic assumptions for measuring obligations under defined benefit plans.
- Recommendations

Item	Current	Proposed
Price Inflation	3.50%	3.25%
Real Rate of Return	4.25%	4.25%
Investment Return	7.75%	7.50%
Price Inflation	3.50%	3.25%
Real Wage Growth	1.00%	0.75%
Wage Inflation	4.50%	4.00%

Economic Assumptions
Price Inflation

- Current assumption: 3.50%
- Historical data: Annual CPI (U) Increases



- Recommendation:

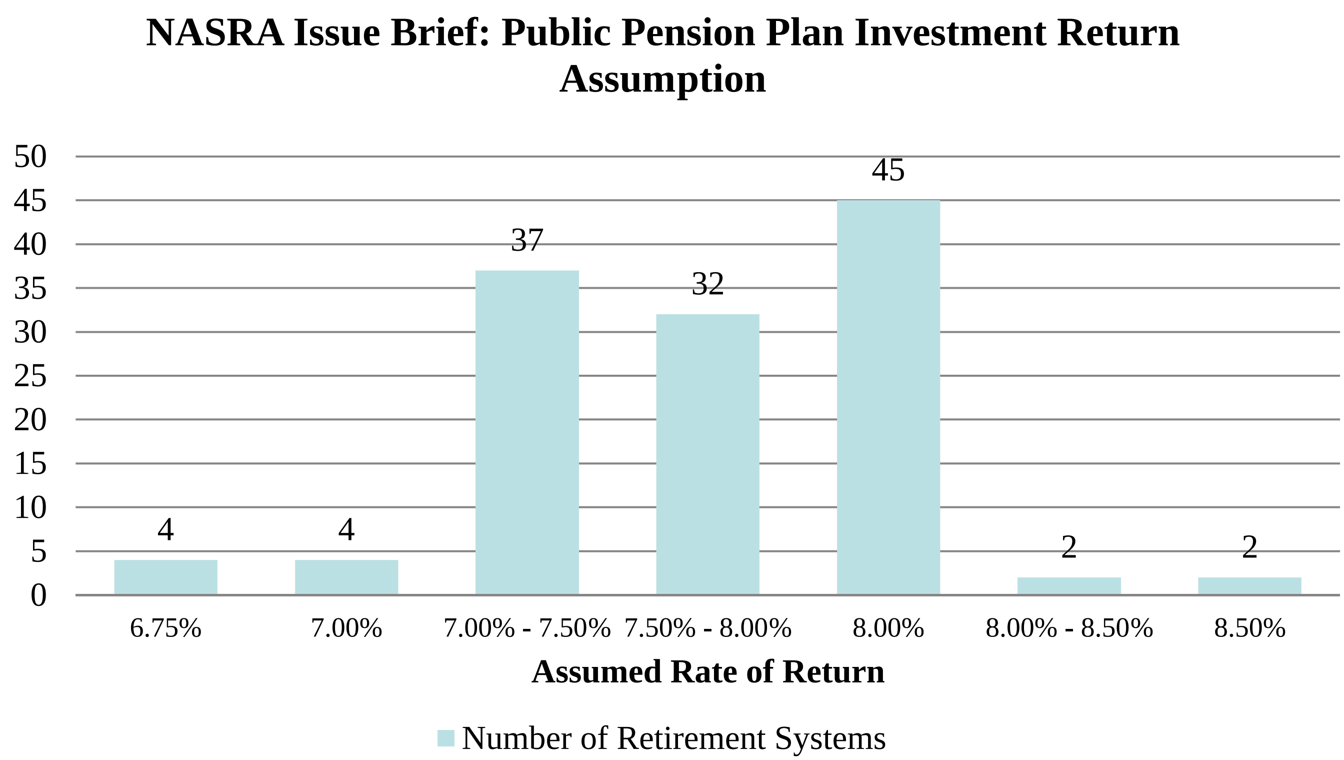
Price Inflation Assumption	
Current	3.50%
Reasonable Range	2.00% - 4.00%
Recommended	3.25%

Economic Assumptions
Investment Return

- Current Assumption
  - Price inflation 3.50%
  - Real rate of return 4.25%
  - Total return (net of investment and administrative expenses) 7.75%

Nominal Total Rate of Return – Pension Funds		
Year Ending 6/30	Actuarial Value	Market Value
2009	1.74%	(17.72)%
2010	1.37%	16.37%
2011	3.60%	19.13%
2012	1.11%	0.01%
2013	4.29%	11.10%
Average	2.41%	4.85%

Economic Assumptions
Investment Return



The average assumed rate of return among Public Retirement Systems is 7.72% according to the April 2014 NASRA Issue Brief: "Public Pension Plan Investment Return Assumptions"

Economic Assumptions
Investment Return

➢ Stochastic projection expected range of real rates of return (CERS)

Time Span In Years	Real Returns by Percentile				
	5th	25th	50th	75th	95th
1	-14.43%	-4.11%	3.79%	12.34%	25.88%
5	-4.79%	0.18%	3.79%	7.53%	13.15%
10	-2.36%	1.22%	3.79%	6.42%	10.32%
20	-0.59%	1.97%	3.79%	5.64%	8.37%
30	0.20%	2.30%	3.79%	5.30%	7.51%
50	0.99%	**2.63%**	3.79%	**4.96%**	6.66%

➢ Based on KRS' current capital market assumptions and policy target asset allocation.

Economic Assumptions
Investment Return

- Recommendation
  - ASOP No. 27 approach
  - Projection results – 50 years - CERS

Item	25th Percentile	50th Percentile	75th Percentile
Real Rate of Return	2.63%	3.79%	4.96%
Inflation	3.25%	3.25%	3.25%
Expenses	(0.00)%	(0.00)%	(0.00)%
Net Investment Return	5.88%	7.04%	8.21%

Economic Assumptions
Investment Return

- Normally would recommend 50th percentile results.
- However, there are mitigating issues:
  - Longer time horizon (10 years vs. System's lifetime)
  - Historical returns have been higher
  - Capital market assumptions do not include added return due to active management and other asset deployment strategies
  - Capital market assumptions are reflective of recent good experience. That, combined with the time horizon, causes them to be conservative compared to potential returns for longer periods.

Economic Assumptions
Investment Return

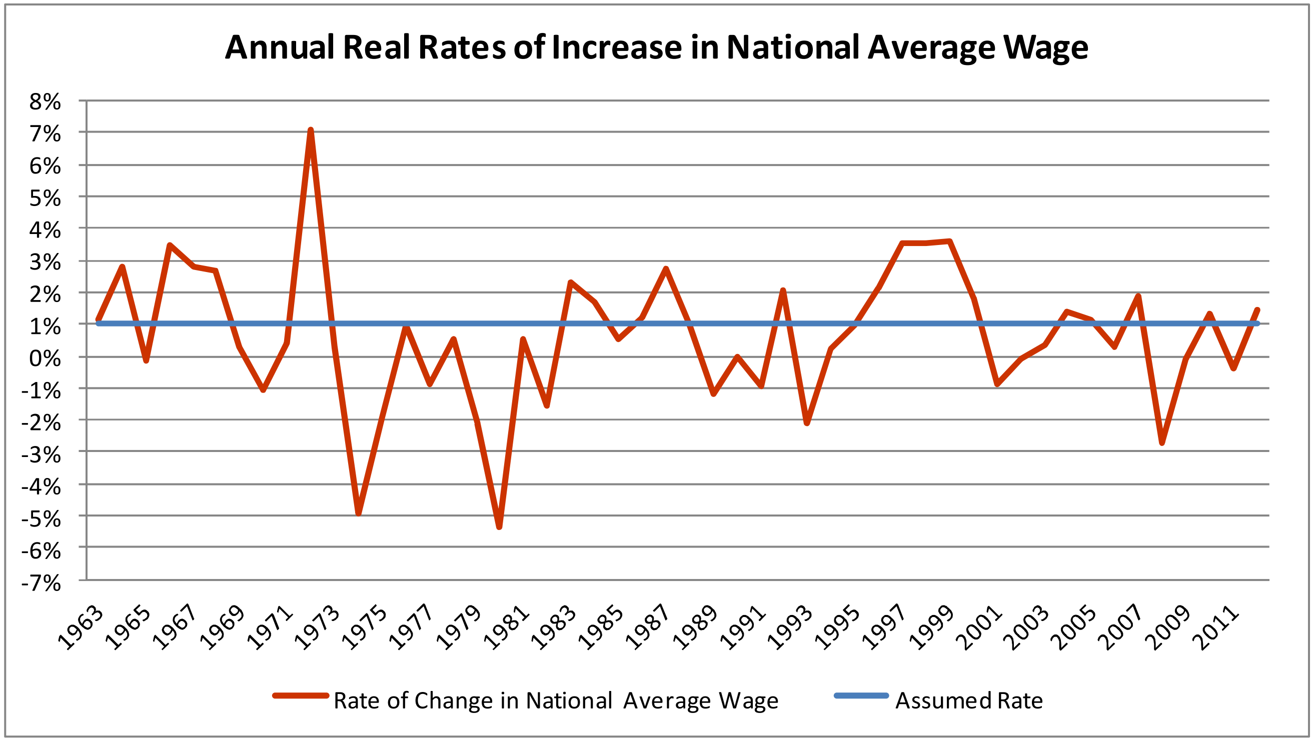
- Therefore recommendation is greater than the 50th percentile
  - KERS Non-Hazardous – 64th percentile
  - KERS Hazardous, CERS Non-Hazardous and KERS Hazardous – 61st percentile
  - SPRS – 61st percentile

Investment Return Assumption	
Current	7.75%
Reasonable Range (CERS)	5.88% - 8.21%
Recommended	7.50%

  - Further recommendation is to review the economic assumptions every biennium

Economic Assumptions
Wage Inflation

- Current assumption: 4.50%, which is 1.00% above price inflation
- Social Security Administration data



Economic Assumptions
Wage Inflation

- Historical Experience

Period	Wage Inflation	Price Inflation	Real Wage Growth
2002-2012	2.92%	2.46%	0.44%
1992-2012	3.35	2.49	0.83
1982-2012	3.79	2.91	0.85
1972-2012	4.67	4.36	0.30
1962-2012	4.78	4.14	0.62

Economic Assumptions
Wage Inflation

- Social Security 75 year projection of national wage growth assumption is 1.1% greater than price inflation.
- Recommendation is to be more consistent with historical results, particularly in periods of relatively high inflation.

Wage Inflation Assumption		
Current	4.50%	
	Reasonable Range	
Real Wage Growth	0.50%	1.50%
Inflation	3.25%	3.25%
Total	3.75%	4.75%
Recommended	4.00%	

Impact of Recommendations

Financial Impact on 06/30/2013 KERS Non-Hazardous Valuation

System	Before Change	After Change
KERS Non-Hazardous Pension:		
UAL	$8,750,479,307	$9,324,310,277
Funding Ratio	23.15%	22.04%
Employer Rate	30.84%	33.09%
KERS Non-Hazardous Insurance:		
UAL	$1,631,169,807	$1,801,450,791
Funding Ratio	23.37%	21.64%
Employer Rate	7.93%	8.27%
Total Employer Rate	38.77%	41.36%

Impact of Recommendations

Financial Impact on 06/30/2013 KERS Hazardous Valuation

System	Before Change	After Change
KERS Hazardous Pension:		
UAL	$278,323,786	$318,776,485
Funding Ratio	64.50%	61.33%
Employer Rate	16.37%	19.27%
KERS Hazardous Insurance:		
UAL	$14,743,272	$(6,845,174)
Funding Ratio	96.18%	101.88%
Employer Rate	9.97%	7.63%
Total Employer Rate	26.34%	26.90%

Impact of Recommendations

Financial Impact on 06/30/2013 CERS Non-Hazardous Valuation

System	Before Change	After Change
CERS Non-Hazardous Pension:		
UAL	$3,741,781,631	$4,163,362,131
Funding Ratio	60.10%	57.52%
Employer Rate	12.75%	13.69%
CERS Non-Hazardous Insurance:		
UAL	$815,649,903	$946,198,707
Funding Ratio	66.62%	63.25%
Employer Rate	5.35%	5.11%
Total Employer Rate	18.10%	18.80%

Impact of Recommendations

Financial Impact on 06/30/2013 CERS Hazardous Valuation

System	Before Change	After Change
CERS Hazardous Pension:		
UAL	$1,322,514,183	$1,432,756,145
Funding Ratio	57.67%	55.70%
Employer Rate	20.73%	19.63%
CERS Hazardous Insurance:		
UAL	$544,558,426	$519,882,134
Funding Ratio	62.11%	63.20%
Employer Rate	14.97%	12.40%
Total Employer Rate	35.70%	32.03%

Impact of Recommendations

Financial Impact on 06/30/2013 SPRS Valuation

System	Before Change	After Change
SPRS Pension:		
UAL	$409,780,326	$444,015,689
Funding Ratio	37.11%	35.26%
Employer Rate	53.90%	59.91%
SPRS Insurance:		
UAL	$86,005,683	$95,606,709
Funding Ratio	61.32%	58.78%
Employer Rate	21.86%	23.29%
Total Employer Rate	75.76%	83.20%

Cavanaugh Macdonald
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KRS
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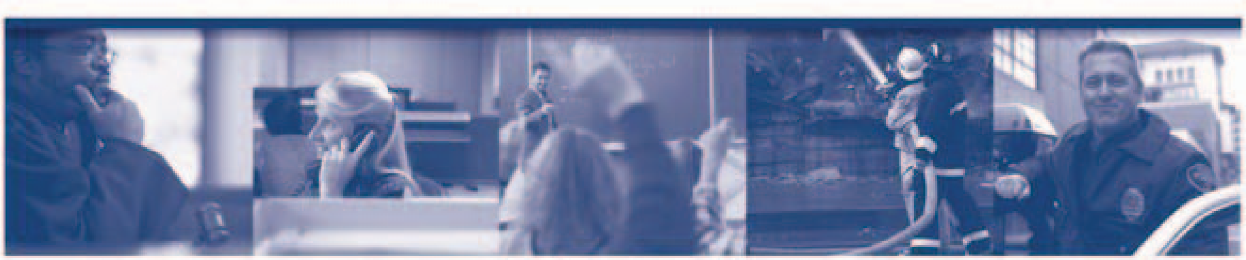
Kentucky Retirement Systems

Experience Study

For the Five-Year Period

Ending June 30, 2013



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Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

April 30, 2014

Board of Trustees
Kentucky Retirement Systems
1260 Louisville Road
Frankfurt, KY 40601

Dear Members of the Board:

We are pleased to submit the results of a study of the economic and demographic experience for the Kentucky Employees Retirement System, the County Employees Retirement System and the State Police Retirement System. The purpose of this investigation is to assess the reasonability of the actuarial assumptions for each system. This investigation covers the five-year period from July 1, 2008 to June 30, 2013. As a result of the investigation, it is recommended that revised assumptions be adopted by the Board for future use.

The experience studies for each system include all active members, retired members and beneficiaries of deceased members. The mortality experience was studied separately for males and females. Incidences of withdrawal, disability, retirement and compensation increases were investigated without regard to gender.

This report shows comparisons between the actual and expected cases of separation from active service, actual and expected number of deaths, and actual and expected salary increases. Tables and graphs are used to show the actual decrement rates, the expected decrement rates and, where applicable, the proposed decrement rates.

The newly proposed rates of separation and mortality for all five systems are shown in Appendix D of this report. In the actuary's judgment, the recommended rates are suitable for use until further experience indicates that modifications are needed.

Actuarial Assumptions are used to measure and budget future costs. Changing assumptions will not change the actual cost of future benefits.

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The experience study was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems. The undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

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Summary of Results

The following summarizes the findings and recommendations with regard to the assumptions utilized by the Kentucky Employees Retirment System (KERS), the County Employees Retirement System (CERS) and the State Police Retirement System (SPRS). Explanations for the recommendations are found in the sections that follow.

Recommended Economic Assumption Changes

The table below lists the three economic assumptions used in the actuarial valuation and their current and proposed rates. We recommend lowering the assumed rate of price inflation, the assumed rate of return on assets and the assumed rate of wage inflation for all five Systems.

Assumption	Current	Proposed
Price Inflation	3.50%	3.25%
Wage Inflation	4.50%	4.00%
Investment Return		
KERS Non-Hazardous	7.75%	7.50%
KERS Hazardous	7.75%	7.50%
CERS Non-Hazardous	7.75%	7.50%
CERS Hazardous	7.75%	7.50%
SPRS	7.75%	7.50%

Recommended Demographic Assumption Changes

The table below lists the demographic assumptions that we recommend be changed based on the experience during the last five years.

Assumption Changes
KERS Non-Hazardous
Increase rates of withdrawal
Update rates of pre-retirement mortality
Decrease rates of disability retirements
Adjust rates of retirement
Update post-retirement mortality
Update Other Post-Employment Benefit assumptions
KERS Hazardous
Increase rates of withdrawal
Update rates of pre-retirement mortality
Decrease rates of disability retirements
Adjust rates of retirement
Update post-retirement mortality
Update Other Post-Employment Benefit assumptions
CERS Non-Hazardous
Increase rates of withdrawal
Update rates of pre-retirement mortality
Decrease rates of disability retirements
Adjust rates of retirement
Update post-retirement mortality
Update Other Post-Employment Benefit assumptions
CERS Hazardous
Increase rates of withdrawal
Update rates of pre-retirement mortality
Adjust rates of retirement
Update post-retirement mortality
Update Other Post-Employment Benefit assumptions
SPRS
Increase rates of withdrawal
Update rates of pre-retirement mortality
Adjust rates of retirement
Update post-retirement mortality
Update Other Post-Employment Benefit assumptions

Recommended Method Changes

In keeping with the real wage growth change, we recommend that the payroll growth assumption for amortization as a level percent of pay be reduced from 4.50% to 4.00%.

Financial Impact

The following tables highlight the impact of the recommended changes on the unfunded accrued liabilities (UAL), funded statuses and employer contribution rates for the five systems for both the pension and the insurance funds.

	Pension		Insurance	
System	Before Change	After Change	Before Change	After Change
KERS Non-Hazardous				
UAL	$8,750,479,307	$9,152,135,582	$1,631,169,807	$1,801,450,791
Funded Status	23.15%	22.36%	23.37%	21.64%
Employer Rate	30.84%	32.54%	7.93%	8.27%
KERS Hazardous				
UAL	$278,323,786	$318,776,485	$14,743,272	$(6,845,174)
Funded Status	64.50%	61.33%	96.18%	101.88%
Employer Rate	16.37%	19.27%	9.97%	7.63%
CERS Non-Hazardous				
UAL	$3,741,781,631	$4,459,335,404	$815,649,903	$946,198,707
Funded Status	60.10%	55.83%	66.62%	63.25%
Employer Rate	12.75%	15.34%	5.35%	5.11%
CERS Hazardous				
UAL	$1,322,514,183	$1,432,756,145	$544,558,426	$519,882,134
Funded Status	57.67%	55.70%	62.11%	63.20%
Employer Rate	20.73%	19.63%	14.97%	12.40%
SPRS				
UAL	$409,780,326	$444,015,689	$86,005,683	$95,606,709
Funded Status	37.11%	35.26%	61.32%	58.78%
Employer Rate	53.90%	59.91%	21.86%	23.29%

ECONOMIC ASSUMPTIONS

There are three economic assumptions used in performing the actuarial valuation for the KERS, CERS and SPRS. The assumptions are:

- Price Inflation
- Investment Return
- Wage Inflation

The Actuarial Standards Board has issued Actuarial Standard of Practice (ASOP) No. 27, *"Selection of Economic Assumptions for Measuring Pension Obligations"*, which provides guidance to actuaries in selecting economic assumptions for measuring obligations under defined benefit plans. As noted in ASOP No. 27, because no one knows what the future holds, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes based on a mixture of past experience and future expectations. These estimates therefore are best stated as a range utilizing the actuary's professional judgment. In setting the range and the single point within that range to use, the actuary should consider a number of factors, including the purpose and nature of the measurement, and appropriate recent and long-term historical economic data. However, the standard explicitly advises the actuary not to give undue weight to recent experience.

Each economic assumption should individually satisfy this standard. Furthermore, with respect to any particular valuation, each economic assumption should be consistent with every other economic assumption over the measurement period.

In our opinion, the economic assumptions recommended in this report have been developed in accordance with ASOP No. 27. The following table shows our recommendations followed by explanations of each assumption.

Item	Current	Proposed
Price Inflation	3.50%	3.25%
Real Rate of Return	4.25	4.25%
Investment Return	7.75%	7.50%
Price Inflation	3.50%	3.25%
Real Wage Growth	1.00	0.75
Wage Inflation	4.50%	4.00%

PRICE INFLATION

Background: As seen in the table on the previous page, assumed price inflation is used as a component for both the investment return assumption and the wage inflation assumption. The latter two assumptions will be discussed in detail in the following sections.

It is important that the price inflation assumption be consistently applied throughout the economic assumptions utilized in an actuarial valuation. This is called for in ASOP No. 27 and is also required to meet the parameters for determining pension liabilities and expense under Governmental Accounting Standards Board (GASB).

The current price inflation assumption is 3.50% per year.

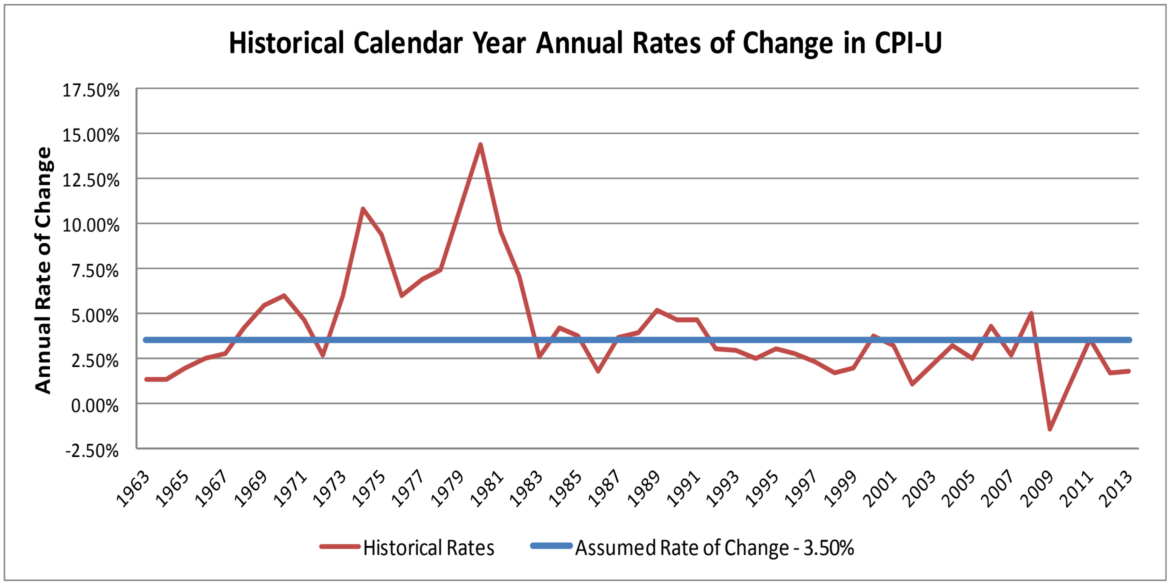
Past Experience: The Consumer Price Index, US City Average, All Urban Consumers, CPI (U), has been used as the basis for reviewing historical levels of price inflation. The level of that index in June of each of the last 50 years is provided in Appendix A.

In analyzing this data, average rates of inflation have been determined by measuring the compound growth rate of the CPI (U) over various time periods. The results are as follows:

Period	Average Annual Rate of Inflation
2003 – 2013	2.43%
1993 – 2013	2.43%
1983 – 2013	2.88%
1973 – 2013	4.25%
1963 – 2013	4.15%
1953 – 2013	3.67%
1926 - 2013	2.99%

Over shorter historic periods, the average annual rate of increase in the CPI-U has been below 3.00%. The years of high inflation occurring from 1973 to 1982 has a significant impact on the averages over periods which include these rates. We should add that since 1926, the average annual rate of inflation was 2.99%.

The graph below shows the annual increases in the CPI (U) over a 50-year period.



Additional information to consider when determining the reasonable range is obtained from measuring the spread on inflation protected treasury bills (TIPS) and from the prevailing economic forecasts. The spread between the nominal yield on treasury securities and the inflation indexed nominal yield on TIPS of the same maturity is referred to as the "breakeven rate of inflation" and represents the bond market's expectation of inflation over the period to maturity. The table below provides the calculation of the breakeven rate of inflation as of December 31, 2013 over various periods.

Years to Maturity	Bond Nominal Yield	TIPS Nominal Yield	Breakeven Rate of Inflation
10	3.04%	0.80%	2.24%
20	3.72%	1.36%	2.36%
30	3.96%	1.64%	2.32%

The bond market's expectation for the rate of inflation is lower than historical average annual rates. Additionally, based upon information provided from the "Survey of Professional Forecasters" published by the Philadelphia Federal Reserve Bank, the median annual rate of inflation for the ten years beginning January 1, 2013 is 2.30%.

Recommendation: It is difficult to accurately predict inflation. Current economic forecasts and the bond market suggest lower inflation over the next ten to twenty years when compared to the historical averages, which is a shorter time period than appropriate for our purposes. In the 2013 OASDI Trustees Report, the Chief Actuary for Social Security bases the 75-year cost projections on an intermediate inflation assumption of 2.8% with a range of 1.8% - 3.8%. We concur in general with a range of 2.0% - 4.0%, and recommend reducing the assumed rate of inflation from 3.50% to 3.25% per year rate still recognizing the likely inflation pressures built into the economy at the current time.

Price Inflation Assumption	
Current	3.50%
Reasonable Range	2.00 - 4.00%
Recommended	3.25%

INVESTMENT RETURN

Background: The assumed investment return is one of the most significant assumptions in the annual actuarial valuation process as it is used to discount the expected benefit payments for all active, inactive and retired members of the System. Minor changes in this assumption can have a major impact on valuation results. The investment return assumption should reflect the asset allocation target for the funds set by the Board.

The current assumption is 7.75%, consisting of a price inflation assumption of 3.50% and a real rate of return assumption of 4.25%. The return is net of all investment expenses.

Past Experience: The actuarial value of assets of the System are developed using a widely accepted asset-smoothing methodology that fully recognizes investment gains and losses over a five-year period. The recent experience for the retirement funds over the last eight years is shown in the table below.

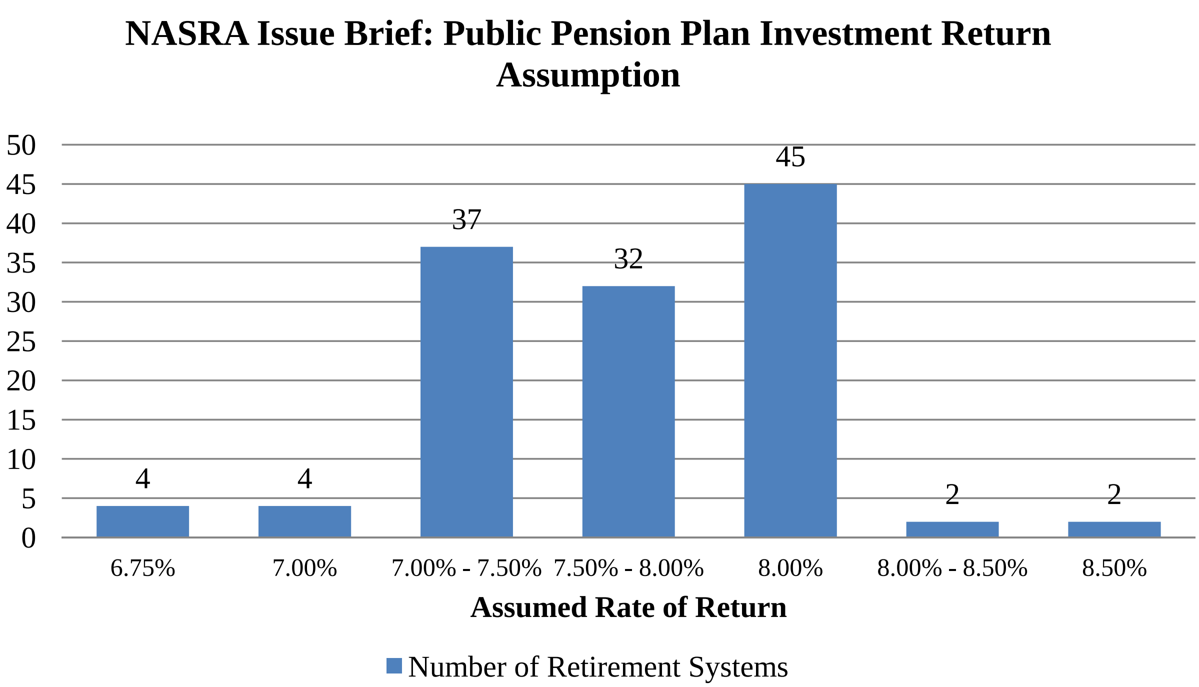
Year Ending 6/30	Insurance Funds		Pension Funds	
	Actuarial Value Rate of Return	Market Value Rate of Return	Actuarial Value Rate of Return	Market Value Rate of Return
2006	7.83%	11.91%	4.97%	9.70%
2007	10.33	17.79	9.01	15.29
2008	7.95	(7.82)	8.02	(4.09)
2009	0.36	(22.95)	1.74	(17.72)
2010	0.28	15.12	1.37	16.37
2011	3.46	22.64	3.60	19.13
2012	1.01	(3.40)	1.11	0.01
2013	4.50	10.04	4.29	11.10
Average	**4.40%**	**4.34%**	**4.23%**	**5.52%**

Because of the significant variability in past year-to-year results and the inter-play of inflation on those results in the short term, we prefer to base our investment return assumption on the capital market assumptions utilized by the Board in setting investment policy and the asset allocation established by the Board as a result of that policy. This approach is referred to as the building block method in ASOP No. 27.

Historical Analysis: The historical 50-year real rate of return of the S&P 500 has averaged 5.60%, and the 50-year real rate of return of intermediate-term government bonds as provided by *Ibbotson SBBI 2014 Classic Yearbook* has averaged 2.81%. By weighting these rates by common allocation of large retirement funds (30%/70% to 70%/30%) we construct the reasonable range for real rates of return to be from 3.98% to 5.11%. The following table shows various annualized rates of return based on different time periods and different allocations between equities and bonds.

Time Span In Years	Real Returns by Portfolio Allocation Equities vs. Bonds			
	30%/70%	35%/65%	65%/35%	70%/30%
10	3.41%	3.61%	4.53%	4.64%
20	4.59	4.82	5.97	6.12
30	5.89	6.11	7.21	7.36
40	4.67	4.86	5.85	5.98
50	**3.98**	4.14	4.99	**5.11**

Peer Analysis: Review of the *NASRA Issue Brief: Public Pension Plan Investment Return Assumptions* update as of December 2013, 8.00% is the predominant assumption for public sector pension systems while the median is 7.72%.



Analysis: The current capital market assumptions and asset allocations are shown in Appendix B. Using statistical distribution properties based upon capital market assumptions utilized by the Board, provided by RVKuhns in setting the System's asset allocation targets, provides an expected range of real rates of return over various time horizons.

It is important to note that capital market assumptions can be quite volatile from year to year as they tend to forecast shorter time horizons than typically required by the public plan actuarial community when looking at the long-term time horizon of a public pension system. For example the expected real arithmetic return for KERS Non-Hazardous Pension Fund utilizing the 2010 asset allocation decreases from 5.43% to 4.93% and further to 4.57% based on the 2010, 2012, and 2014 capital market assumptions, respectively, provided by the Board's investment consultant. The following tables provide a summary of results of our analysis of the current capital market assumptions provided by RVKuhns.

KERS Non-Hazardous

Time Span In Years	Real Returns by Percentile				
	5th	25th	50th	75th	95th
1	-13.97%	-3.98%	3.65%	11.88%	24.88%
5	-4.64%	0.17%	3.65%	7.25%	12.66%
10	-2.28%	1.17%	3.65%	6.18%	9.94%
20	-0.58%	1.89%	3.65%	5.43%	8.06%
30	0.18%	2.21%	3.65%	5.10%	7.23%
50	0.95%	**2.53%**	3.65%	**4.77%**	6.42%

KERS Hazardous, CERS Non Hazardous and CERS Hazardous

Time Span In Years	Real Returns by Percentile				
	5^{th}	25^{th}	50^{th}	75^{th}	95^{th}
1	-14.43%	-4.11%	3.79%	12.34%	25.88%
5	-4.79%	0.18%	3.79%	7.53%	13.15%
10	-2.36%	1.22%	3.79%	6.42%	10.32%
20	-0.59%	1.97%	3.79%	5.64%	8.37%
30	0.20%	2.30%	3.79%	5.30%	7.51%
50	0.99%	**2.63%**	3.79%	**4.96%**	6.66%

SPRS

Time Span In Years	Real Returns by Percentile				
	5^{th}	25^{th}	50^{th}	75^{th}	95^{th}
1	-14.44%	-4.12%	3.77%	12.32%	25.86%
5	-4.81%	0.16%	3.77%	7.51%	13.13%
10	-2.37%	1.21%	3.77%	6.40%	10.30%
20	-0.61%	1.95%	3.77%	5.62%	8.35%
30	0.18%	2.28%	3.77%	5.28%	6.99%
50	0.98%	**2.62%**	3.77%	**4.94%**	6.64%

The charts above and on the previous page show the percentile rankings for expected returns for the various funds. For example, in the KERS Non-Hazardous fund 20-year time span, 5% of the resulting real rates of return are expected to be below -0.58% and 95% expected to be above that. As the time span increases, the results begin to merge. Over a 50-year time span, the result indicate there is a 25% chance that real return will be below 2.53% and a 25% chance they will be above 4.77%. In other words there is a 50% chance the real returns will be between 2.53% and 4.77%. The results vary from fund to fund due to slightly different asset allocation targets.

Administrative and Investment Expenses ($ millions): Administrative expenses are directly reflected as a separate component in the calculation of the contribution rate. However, the investment return is assumed to be net of all investment-related expenses. The following table shows the ratio of expenses to Plan assets over the last eight years. The expense ratio is calculated as the total expense divided by the ending asset balance at fair market value.

	Market Value Assets	Investment Expense	Expense Ratio
2009	$11,938	$11.9	0.10%
2010	$12,969	$30.1	0.23%
2011	$14,776	$41.8	0.28%
2012	$13,878	$26.7	0.19%
2013	$14,675	$31.5	0.21%

Over the five-year period the expense ratio averaged approximately 0.20%. This assumption does not have a direct impact on the actuarial valuation results, but it does provide a measure of gross return on investments that will be needed to meet the actuarial assumption used for the valuation. For example, if the KERS non-hazardous pension fund investment return assumption is set at 7.00%, then the Fund would need to earn a gross return of 7.20% in order to meet the 7.00% for funding purposes. The capital market assumptions provided by RVKuhns are net of investment expenses; therefore a separate investment expense assumption is not necessary.

Recommendation: Using the building block approach of ASOP No. 27 and the projection results outlined above, we recommend a range for the investment return assumption of the 25th to 75th percentile real returns over the 50-year time span plus the recommended inflation assumption less the recommended expense ratio assumption. The tables on the following pages detail the ranges for the funds.

KERS Non-Hazardous

Item	25th Percentile	50th Percentile	75th Percentile
Real Rate of Return	2.53%	3.65%	4.77%
Inflation	3.25	3.25	3.25
Expenses*	0.00	0.00	0.00
Net Investment Return	5.78%	6.90%	8.02%

* *The capital market assumptions used to develop the reasonable range for the real rate of return are net of investment expenses. Therefore a separate assumption for investment expenses is not necessary.*

The current assumed rate of return of 7.75% is in line with its peer group of other public retirement systems, however, the 50th percentile net return based on the analysis utilizing the capital market assumptions provided by RVKuhns is 6.90% for the above referenced fund.

Historically, a portfolio of assets that consisted of 65% S&P 500 and 35% intermediate-term government bonds yielded a compound average real rate of return on of 4.99% over the last 50 years. When combined with the inflation assumption of 3.25% that would yield an assumed rate of return of 8.24% on a historical basis.

The capital market assumptions provided by RVKuhns are based on a shorter time horizon relative to the time horizon required by actuaries. The capital market assumptions reflect the current economic environment that has outperformed current expectations. Due to the cyclical nature of the economy it is expected that the financial markets cannot continue at the current pace, therefore expectations are muted in the short run which has heavily biased the capital market assumptions. The actuary does not put undo weight on recent experience when setting the long-term assumed rate of return. In addition, the capital market assumptions do not reflect excess return that is derived through active management and other asset deployment strategies.

Our recommendation taking into account historical analysis, peer group analysis and the capital market assumption analysis is 7.50%. For the KERS Non-Hazardous System this represents the 64th percentile which is well within the reasonable range developed above.

KERS Hazardous, CERS Non-Hazardous and CERS Hazardous

Item	25th Percentile	50th Percentile	75th Percentile
Real Rate of Return	2.63%	3.79%	4.96%
Inflation	3.25	3.25	3.25
Expenses*	0.00	0.00	0.00
Net Investment Return	5.88%	7.04%	8.21%

* *The capital market assumptions used to develop the reasonable range for the real rate of return are net of investment expenses. Therefore a separate assumption for investment expenses is not necessary.*

The current assumed rate of return of 7.75% is in line with its peer group of other public retirement systems, however, the 50th percentile net return based on the analysis utilizing the capital market assumptions provided by RVKuhns is 7.04% for the above referenced fund.

Historically, a portfolio of assets that consisted of 65% S&P 500 and 35% intermediate-term government bonds yielded a compound average real rate of return on of 4.99% over the last 50 years. When combined with the inflation assumption of 3.25% that would yield an assumed rate of return of 8.24% on a historical basis.

The capital market assumptions provided by RVKuhns are based on a shorter time horizon relative to the time horizon required by actuaries. The capital market assumptions reflect the current economic environment that has outperformed current expectations. Due to the cyclical nature of the economy it is expected that the financial markets cannot continue at the current pace, therefore expectations are muted in the short run which has heavily biased the capital market assumptions. The actuary does not put undo weight on recent experience when setting the long-term assumed rate of return. In addition, the capital market assumptions do not reflect excess return that is derived through active management and other asset deployment strategies.

Our recommendation taking into account historical analysis, peer group analysis and the capital market assumption analysis is 7.50%. For the KERS Hazardous System and both CERS systems this represents the 61st percentile which is well within the reasonable range developed above.

SPRS Pension

Item	25th Percentile	50th Percentile	75th Percentile
Real Rate of Return	2.62%	3.77%	4.94%
Inflation	3.25	3.25	3.25
Expenses*	0.00	0.00	0.00
Net Investment Return	5.87%	7.02%	8.19%

* *The capital market assumptions used to develop the reasonable range for the real rate of return are net of investment expenses. Therefore a separate assumption for investment expenses is not necessary.*

The current assumed rate of return of 7.75% is in line with its peer group of other public retirement systems, however, the 50th percentile net return based on the analysis utilizing the capital market assumptions provided by RVKuhns is 7.02% for the above referenced fund.

Historically, a portfolio of assets that consisted of 65% S&P 500 and 35% intermediate-term government bonds yielded a compound average real rate of return on of 4.99% over the last 50 years. When combined with the inflation assumption of 3.25% that would yield an assumed rate of return of 8.24% on a historical basis.

The capital market assumptions provided by RVKuhns are based on a shorter time horizon relative to the time horizon required by actuaries. The capital market assumptions reflect the current economic environment that has outperformed current expectations. Due to the cyclical nature of the economy it is expected that the financial markets cannot continue at the current pace, therefore expectations are muted in the short run which has heavily biased the capital market assumptions. The actuary does not put undo weight on recent experience when setting the long-term assumed rate of return. In addition, the capital market assumptions do not reflect excess return that is derived through active management and other asset deployment strategies.

Our recommendation taking into account historical analysis, peer group analysis and the capital market assumption analysis is 7.50%. For the SPRS System this represents the 61st percentile which is well within the reasonable range developed above.

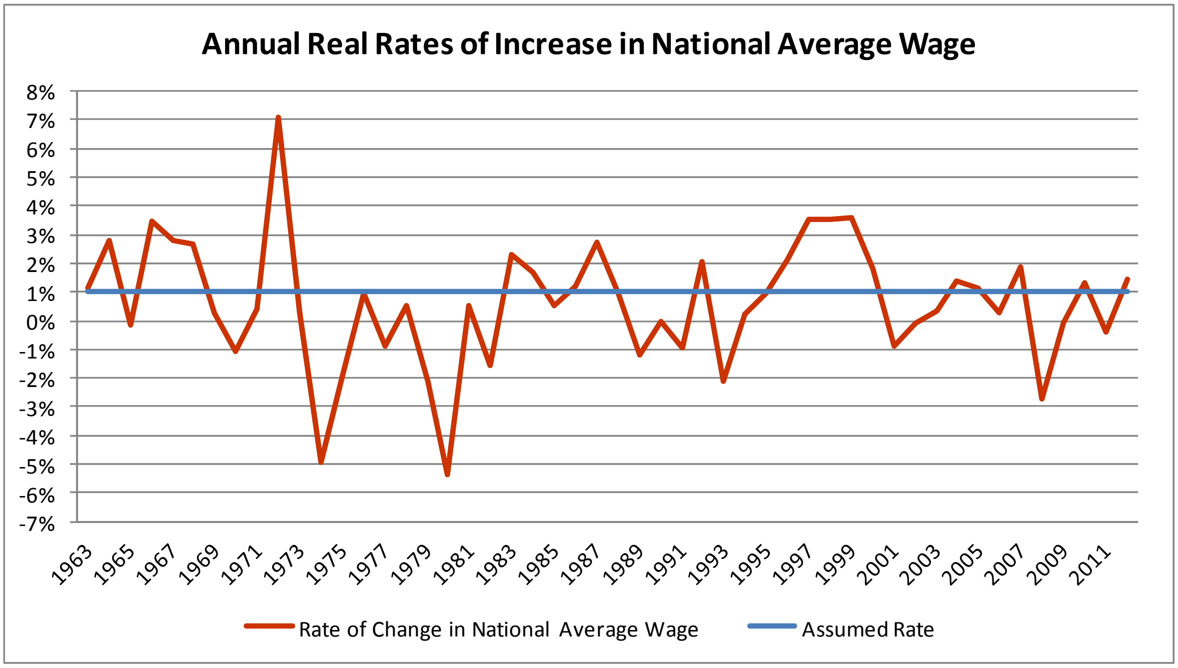
WAGE INFLATION

Background: The assumed future increases in salaries consist of an inflation component and a component for promotion and longevity, often called merit increases. Merit increases are generally age and/or service related, and will be studied in the demographic assumption section of the report. Wage inflation normally is above price inflation, which reflects the overall return on labor in the economy. The current wage inflation assumption is 4.50%, or 1.00% above price inflation.

Past Experience: The Social Security Administration publishes data on wage growth in the United States. Appendix C shows the last 50 calendar years' data. As we did in our analysis of inflation, in the table below, we show the wage inflation and a comparison with the price inflation over various time periods. Since wage data is only available through 2012 we use that year as the end point.

Period	Wage Inflation	Price Inflation	Real Wage Growth
2002-2012	2.92%	2.46%	0.44%
1992-2012	3.35	2.49	0.83
1982-2012	3.79	2.91	0.85
1972-2012	4.67	4.36	0.30
1962-2012	4.78	4.14	0.62

Thus, over the last 50 years, annual real wage growth has averaged 0.62%. The graph on the following page shows the annual increases in real wage growth over the entire 50-year period.



Recommendation: As we did with price inflation, we again look at the 2013 OASDI Trustees Report. The Chief Actuary for Social Security bases the 75-year cost projections on a national wage growth assumption 1.1% greater than the price inflation assumption of 2.8%. We concur in general with a range of .5% - 1.5%. To be more consistent with historical results, particularly in periods of relatively higher inflation, we recommend a change to 0.75% for the real wage growth assumption.

Wage Inflation Assumption		
Current	4.50%	
	Reasonable Range	
Real Wage Growth	0.50%	1.50%
Inflation	3.25	3.25
Total	3.75%	4.75%
Recommended	4.00%	

DEMOGRAPHIC ASSUMPTIONS

There are several demographic assumptions used in the actuarial valuations performed for the Kentucky Retirement Systems. They are:

- Rates of Mortality
- Rates of Service Retirement
- Rates of Disability Retirement
- Rates of Withdrawal
- Rates of Salary Increase for Merit and Promotions
- Other Post-Employment Benefit Assumptions

The Actuarial Standards Board has issued Actuarial Standard of Practice (ASOP) No. 35, *"Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations"*, which provides guidance to actuaries in selecting demographic assumptions for measuring obligations under defined benefit plans. In our opinion, the demographic assumptions recommended in this report have been developed in accordance with ASOP No. 35.

The purpose of a study of demographic experience is to compare what actually happened to the membership during the study period (July 1, 2008 through June 30, 2013) with what was expected to happen based on the assumptions used in the most recent actuarial valuations.

Detailed tabulations by age, service and/or gender are performed over the entire study period. These tabulations look at all active and retired members during the period as well as separately identifying those who experience a demographic event, also referred to as a decrement. In addition, the tabulation of all members together with the current assumptions permits the calculation of the number of expected decrements during the study period.

If the actual experience differs significantly from the overall expected results, or if the pattern of actual decrements, or rates of decrement, by age, gender, or service does not follow the expected pattern, new assumptions are recommended. Recommended changes usually do not follow the exact actual experience during the observation period. Judgment is required to extrapolate future experience from past trends and current member behavior. In addition non-recurring events, such as early retirement windows, need to be taken into account in determining the weight to give to recent experience.

The remainder of this section presents the results of the demographic study. We have prepared graphs and tables that show a comparison of the actual and expected decrements and the overall ratio of actual to expected results under the current assumptions. If a change is being proposed, the revised actual to expected ratios are shown as well.

RATES OF MORTALITY

Mortality tables are a fundamental assumption in actuarial valuations. Because benefits are typically paid over a retiree's lifetime, it is important to appropriately reflect what a typical lifetime looks like. In addition, deaths before retirement may also result in the payout of benefits to a spouse or survivor. For valuation purposes, we must consider mortality tables for retirees, beneficiaries of retirees, disabled retirees, and active members.

Retiree and Beneficiary Mortality

The post-retirement mortality rates used in the actuarial valuation project the percentage of retirees who are expected to die in a given future year. This assumption is a very important demographic assumption since it typically has the most significant impact on liability projections.

Based upon the long term trend of mortality improvement, actuaries seek to account for future improvements in longevity, either by directly projecting future improvements or by maintaining a sufficient margin in expected rates of mortality to allow for future improvement. We propose that the selected table reflect some degree of future improvement now, thereby providing a margin for improvement. The current table is the 1983 Group Annuity Mortality Table for all retired members and beneficiaries as of June 30, 2006 and the 1994 Group Annuity Mortality Table for all other members.

Retiree and Beneficiary Mortality Experience Under Current Assumptions

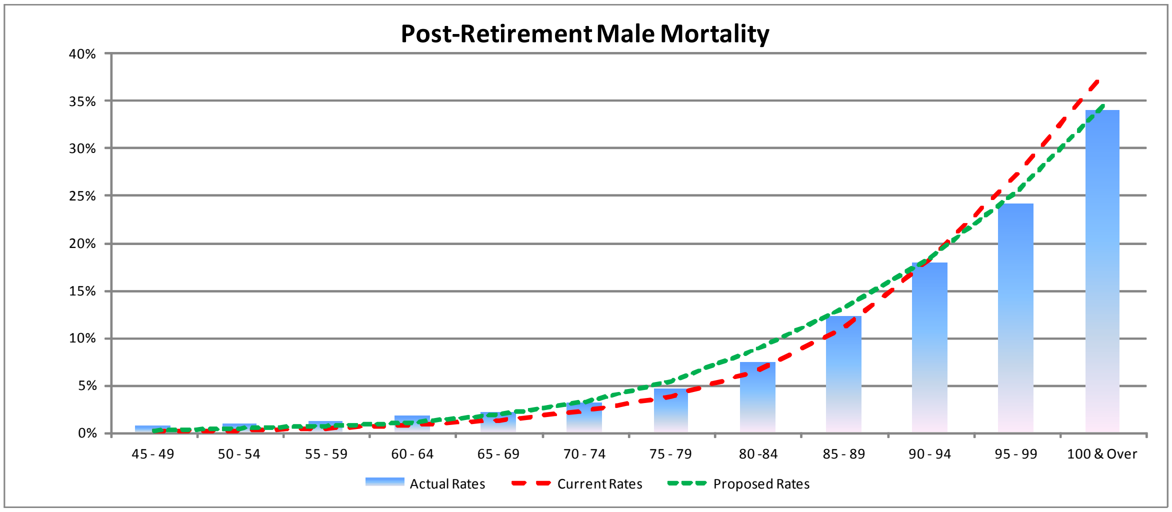
The analysis of the actual post-retirement mortality experience over the five-year study period yields actual/expected ratios of 103% and 106% respectively for males and females.

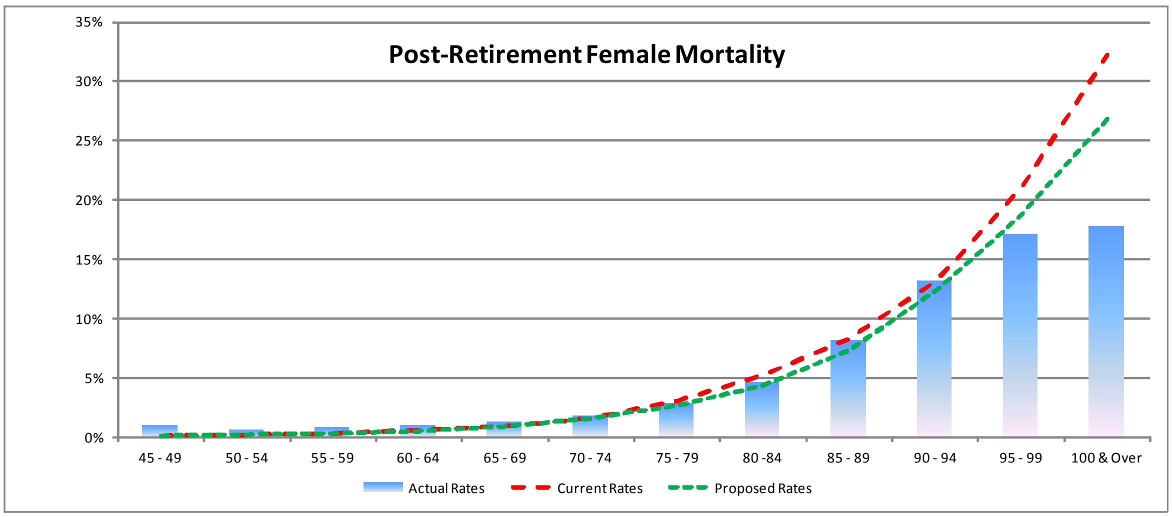
	Post-Retirement Mortality Experience					
	Males			Females		
	Actual	Expected	Ratio	Actual	Expected	Ratio
Age Group			Actual/Expected			Actual/Expected
Under 40	47	0.57	82.46	49	0.40	122.50
40 - 44	21	12.84	1.64	33	0.90	36.67
45 - 49	43	16.40	2.62	45	5.85	7.69
50 - 54	127	63.03	2.01	82	28.06	2.92
55 - 59	306	182.24	1.68	216	91.88	2.35
60 - 64	626	383.34	1.63	426	241.74	1.76
65 - 69	643	595.48	1.08	558	426.65	1.31
70 - 74	740	794.32	0.93	646	590.57	1.09
75 - 79	771	904.10	0.85	733	804.72	0.91
80 -84	769	920.85	0.84	867	992.19	0.87
85 - 89	637	682.85	0.93	942	959.35	0.98
90 - 94	282	290.50	0.97	646	643.34	1.00
95 - 99	71	75.30	0.94	218	270.20	0.81
100 & Over	41	63.23	0.65	55	143.19	0.38
TOTAL	5,124	4,985.05	1.03	5,516	5,199.04	1.06

Retiree and Beneficiary Mortality Findings and Recommendations

Experience indicates that overall more members have died than expected during the study period at younger ages while fewer members have died than anticipated during the study period at older ages. We recommend updating the post-retirement mortality assumption to the RP-2000 projected to 2013 with the BB projection scale set back 1 year for females. The complete tables of recommended mortality rates are shown in Appendix D.

The charts below show (i) the actual rates of mortality for retirees and beneficiaries by age during the past five years, (ii) the current assume rates of mortality and (iii) the recommended assumed rates of mortality.





Retiree and Beneficiary Mortality Experience Under Proposed Assumptions

The actual/expected ratios based on the recommended assumption is 1.37% compared to 1.03% for males and 1.19% compared to 1.06% for females under the current assumption. The higher ratios under the recommend assumption anticipate a margin for mortality improvement in the future.

	Post-Retirement Mortality					
	Males			Females		
Age Group	Actual	Proposed	Ratio Actual/Expected	Actual	Proposed	Ratio Actual/Expected
Under 40	47	0.47	100.00	49	0	148.48
40 - 44	21	1.82	11.54	33	1	38.37
45 - 49	43	12.09	3.56	45	6	7.60
50 - 54	127	39.94	3.18	82	27	3.05
55 - 59	306	123.17	2.48	216	85	2.54
60 - 64	626	274.61	2.28	426	224	1.90
65 - 69	643	412.62	1.56	558	427	1.31
70 - 74	740	546.29	1.35	646	576	1.12
75 - 79	771	643.79	1.20	733	700	1.05
80 -84	769	686.74	1.12	867	825	1.05
85 - 89	637	577.04	1.10	942	845	1.11
90 - 94	282	289.60	0.97	646	604	1.07
95 - 99	71	80.23	0.88	218	239	0.91
100 & Over	41	45.59	0.90	55	83	0.66
TOTAL	5,124	3734.00	1.37	5,516	4,642.38	1.19

Disabled Retiree Mortality

Members who retire under the disability retirement provisions are generally expected to be less healthy than the overall population. Currently, the assumption for this group is the Group Annuity Mortality Table set forward 5 years. The study period yielded actual/expected ratios of 138% and 174% respectively for males and females. These ratios indicate more disabled individuals are dying at a rate that is greater rate than as currently assumed.

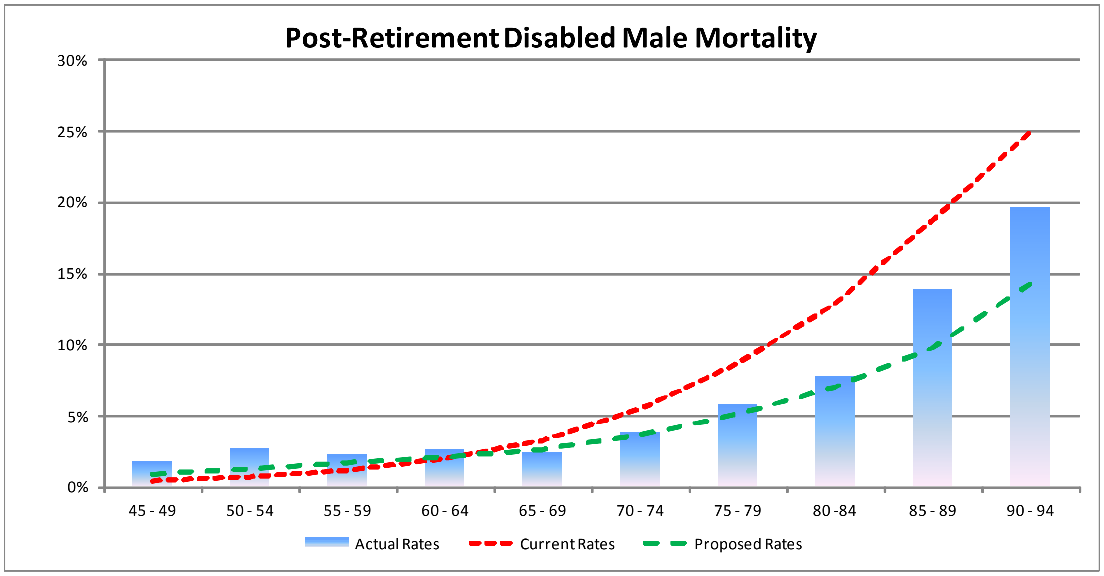
Disabled Retiree Mortality Experience Under Current Assumptions

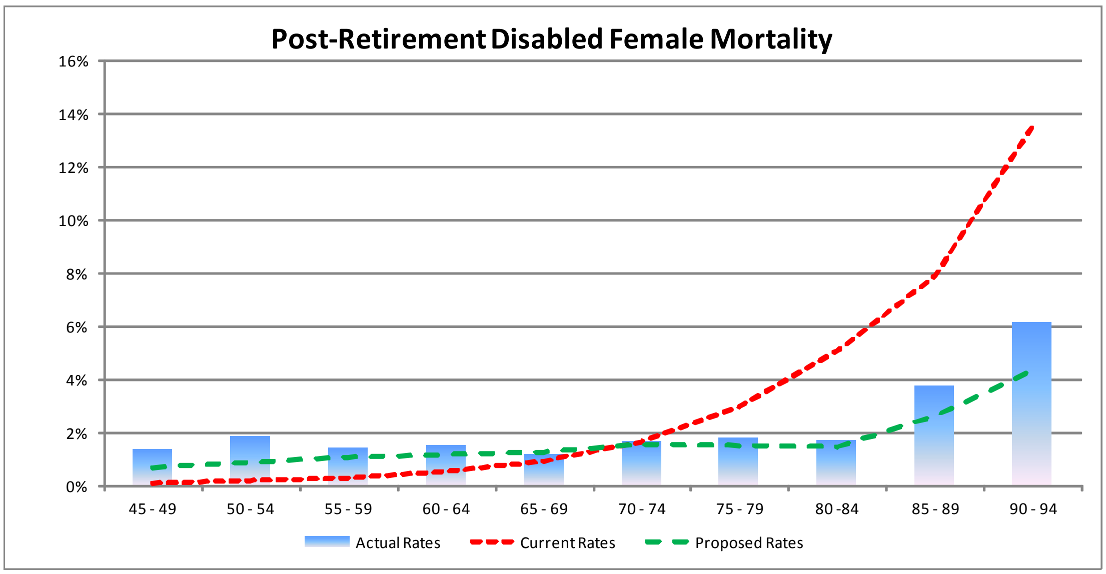
	Post-Retirement Disabled Mortality					
	Males			Females		
Age Group	Actual	Expected	Ratio Actual/Expected	Actual	Expected	Ratio Actual/Expected
Under 40	6	0	21.43	4	0	57.14
40 - 44	6	1	5.77	8	0	27.59
45 - 49	18	4	4.48	12	1	9.23
50 - 54	42	10	4.17	37	4	8.47
55 - 59	68	26	2.64	52	13	4.01
60 - 64	91	53	1.72	83	29	2.87
65 - 69	100	71	1.41	70	48	1.47
70 - 74	95	86	1.10	85	68	1.25
75 - 79	66	81	0.81	57	50	1.14
80 -84	45	43	1.04	21	22	0.96
85 - 89	12	22	0.55	14	13	1.04
90 - 94	9	7	1.24	9	10	0.90
95 - 99	2	1	1.37	2	3	0.68
100 & Over	1	0	2.13	0	0	0.00
TOTAL	561	407.01	1.38	454	261.34	1.74

Disabled Retiree Mortality Findings and Recommendations

Experience indicates that overall more members have died than expected during the study period. We recommend updating the post-retirement mortality assumption to the RP-2000 Combined Disabled Mortality projected to 2013 with the BB projection scale and the males set back 4 years to be consistent with the recommendation for healthy post retirement mortality assumption. The complete tables of recommended mortality rates are shown in Appendix D.

The charts below show (i) the actual rates of mortality for disabled retirees by age during the past five years, (ii) the current assume rates of disabled mortality and (iii) the recommended assumed rates of disabled mortality.





Disabled Retiree Mortality Experience Under Proposed Assumptions

The actual expected ratio based on the recommended assumption are 1.14% compared to 1.38% for males and 1.21% compared to 1.74% for females.

Age Group	TOTAL Males Actual	TOTAL Males Proposed	TOTAL Males Ratio Actual/Expected	TOTAL Females Actual	TOTAL Females Proposed	TOTAL Females Ratio Actual/Expected
Under 40	6	4.28	1.40	4	1	7.02
40 - 44	6	8.68	0.69	8	2	4.85
45 - 49	18	19.67	0.92	12	6	2.02
50 - 54	42	36.97	1.14	37	18	2.06
55 - 59	68	71.33	0.95	52	40	1.29
60 - 64	91	93.59	0.97	83	66	1.26
65 - 69	100	83.27	1.20	70	78	0.90
70 - 74	95	73.88	1.29	85	81	1.04
75 - 79	66	56.42	1.17	57	49	1.17
80 -84	45	26.71	1.68	21	19	1.13
85 - 89	12	12.50	0.96	14	10	1.44
90 - 94	9	4.18	2.15	9	6	1.41
95 - 99	2	0.89	2.25	2	2	1.16
100 & Over	1	0.31	3.26	0	0	0.00
TOTAL	561	492.68	1.14	454	376.26	1.21

Active Member Mortality

For active members, the mortality assumption is less significant since it is only a small reason that employment ends and benefits begin. Further, there is no need for a margin for future improvements as there is for retirees. For active mortality the study period yielded actual expected ratios of 74% and 79% respectively for males and females respectively.

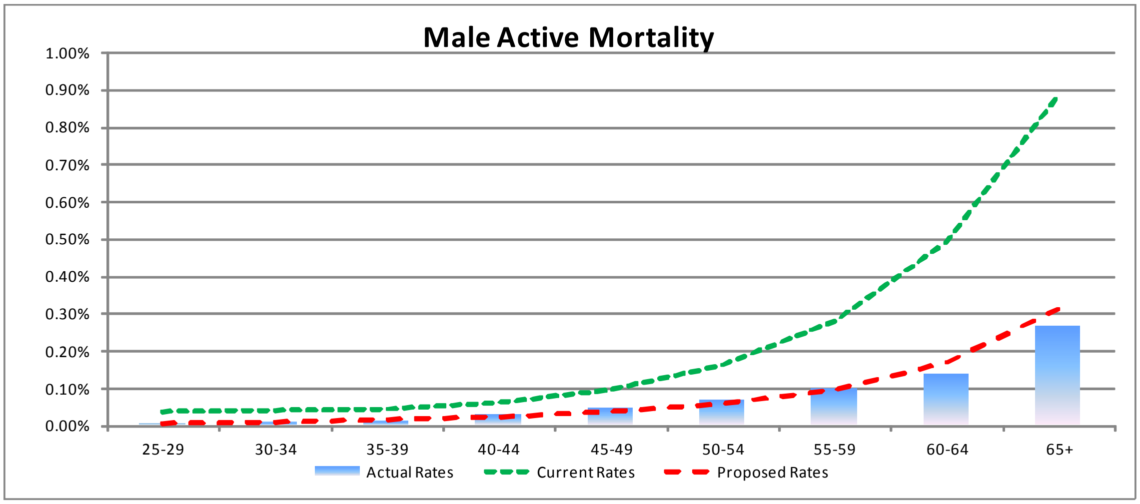
Active Member Mortality Experience Under Current Assumptions

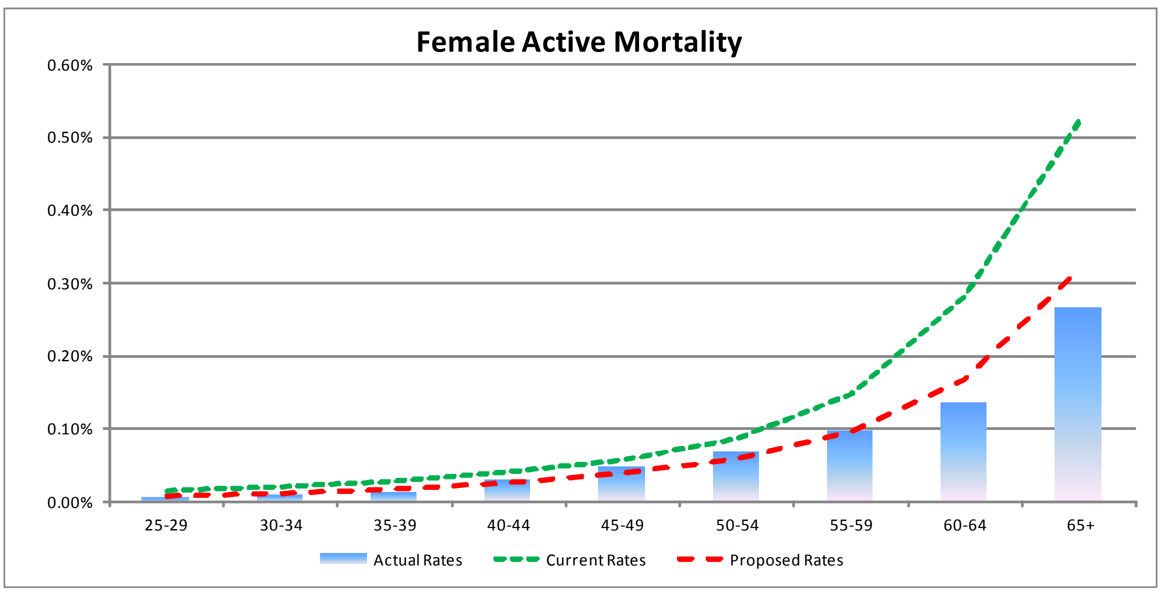
	Pre-Retirement Mortality					
	Males			Females		
Age Group	Actual	Expected	Ratio Actual/Expected	Actual	Expected	Ratio Actual/Expected
<20	0	0.46	0.00	0	0.21	0.00
20-24	6	4.78	1.26	0	2.32	0.00
25-29	8	9.56	0.84	1	4.78	0.21
30-34	10	12.90	0.78	3	6.97	0.43
35-39	19	20.59	0.92	6	11.58	0.52
40-44	19	24.66	0.77	16	15.58	1.03
45-49	41	37.61	1.09	31	24.10	1.29
50-54	41	58.04	0.71	44	37.99	1.16
55-59	74	88.60	0.84	51	56.35	0.91
60-64	52	102.47	0.51	42	65.10	0.65
65+	79	110.01	0.72	37	65.93	0.56
TOTAL	349	469.68	0.74	231	290.92	0.79

Active Member Mortality Findings and Recommendations

Experience indicates that overall fewer members have died than expected during the study period. We recommend updating the pre-retirement mortality assumption to 50% of the RP-2000 Combined Mortality Table projected to 2013 with the BB projection scale for males and 30% of the RP-2000 Combined Mortality Table projected to 2013 with the BB projection scale for females. The complete tables of recommended mortality rates are shown in Appendix D.

The charts below show (i) the actual rates of mortality for active members by age during the past five years, (ii) the current assume rates of active member mortality and (iii) the recommended assumed rates of active mortality.





Active Member Mortality Experience Under Proposed Assumptions

The actual expected ratio based on the recommended assumption are 94% compared to 74% for males and 97% compared to 79% for females respectively.

	Pre-Retirement Mortality					
	Males			Females		
Age Group	Actual	Proposed	Ratio Actual/Expected	Actual	Proposed	Ratio Actual/Expected
<20	0	0.28	0.00	0	0.01	0.00
20-24	6	2.95	2.03	0	0.47	0.00
25-29	8	4.83	1.66	1	1.68	0.60
30-34	10	8.39	1.19	3	3.65	0.82
35-39	19	19.84	0.96	6	7.65	0.78
40-44	19	22.92	0.83	16	14.24	1.12
45-49	41	32.60	1.26	31	25.21	1.23
50-54	41	46.03	0.89	44	38.07	1.16
55-59	74	70.31	1.05	51	49.98	1.02
60-64	52	81.87	0.64	42	51.86	0.81
65+	79	82.24	0.96	37	44.42	0.83
TOTAL	349	372.26	0.94	231	237.24	0.97

RATES OF SERVICE RETIREMENT

The service retirement rates used in the actuarial valuations project the percentage of employees who are expected to retire during a given year. This assumption does not include the retirement patterns of the individuals who terminated from active membership prior to their retirement. Retirements that occurred during the 2012/2013 plan year were not included in this analysis due to significant plan changes which were implemented under SB2 which may have caused members to retire when they otherwise would not have.

KERS Non-Hazardous Members

For members who began participation prior to September 1, 2008 KERS provides an unreduced retirement benefit upon obtaining age 65 and at least one month of service. KERS also provides a reduced benefit to members who retire upon obtaining age 55 and at least 60 months service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65 or has less than 27 years of service, whichever is smaller.

For members who began participation on or after September 1, 2008 KERS provides an unreduced retirement benefit upon obtaining age 65 and at least 60 month of service or age 57 and “Rule of 87”. KERS also provides a reduced benefit to members who retire upon obtaining age 60 and at least 10 years service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65 or does not meet the “Rule of 87” and is younger than age 57, whichever is smaller.

Due to lack of experience, the assumed rates of retirement are consistently applied for both the pre and post September 1, 2008 members. We recommend continuing to follow this approach until enough experience is developed for post September 1, 2008 members.

The analysis of the actual retirement experience over the five-year period yields an actual/expected ratio of 92%. An actual/expected ratio that is less than 100% indicates that less than the assumed amount of members have retired during the experience period.

KERS Non-Hazardous Service Retirement Experience Under Current Assumptions

The table below shows the retirement experience for KERS Non-Hazardous Members who retired during the experience period with less than 27 years of service. The fixed retirement age is 75. Therefore 100% of members are assumed to retire upon obtaining age 75.

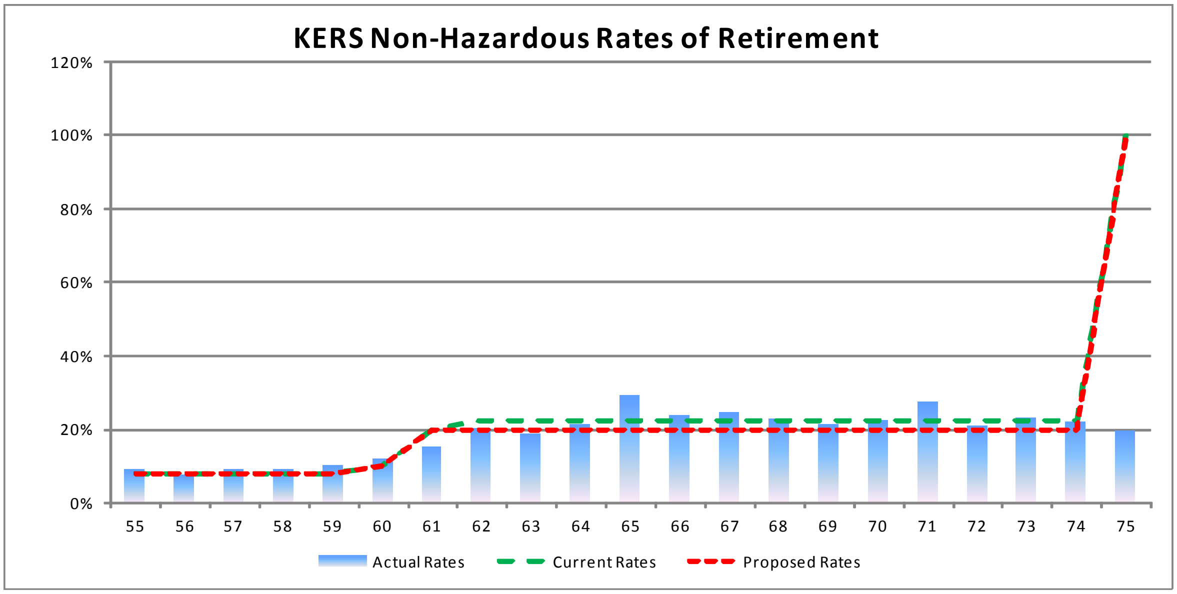
Age	Retirement Experience KERS Non-Hazardous Members Males and Females Actual	Expected	Ratio Actual/Expected
55	336	308.88	1.09
56	268	290.16	0.92
57	303	278.40	1.09
58	287	260.64	1.10
59	306	246.80	1.24
60	340	286.10	1.19
61	390	522.00	0.75
62	434	490.95	0.88
63	312	380.48	0.82
64	277	297.23	0.93
65	332	257.85	1.29
66	187	177.75	1.05
67	137	127.12	1.08
68	98	98.55	0.99
69	71	75.60	0.94
70	61	62.10	0.98
71	56	46.35	1.21
72	35	38.25	0.92
73	33	32.62	1.01
74	26	26.77	0.97
75	81	422.00	0.19
TOTAL	4,370	4,726.60	0.92

KERS Non-Hazardous Service Retirement Findings and Recommendations

We recommend an adjustment in the retirement rates based on recent experience. The complete tables of recommended rates are shown in Appendix D.

In addition, the assumed retirement rate is 25% for members who have 27 or more years of service. The actual number of members who retired with at least 27 years during the experience period was 1,815. The expected number of retirees was 1,241.75. We recommend increasing the assumed rate of retirement with 27 or more years of service to 35% to more closely match actual experience.

The chart below show (i) the actual rates of retirement for employees by age during the experience period, (ii) the current assume rates of retirement and (iii) the recommended assumed rates of retirement.



KERS Non-Hazardous Service Retirement Experience Under Proposed Assumptions

The actual/expected ratio under the proposed assumption is 97% compared to 92% under the current assumption.

	Retirement Experience KERS Non-Hazardous Members		
	Males and Females		
Age	Actual	Proposed	Ratio Actual/Proposed
55	336	308.88	1.09
56	268	290.16	0.92
57	303	278.40	1.09
58	287	260.64	1.10
59	306	246.80	1.24
60	340	286.10	1.19
61	390	522.00	0.75
62	434	436.40	0.99
63	312	338.20	0.92
64	277	264.20	1.05
65	332	229.20	1.45
66	187	158.00	1.18
67	137	113.00	1.21
68	98	87.60	1.12
69	71	67.20	1.06
70	61	55.20	1.11
71	56	41.20	1.36
72	35	34.00	1.03
73	33	29.00	1.14
74	26	23.80	1.09
75	81	422.00	0.19
TOTAL	4,370	4,491.98	0.97

KERS Hazardous Members

For members who began participation prior to September 1, 2008 KERS provides an unreduced retirement benefit upon obtaining age 55 and at least one month of service. KERS also provides a reduced benefit to members who retire upon obtaining age 50 and at least 15 years of service or any age with 20 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 55 or has less than 20 years of service, whichever is smaller.

It is currently assumed these members will begin retiring upon the earlier of obtaining 20 years of service regardless of age or age 65.

For members who began participation on or after September 1, 2008 KERS provides an unreduced retirement benefit upon obtaining age 60 and at least 60 month of service. KERS also provides a reduced benefit to members who retire upon obtaining age 50 and at least 15 years service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 60 or has less than 25 years of service, whichever is smaller.

It is currently assumed that these members will begin retiring upon the earlier of obtaining age 60 and five years of service or 25 years of service regardless of age.

Due to lack of experience, the assumed rates of retirement are consistently applied for both the pre and post September 1, 2008 members. We recommend continuing to follow this approach until enough experience is developed for post September 1, 2008 members.

KERS Hazardous Service Retirement Experience Under Current Assumptions

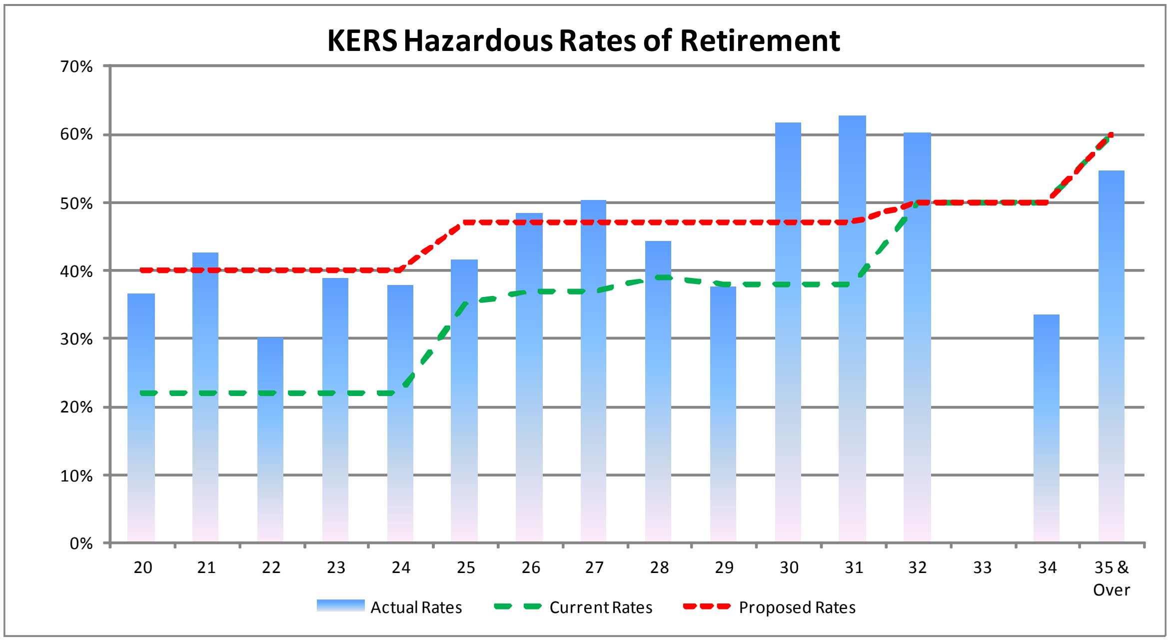
The table below shows the retirement experience for KERS Hazardous Members who retired during the experience that were less than age 65 and obtained at least 20 years of service. The fixed retirement age is 65 therefore 100% of members are assumed to retire upon obtaining age 65.

Service	Retirement Experience KERS Hazardous Members Males and Females Actual	Expected	Ratio Actual/Expected
20	102	61.60	1.66
21	82	42.46	1.93
22	41	30.14	1.36
23	45	25.52	1.76
24	32	18.70	1.71
25	29	24.50	1.18
26	26	19.98	1.30
27	16	11.84	1.35
28	11	9.75	1.13
29	6	6.08	0.99
30	8	4.94	1.62
31	5	3.04	1.64
32	3	2.50	1.20
33	0	1.50	0.00
34	1	1.50	0.67
35 & Over	6	6.60	0.91
TOTAL	413	270.65	1.53

KERS Hazardous Service Retirement Findings and Recommendations

The analysis of the actual retirement experience yields an actual/expected ratio of 153%. An actual/expected ratio greater than 100% indicates that more than the assumed amounts of members have retired during the experience period. We recommend increasing the assumed rates of retirement to more accurately reflect actual experience. The complete tables of recommended rates are show in Appendix D.

The chart below show (i) the actual rates of retirement for employees by service during the experience period, (ii) the current assume rates of retirement and (iii) the recommended assumed rates of retirement.



KERS Hazardous Service Retirement Experience Under Proposed Assumptions

The actual/expected ratio under the proposed assumption is 94% compared to 153% under the current assumption.

	Retirement Experience KERS Hazardous Members		
	Males and Females		
			Ratio
Service	Actual	Proposed	Actual/Proposed
20	102	112.00	0.91
21	82	77.20	1.06
22	41	54.80	0.75
23	45	46.40	0.97
24	32	34.00	0.94
25	29	32.90	0.88
26	26	25.38	1.02
27	16	15.04	1.06
28	11	11.75	0.94
29	6	7.52	0.80
30	8	6.11	1.31
31	5	3.76	1.33
32	3	2.50	1.20
33	0	1.50	0.00
34	1	1.50	0.67
35 & Over	6	6.60	0.91
TOTAL	413	438.96	0.94

CERS Non-Hazardous Members

For members who began participation prior to September 1, 2008 CERS provides an unreduced retirement benefit upon obtaining age 65 and at least one month of service. CERS also provides and reduced benefit to members who retire upon obtaining age 55 and at least 60 months service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65 or has less than 27 years of service, whichever is smaller.

For members who began participation on or after September 1, 2008 CERS provides an unreduced retirement benefit upon obtaining age 65 and at least 60 month of service or age 57 and “Rule of 87”. CERS also provides and reduced benefit to members who retire upon obtaining age 60 and at least 10 years service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65 or does not meet the “Rule of 87” and is younger than age 57, whichever is smaller.

Due to lack of experience, the assumed rates of retirement are consistently applied for both the pre and post September 1, 2008 members. We recommend continuing to follow this approach until enough experience is developed for post September 1, 2008 members.

CERS Non-Hazardous Service Retirement Experience Under Current Assumptions

The table below shows the retirement experience for CERS Non-Hazardous Members who retired during the experience period with less than 27 years of service. The fixed retirement age is 75. Therefore 100% of members are assumed to retire upon obtaining age 75.

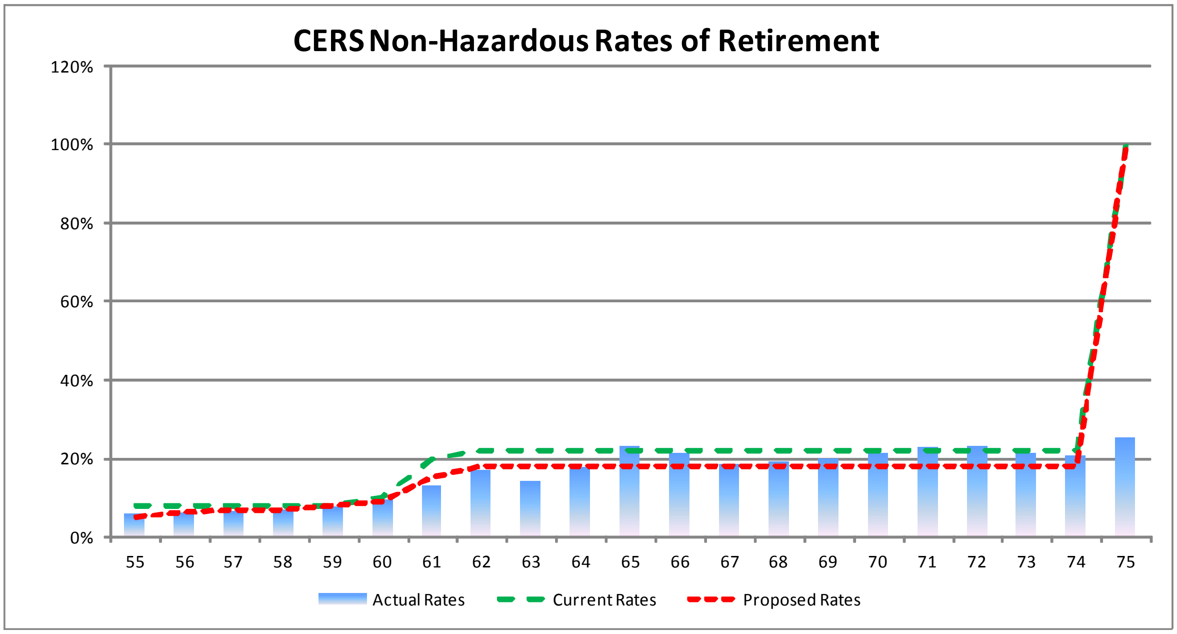
	Retirement Experience CERS Non-Hazardous Members		
	Males and Females		
Age	Actual	Expected	Ratio Actual/Expected
55	541	755.92	0.72
56	530	719.68	0.74
57	529	679.68	0.78
58	522	637.76	0.82
59	563	603.68	0.93
60	657	700.90	0.94
61	821	1,275.60	0.64
62	920	1,195.04	0.77
63	606	957.44	0.63
64	636	792.88	0.80
65	827	789.80	1.05
66	593	614.02	0.97
67	416	503.36	0.83
68	369	431.86	0.85
69	313	352.88	0.89
70	285	297.00	0.96
71	243	237.16	1.02
72	199	190.52	1.04
73	148	155.32	0.95
74	119	128.26	0.93
75	464	1,852.00	0.25
TOTAL	9,371	11,544.66	0.81

CERS Non-Hazardous Service Retirement Findings and Recommendations

The analysis of the actual retirement experience yields an actual/expected ratio of 81%. An actual/expected ratio less than 100% indicates that fewer than the assumed amounts of members have retired during the experience period. As a result, we recommend adjusting the retirement rates to more accurately reflect experience.

In addition, we assume 30% for members who have 27 or more years of service will retire. The actual number of members who retired with at least 27 years during the experience period was 1,286. The expected number of retirees was 1,725. The current assumption for a retirement with 27 or more years of service is still sufficient; therefore we recommend no change to the assumed rate of retirement with 27 or more years of service at this time. The complete tables of recommended rates are show in Appendix D.

The chart below show (i) the actual rates of retirement for employees by age during the experience period, (ii) the current assume rates of retirement and (iii) the recommended assumed rates of retirement.



CERS Non-Hazardous Service Retirement Experience Under Proposed Assumptions

The actual/expected ratio under the proposed assumption is 100% compared to 81% under the current assumption.

	Retirement Experience CERS Non-Hazardous Members		
	Males and Females		
			Ratio
Age	Actual	Proposed	Actual/Proposed
55	541	472.45	1.15
56	530	539.76	0.98
57	529	594.72	0.89
58	522	558.04	0.94
59	563	603.68	0.93
60	657	630.81	1.04
61	821	956.70	0.86
62	920	977.76	0.94
63	606	783.36	0.77
64	636	648.72	0.98
65	827	646.20	1.28
66	593	502.38	1.18
67	416	411.84	1.01
68	369	353.34	1.04
69	313	288.72	1.08
70	285	243.00	1.17
71	243	194.04	1.25
72	199	155.88	1.28
73	148	127.08	1.16
74	119	104.94	1.13
75	464	1,856.00	0.25
TOTAL	9,371	9,405.52	1.00

CERS Hazardous Members

For members who began participation prior to September 1, 2008 KERS provides an unreduced retirement benefit upon obtaining age 55 and at least one month of service. KERS also provides a reduced benefit to members who retire upon obtaining age 50 and at least 15 years of service or any age with 20 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 55 or has less than 20 years of service, whichever is smaller.

It is currently assumed these members will begin retiring upon the earlier of obtaining 20 years of service regardless of age or age 62.

For members who began participation on or after September 1, 2008 KERS provides an unreduced retirement benefit upon obtaining age 60 and at least 60 month of service. KERS also provides a reduced benefit to members who retire upon obtaining age 50 and at least 15 years service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 60 or has less than 25 years of service, whichever is smaller.

It is currently assumed that these members will begin retiring upon the earlier of obtaining age 60 and five years of service or 25 years of service regardless of age.

Due to lack of experience, the assumed rates of retirement are consistently applied for both the pre and post September 1, 2008 members. We recommend continuing to follow this approach until enough experience is developed for post September 1, 2008 members.

CERS Hazardous Service Retirement Experience Under Current Assumptions

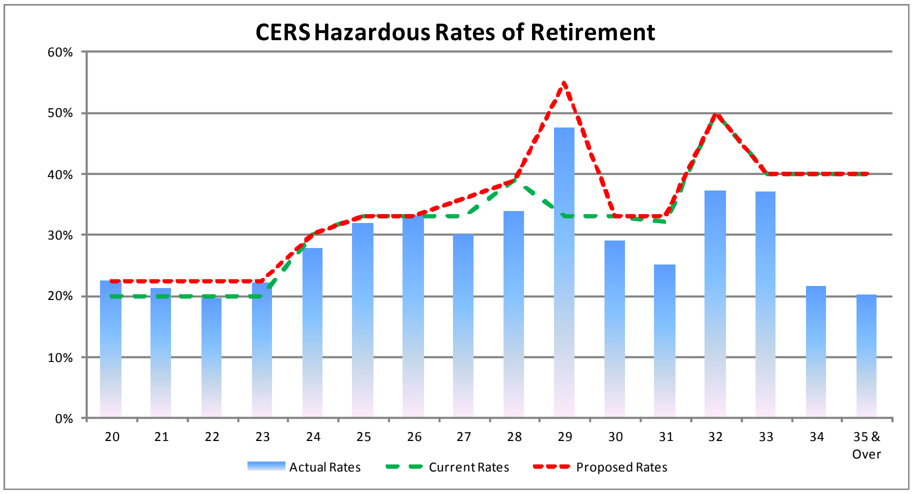
The table below shows the retirement experience for CERS Hazardous Members who retired during the experience period that were less than age 62 and obtained at least 20 years of service. The fixed retirement age is 62 therefore 100% of members are assumed to retire upon obtaining age 62.

	Retirement Experience CERS Hazardous Members Males and Females		
			Ratio
Service	Actual	Expected	Actual/Expected
20	179	160.40	1.12
21	143	136.00	1.05
22	113	116.00	0.97
23	111	100.60	1.10
24	120	130.20	0.92
25	96	99.99	0.96
26	68	67.98	1.00
27	41	45.21	0.91
28	32	37.05	0.86
29	28	19.47	1.44
30	11	12.54	0.88
31	8	10.23	0.78
32	10	13.50	0.74
33	7	7.60	0.92
34	3	5.60	0.54
35 & Over	3	6.00	0.50
TOTAL	973	968.37	1.00

CERS Hazardous Service Retirement Findings and Recommendations

The analysis yields an actual/expected ratio of 100% for the experience period. An actual/expected ratio of 100% indicates that overall, the assumption has matched experience. We recommend a slight adjustment to the assumed retirement rates. The complete tables of recommended rates are show in Appendix D.

The chart below show (i) the actual rates of retirement for employees by service during the experience period, (ii) the current assume rates of retirement and (iii) the recommended assumed rates of retirement.



CERS Hazardous Service Retirement Experience Under Proposed Assumptions

The actual/expected ratio under the proposed assumption is 93% compared to 100% under the current assumption.

	Retirement Experience CERS Hazardous Members Males and Females		
Service	Actual	Proposed	Ratio Actual/Proposed
20	179	180.45	0.99
21	143	153.00	0.93
22	113	130.50	0.87
23	111	113.18	0.98
24	120	130.20	0.92
25	96	99.99	0.96
26	68	67.98	1.00
27	41	49.32	0.83
28	32	37.05	0.86
29	28	32.45	0.86
30	11	12.54	0.88
31	8	10.56	0.76
32	10	13.50	0.74
33	7	7.60	0.92
34	3	5.60	0.54
35 & Over	3	6.00	0.50
TOTAL	973	1,049.92	0.93

SPRS Members

For members who began participation prior to September 1, 2008 SPRS provides an unreduced retirement benefit upon obtaining age 55 and at least one month of service. SPRS also provides a reduced benefit to members who retire upon obtaining age 50 and at least 15 years of service or any age with 20 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 55 or has less than 20 years of service, whichever is smaller.

It is currently assumed these members will begin retiring upon the earlier of obtaining 20 years of service regardless of age or age 55.

For members who began participation on or after September 1, 2008 SPRS provides an unreduced retirement benefit upon obtaining age 60 and at least 60 month of service. SPRS also provides a reduced benefit to members who retire upon obtaining age 50 and at least 15 years service or any age with 25 years of service. The normal retirement benefit is reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 60 or has less than 25 years of service, whichever is smaller.

It is currently assumed that these members will begin retiring upon the earlier of obtaining age 60 and five years of service or 25 years of service regardless of age.

Due to lack of experience, the assumed rates of retirement are consistently applied for both the pre and post September 1, 2008 members. We recommend continuing to follow this approach until enough experience is developed for post September 1, 2008 members.

SPRS Service Retirement Experience Under Current Assumptions

The table below shows the retirement experience for SPRS Members who retired during the experience period that were less than age 55 and obtained at least 20 years of service. The fixed retirement age is 55 therefore 100% of members are assumed to retire upon obtaining age 55.

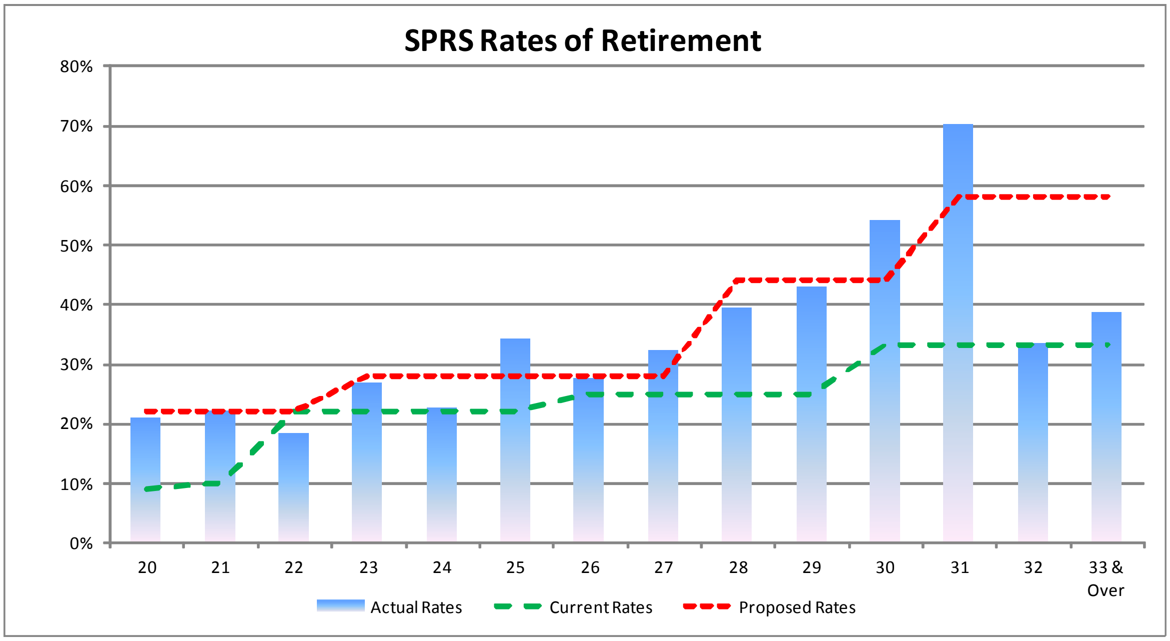
The analysis of actual retirement experience over the experience period yields and actual/expected ratio 158%. An actual/expected ratio greater than 100% indicates that more than the assumed number of retirees has retired during the experience period.

	Retirement Experience SPRS Members Males and Females		
Service	Actual	Expected	Ratio Actual/Expected
20	22	9.54	2.31
21	22	9.00	2.44
22	16	8.80	1.82
23	20	16.50	1.21
24	13	12.76	1.02
25	18	11.66	1.54
26	11	8.80	1.25
27	9	7.00	1.29
28	11	7.00	1.57
29	9	5.25	1.71
30	7	3.25	2.15
31	7	3.33	2.10
32	1	1.00	1.00
33 & Over	5	4.33	1.15
TOTAL	171	108.22	1.58

SPRS Service Retirement Findings and Recommendations

Overall, the assumption is underestimating retirements. As a result we recommend increasing retirement rates to more accurately match experience. The complete tables of recommended rates are show in Appendix D.

The chart below show (i) the actual rates of retirement for employees by service during the past five years, (ii) the current assume rates of retirement and (iii) the recommended assumed rates of retirement.



SPRS Service Retirement Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 96% compared to 158% based on the current assumption.

Service	Retirement Experience SPRS Members Males and Females		
	Actual	Proposed	Ratio Actual/Proposed
20	22	23.32	0.94
21	22	22.00	1.00
22	16	19.36	0.83
23	20	21.00	0.95
24	13	16.24	0.80
25	18	14.84	1.21
26	11	11.20	0.98
27	9	7.84	1.15
28	11	12.32	0.89
29	9	9.24	0.97
30	7	5.72	1.22
31	7	5.80	1.21
32	1	1.74	0.57
33 & Over	5	7.54	0.66
TOTAL	171	178.16	0.96

RATES OF DISABILITY RETIREMENT

The rates of disability retirement used in the actuarial valuation project the percentage of employees who are expected to become disabled each year and begin to receive a disability retirement benefit. A non-hazardous and hazardous member must have at least 60 months of service to qualify for a disability retirement benefit.

KERS Non-Hazardous Members

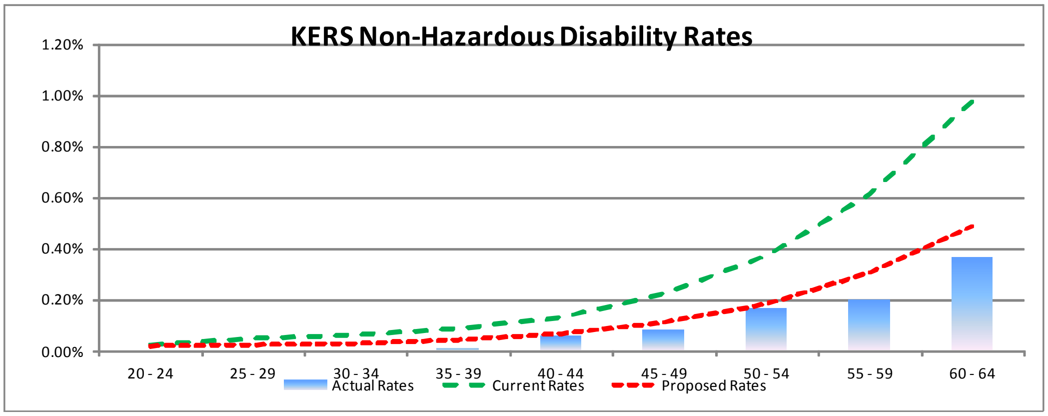
KERS Non-Hazardous Disability Retirement Experience Under Current Assumptions

	Disability Experience KERS Non-Hazardous Members		
Age Group	Actual	Expected	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	0	1.68	0.00
25 - 29	0	9.84	0.00
30 - 34	0	16.29	0.00
35 - 39	2	27.14	0.07
40 - 44	17	41.82	0.41
45 - 49	26	71.93	0.36
50 - 54	48	110.80	0.43
55 - 59	48	148.44	0.32
60 & Over	52	139.10	0.37
TOTAL	193	567.04	0.34

KERS Non-Hazardous Disability Retirement Findings and Recommendations

The analysis yields an actual/expected ratio of 34% over the experience period. A ratio of 34% indicates that the current assumption is overestimating the number of disability retirements. This finding is consistent with the last experience study in which we recommended reducing assumed rates of disability. As a result, we recommend reducing the incidences of disability retirements.

The chart below show (i) the actual rates of disability for employees by age during the past five years, (ii) the current assume rates of disability and (iii) the recommended assumed rates of disability.



KERS Non-Hazardous Disability Retirement Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 68% compared to 34% based on the current assumption.

	Disability Experience KERS Non-Hazardous Members		
	Total		
Age Group	Actual	Proposed	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	0	1.33	0.00
25 - 29	0	4.92	0.00
30 - 34	0	8.14	0.00
35 - 39	2	13.56	0.15
40 - 44	17	20.91	0.81
45 - 49	26	35.96	0.72
50 - 54	48	55.41	0.87
55 - 59	48	74.22	0.65
60 & Over	52	69.55	0.75
TOTAL	193	283.98	0.68

KERS Hazardous Members

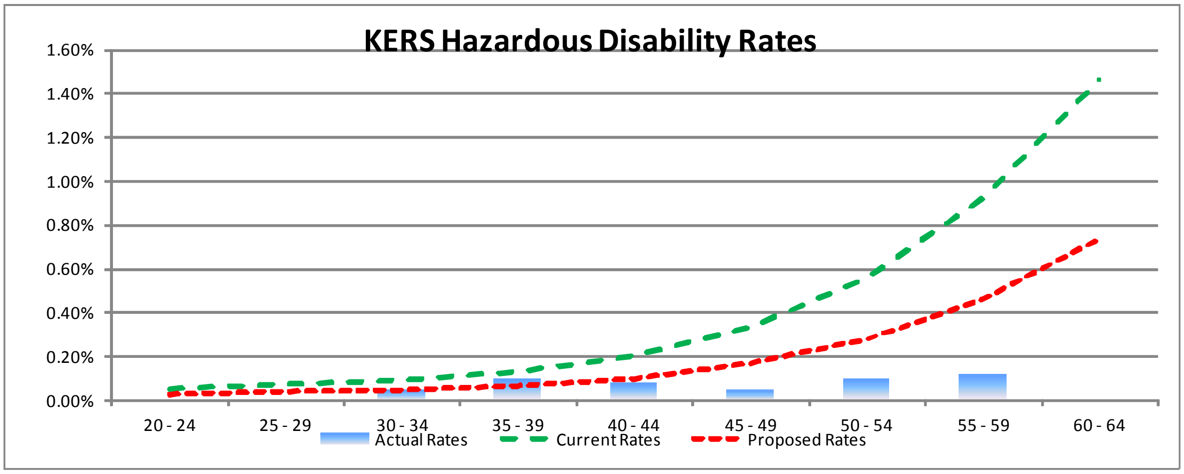
KERS Hazardous Disability Retirement Experience Under Current Assumptions

Age Group	Disability Experience KERS Hazardous Members		
	Males		
	Actual	Expected	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	0	0.47	0.00
25 - 29	0	1.74	0.00
30 - 34	1	2.39	0.42
35 - 39	3	4.05	0.74
40 - 44	2	5.61	0.36
45 - 49	1	7.68	0.13
50 - 54	2	11.99	0.17
55 - 59	2	16.13	0.12
60 & Over	0	15.21	0.00
TOTAL	11	65	0.17

KERS Hazardous Disability Retirement Findings and Recommendations

The analysis yields an actual/expected ratio of 17% over the experience period. A ratio of 17% indicates that the current assumption is overestimating the number of disability retirements. This finding is consistent with the last experience study in which we recommended reducing assumed rates of disability. As a result, we recommend reducing the incidences of disability retirements.

The chart below show (i) the actual rates of disability for employees by age during the past five years, (ii) the current assume rates of disability and (iii) the recommended assumed rates of disability.



KERS Hazardous Disability Retirement Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 31% compared to 17% based on the current assumption.

	Disability Experience KERS Hazardous Members		
	Total		
			Ratio
Age Group	Actual	Proposed	Actual/Expected
Under 20	0	0.00	0.00
20 - 24	0	0.23	0.00
25 - 29	0	0.87	0.00
30 - 34	0	1.20	0.00
35 - 39	1	2.03	0.49
40 - 44	3	2.81	1.07
45 - 49	2	3.84	0.52
50 - 54	4	5.99	0.67
55 - 59	0	8.07	0.00
60 & Over	0	7.60	0.00
TOTAL	10	32.64	0.31

CERS Non-Hazardous Members

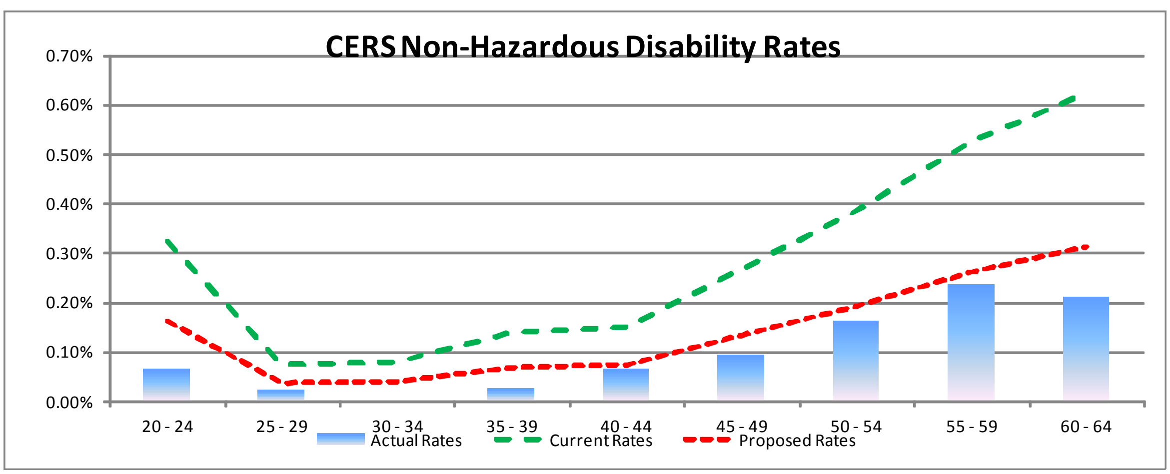
CERS Non-Hazardous Disability Retirement Experience Under Current Assumptions

Age Group	Disability Experience CERS Non-Hazardous Members Total Actual	Expected	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	1	5.20	0.19
25 - 29	3	10.71	0.28
30 - 34	0	17.93	0.00
35 - 39	7	40.31	0.17
40 - 44	30	70.49	0.43
45 - 49	49	141.66	0.35
50 - 54	103	246.65	0.42
55 - 59	155	347.45	0.45
60 & Over	118	353.19	0.33
TOTAL	466	1,233.59	0.38

CERS Non-Hazardous Disability Retirement Findings and Recommendations

The analysis yields an actual/expected ratio of 38% over the experience period. A ratio of 38% indicates that the current assumption is overestimating the number of disability retirements. This finding is consistent with the last experience study in which we recommended reducing assumed rates of disability. As a result, we recommend reducing the incidences of disability retirements.

The chart below show (i) the actual rates of disability for employees by age during the past five years, (ii) the current assume rates of disability and (iii) the recommended assumed rates of disability.



CERS Non-Hazardous Disability Retirement Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 76% compared to 38% based on the current assumption.

Age Group	Disability Experience CERS Non-Hazardous Members Total		
	Actual	Proposed	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	1	2.60	0.39
25 - 29	3	5.35	0.56
30 - 34	0	8.97	0.00
35 - 39	7	20.15	0.35
40 - 44	30	35.24	0.85
45 - 49	49	70.82	0.69
50 - 54	103	123.33	0.84
55 - 59	155	173.71	0.89
60 & Over	118	176.59	0.67
TOTAL	466	616.76	0.76

CERS Hazardous Members

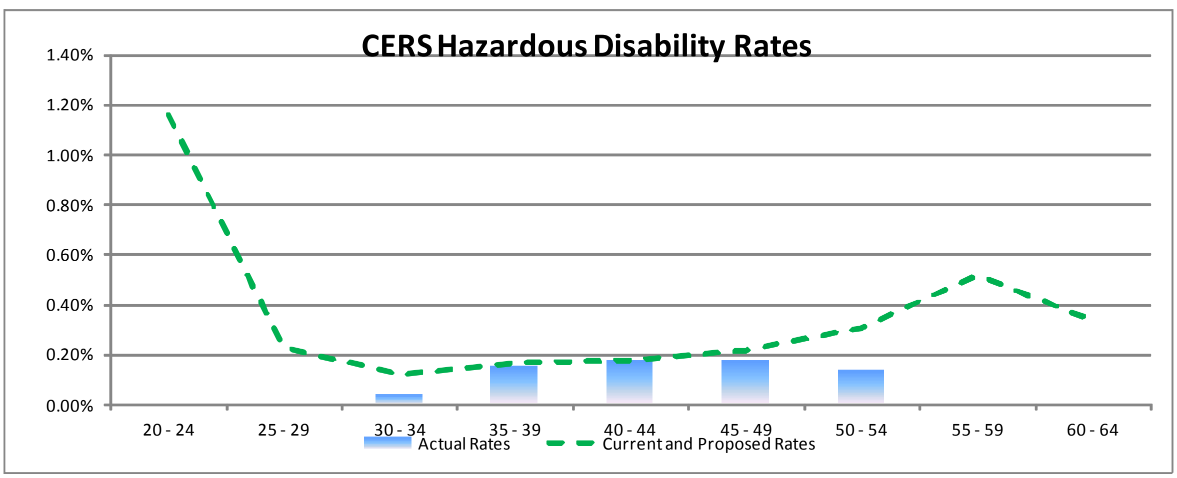
CERS Hazardous Disability Retirement Experience Under Current Assumptions

Age Group	Disability Experience CERS Hazardous Members		
	Total		
	Actual	Expected	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	0	0.94	0.00
25 - 29	0	4.02	0.00
30 - 34	2	6.74	0.30
35 - 39	11	11.88	0.93
40 - 44	16	16.12	0.99
45 - 49	14	17.34	0.81
50 - 54	7	16.04	0.44
55 - 59	0	14.86	0.00
60 & Over	0	5.39	0.00
TOTAL	50	93.33	0.54

CERS Hazardous Disability Retirement Findings and Recommendations

The analysis yields an actual/expected ratio of 54% over the experience period. A ratio of 54% indicates that the overall current assumption is overestimating the number of disability retirements. However, the current assumed rates of disability were a good indication of actual disabilities for ages 35-50, but a poor indication elsewhere. This may be attributed to lack of significant exposures and we recommend no change to the assumption at this time. We will continue to monitor in the future.

The chart below show (i) the actual rates of disability for employees by age during the past five years, (ii) the current assume rates of disability.



SPRS Members

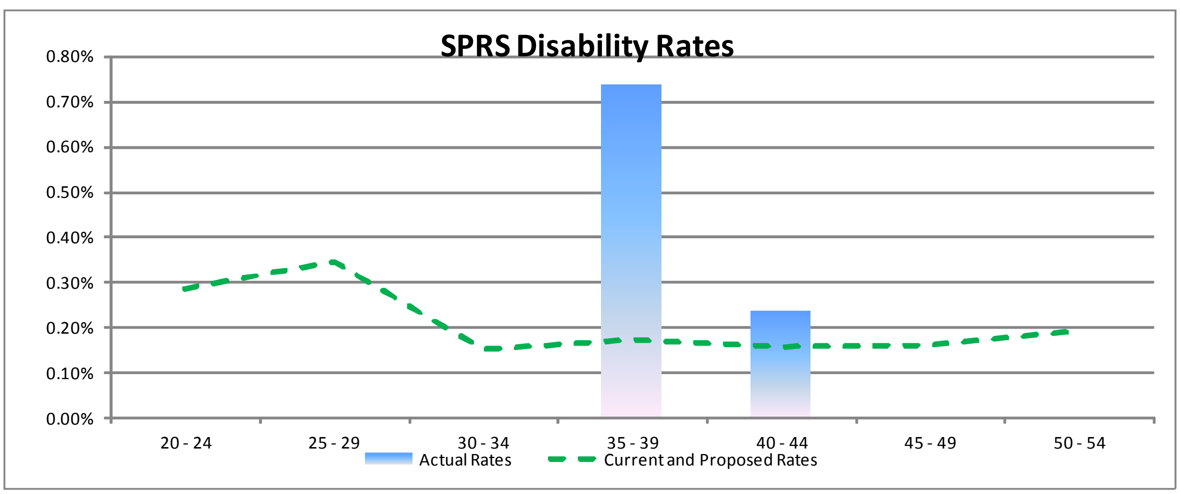
SPRS Disability Retirement Experience Under Current Assumptions

Age Group	Disability Experience SPRS Members		
	Total		
	Actual	Expected	Ratio Actual/Expected
Under 20	0	0.00	0.00
20 - 24	0	0.06	0.00
25 - 29	0	0.42	0.00
30 - 34	0	0.88	0.00
35 - 39	7	1.64	4.27
40 - 44	3	2.01	1.49
45 - 49	0	1.62	0.00
50 & Over	0	0.93	0.00
TOTAL	10	7.56	1.32

SPRS Disability Retirement Findings and Recommendations

The analysis yields an actual/expected ratio of 132% over the experience period. A ratio of 132% indicates that the current assumption is underestimating the number of disability retirements. Due to the relative small sample size of the data we are recommending no change in this assumption at this time.

The chart below show (i) the actual rates of disability for employees by age during the past five years, (ii) the current assume rates of disability.



RATES OF WITHDRAWAL

The rates of withdrawal are used to determine the expected number of separations from active service that will occur prior to attaining the eligibility requirement for a retirement benefit as a result of resignation or dismissal.

The current assumption utilizes a service based a approach for the first five years of service and then an age based approach for years of service beyond five years. Overall, termination is more correlated with service rather than age; therefore we are recommending changing from a select and ultimate age based approach to strictly a service based approach.

KERS Non-Hazardous Members

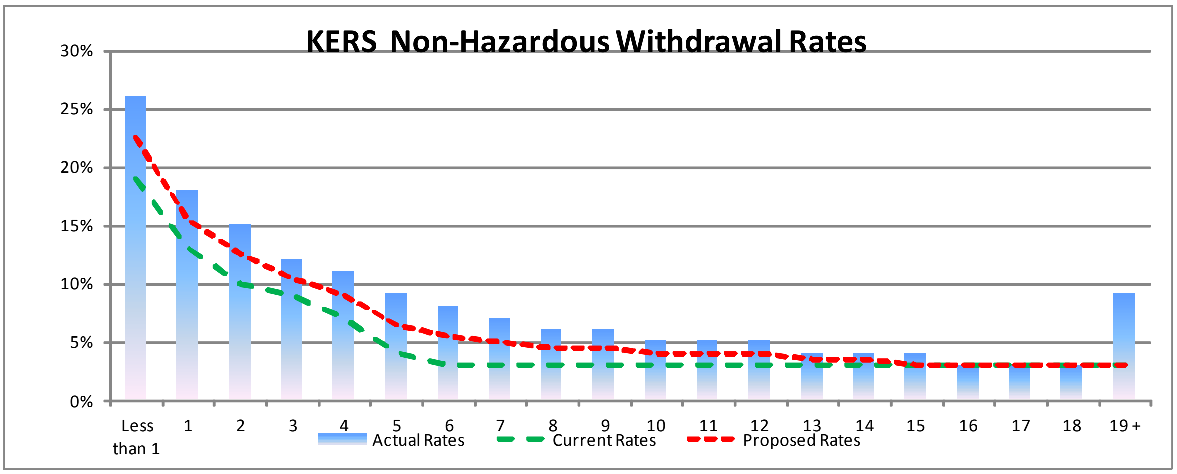
KERS Non-Hazardous Withdrawal Experience Under Current Assumptions

Year of Service	Withdrawal KERS Non-Hazardous Members Males and Females Withdrawal Experience		
	Actual	Expected	Ratio Actual/Expected
Less Than 1	4,708	3,505.31	1.34
1	3,165	2,295.54	1.38
2	2,296	1,572.90	1.46
3	1,702	1,304.64	1.30
4	1,403	836.03	1.68
5	903	356.33	2.53
6	757	313.27	2.42
7	576	293.89	1.96
8	462	275.56	1.68
9	454	263.02	1.73
10	393	241.12	1.63
11	352	214.01	1.64
12	288	182.05	1.58
13	192	159.42	1.20
14	176	143.24	1.23
15	152	122.79	1.24
16	111	103.74	1.07
17	99	103.07	0.96
18	101	92.50	1.09
19 +	1,580	552.38	2.86
TOTAL	19,870	12,930.81	1.54

KERS Non-Hazardous Withdrawal Findings and Recommendations

The analysis of the actual withdrawals from active service yielded an actual/expected ratio of 154%. A ratio greater than 100% indicates that there were more withdrawals than anticipated by the current assumption. The table above shows that the expected number of terminations was 12,930.81 compared to 19,870 actual terminations. The data reflects a general increase in the rates of withdrawal. As a result, we recommend adjusting the withdrawal rates to more closely reflect actual experience. The complete tables of recommended withdrawal rates are shown in Appendix D.

The chart below show (i) the actual rates of withdrawal for employees by service during the past five years, (ii) the current assume rates of withdrawal and (iii) the recommended assumed rates of withdrawal.



KERS Non-Hazardous Withdrawal Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 128% compared to 154% based on the current assumption.

Year of Service	Withdrawal KERS Non-Hazardous Members Males and Females Withdrawal Experience Actual	Proposed	Ratio Actual/Expected
Less Than 1	4,708	4,151.03	1.13
1	3,165	2,736.99	1.16
2	2,296	1,966.13	1.17
3	1,702	1,522.08	1.12
4	1,403	1,157.58	1.21
5	903	652.02	1.38
6	757	498.14	1.52
7	576	435.75	1.32
8	462	375.35	1.23
9	454	365.58	1.24
10	393	303.04	1.30
11	352	272.88	1.29
12	288	234.88	1.23
13	192	181.76	1.06
14	176	164.61	1.07
15	152	121.59	1.25
16	111	103.08	1.08
17	99	102.66	0.96
18	101	92.25	1.09
19 +	1,580	552.12	2.86
TOTAL	19,870	15,989.49	1.24

KERS Hazardous Members

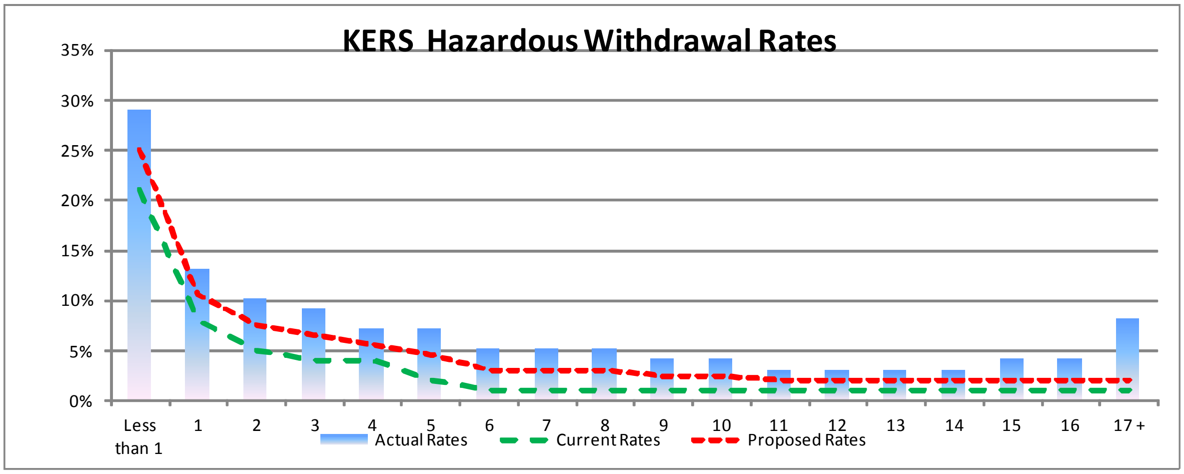
KERS Hazardous Withdrawal Experience Under Current Assumptions

Years of Service	Withdrawal KERS Hazardous Members		
	Males and Females Withdrawal Experience		
	Actual	Expected	Ratio Actual/Expected
Less Than 1	762	557.44	1.37
1	340	199.99	1.70
2	246	128.37	1.92
3	243	114.75	2.12
4	168	92.12	1.82
5	156	36.53	4.27
6	120	31.73	3.78
7	107	28.25	3.79
8	107	24.87	4.30
9	81	22.78	3.56
10	87	21.85	3.98
11	61	19.72	3.09
12	53	16.47	3.22
13	56	15.49	3.62
14	47	14.21	3.31
15	46	11.83	3.89
16	44	10.73	4.10
17 +	259	34.32	7.55
TOTAL	2,983	1,381.45	2.16

KERS Hazardous Withdrawal Findings and Recommendations

The analysis of the actual withdrawals from active service yielded an actual/expected ratio of 216%. A ratio greater than 100% indicates that there were more withdrawals than anticipated by the current assumption. The table above shows that the expected number of terminations was 1,281.45 compared to 2,983 actual terminations. The data reflects a general increase in the rates of withdrawal. As a result, we recommend adjusting the withdrawal rates to more closely reflect actual experience. The complete tables of recommended withdrawal rates are shown in Appendix D.

The chart below show (i) the actual rates of withdrawal for employees by service during the past five years, (ii) the current assume rates of withdrawal and (iii) the recommended assumed rates of withdrawal.



KERS Hazardous Withdrawal Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 147% compared to 216% based on the current assumption.

Years of Service	Withdrawal KERS Hazardous Members Males and Females Withdrawal Experience		
	Actual	Expected	Ratio Actual/Expected
Less Than 1	762	655.75	1.16
1	340	270.27	1.26
2	246	186.30	1.32
3	243	168.35	1.44
4	168	139.43	1.20
5	156	106.16	1.47
6	120	66.39	1.81
7	107	64.02	1.67
8	107	62.28	1.72
9	81	52.68	1.54
10	87	51.10	1.70
11	61	39.08	1.56
12	53	36.06	1.47
13	56	32.60	1.72
14	47	29.72	1.58
15	46	25.92	1.77
16	44	23.52	1.87
17 +	259	64.46	4.02
TOTAL	2,983	2,074.08	1.44

CERS Non-Hazardous Members

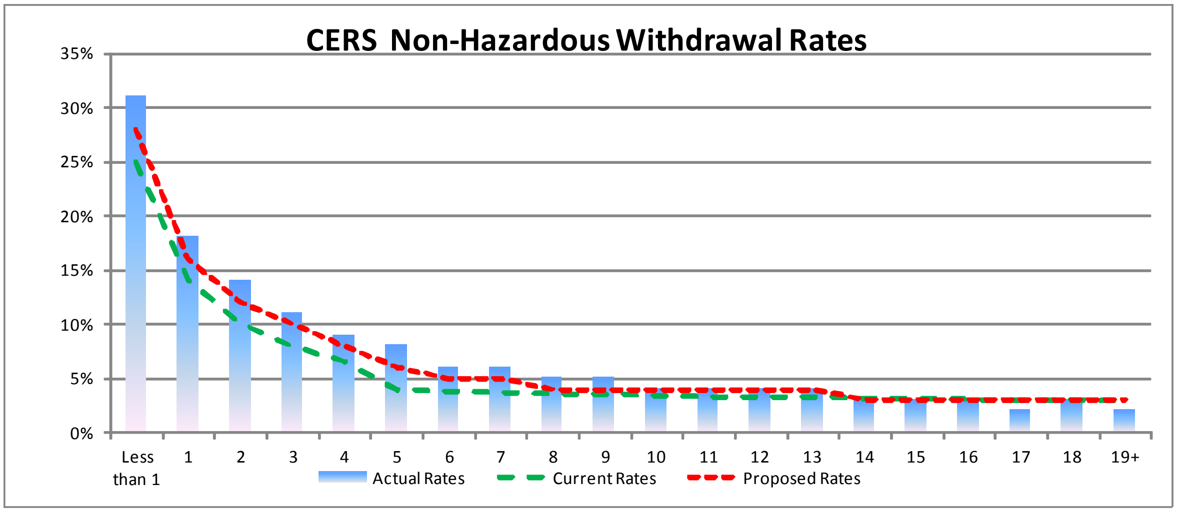
CERS Non-Hazardous Withdrawal Experience Under Current Assumptions

Year of Service	Withdrawal CERS Non-Hazardous Members		
	Males and Females Withdrawal Experience		
	Actual	Expected	Ratio Actual/Expected
Less Than 1	11,586	9,431.50	1.23
1	6,126	4,663.82	1.31
2	3,803	2,804.70	1.36
3	2,849	2,038.88	1.40
4	2,172	1,503.64	1.44
5	1,313	664.36	1.98
6	1,004	592.56	1.69
7	888	548.92	1.62
8	730	526.91	1.39
9	655	498.67	1.31
10	584	457.04	1.28
11	500	407.72	1.23
12	382	355.50	1.07
13	327	299.75	1.09
14	216	256.83	0.84
15	182	214.88	0.85
16	162	181.49	0.89
17	121	152.38	0.79
18	112	128.38	0.87
19 +	89	106.45	0.84
TOTAL	33,801	25,834.38	1.31

CERS Non-Hazardous Withdrawal Findings and Recommendations

The analysis of the actual withdrawals from active service yielded an actual/expected ratio of 131%. A ratio greater than 100% indicates that there were more withdrawals than anticipated by the current assumption. The table above shows that the expected number of terminations was 25,834.38 compared to 33,801 actual terminations. The data reflects a general increase in the rates of withdrawal. As a result, we recommend adjusting the withdrawal rates to more closely reflect actual experience. The complete tables of recommended withdrawal rates are shown in Appendix D.

The chart below show (i) the actual rates of withdrawal for employees by service during the past five years, (ii) the current assume rates of withdrawal and (iii) the recommended assumed rates of withdrawal.



CERS Non-Hazardous Withdrawal Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 112% compared to 131% based on the current assumption.

	Withdrawal CERS Non-Hazardous Members		
	Males and Females Withdrawal Experience		
Year of Service	Actual	Expected	Ratio Actual/Expected
Less Than 1	11,586	10,565.24	1.10
1	6,126	5,330.24	1.15
2	3,803	3,365.64	1.13
3	2,849	2,548.60	1.12
4	2,172	1,850.64	1.17
5	1,313	1,026.48	1.28
6	1,004	778.65	1.29
7	888	744.40	1.19
8	730	587.84	1.24
9	655	569.52	1.15
10	584	532.80	1.10
11	500	486.36	1.03
12	382	431.88	0.88
13	327	371.48	0.88
14	216	243.06	0.89
15	182	207.33	0.88
16	162	178.38	0.91
17	121	152.01	0.80
18	112	129.12	0.87
19 +	89	108.03	0.82
TOTAL	33,801	30,207.70	1.12

CERS Hazardous Members

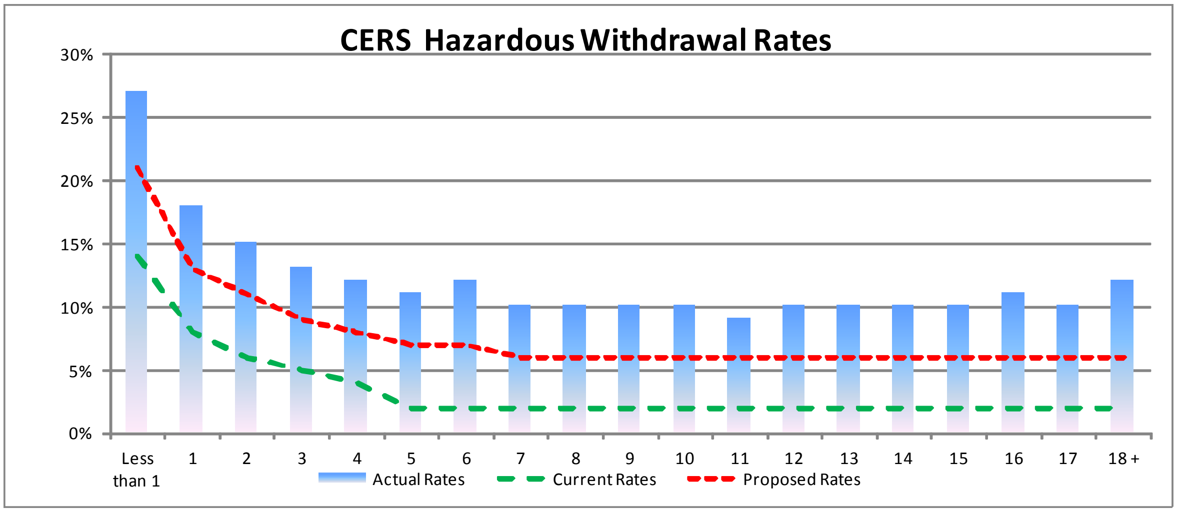
CERS Hazardous Withdrawal Experience Under Current Assumptions

Years of Service	Withdrawal CERS Hazardous Members Males and Females Withdrawal Experience Actual	Expected	Ratio Actual/Expected
Less Than 1	697	367.22	1.90
1	469	193.05	2.43
2	367	149.04	2.46
3	337	116.55	2.89
4	294	101.40	2.90
5	268	55.08	4.87
6	259	50.94	5.08
7	207	49.16	4.21
8	206	48.10	4.28
9	201	48.80	4.12
10	206	47.57	4.33
11	185	45.57	4.06
12	185	41.93	4.41
13	164	37.65	4.36
14	156	33.77	4.62
15	126	28.92	4.36
16	125	25.50	4.90
17	112	22.87	4.90
18 +	132	21.80	6.06
TOTAL	4,696	1,484.92	3.16

CERS Hazardous Withdrawal Findings and Recommendations

The analysis of the actual withdrawals from active service yielded an actual/expected ratio of 316%. A ratio greater than 100% indicates that there were more withdrawals than anticipated by the current assumption. The table above shows that the expected number of terminations was 1,484.92 compared to 4,696 actual terminations. The data reflects a general increase in the rates of withdrawal. As a result, we recommend adjusting the withdrawal rates to more closely reflect actual experience. The complete tables of recommended withdrawal rates are shown in Appendix D.

The chart below show (i) the actual rates of withdrawal for employees by service during the past five years, (ii) the current assume rates of withdrawal and (iii) the recommended assumed rates of withdrawal.



CERS Hazardous Withdrawal Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 153% compared to 316% based on the current assumption.

Years of Service	Withdrawal CERS Hazardous Members Males and Females Withdrawal Experience Actual	Expected	Ratio Actual/Expected
Less Than 1	697	550.83	1.27
1	469	334.62	1.40
2	367	273.24	1.34
3	337	233.10	1.45
4	294	202.80	1.45
5	268	165.13	1.62
6	259	154.91	1.67
7	207	128.04	1.62
8	206	124.56	1.65
9	201	126.42	1.59
10	206	122.64	1.68
11	185	117.24	1.58
12	185	108.18	1.71
13	164	97.80	1.68
14	156	89.16	1.75
15	126	77.76	1.62
16	125	70.56	1.77
17	112	65.58	1.71
18 +	132	64.02	2.06
TOTAL	4,696	3,106.59	1.51

SPRS Members

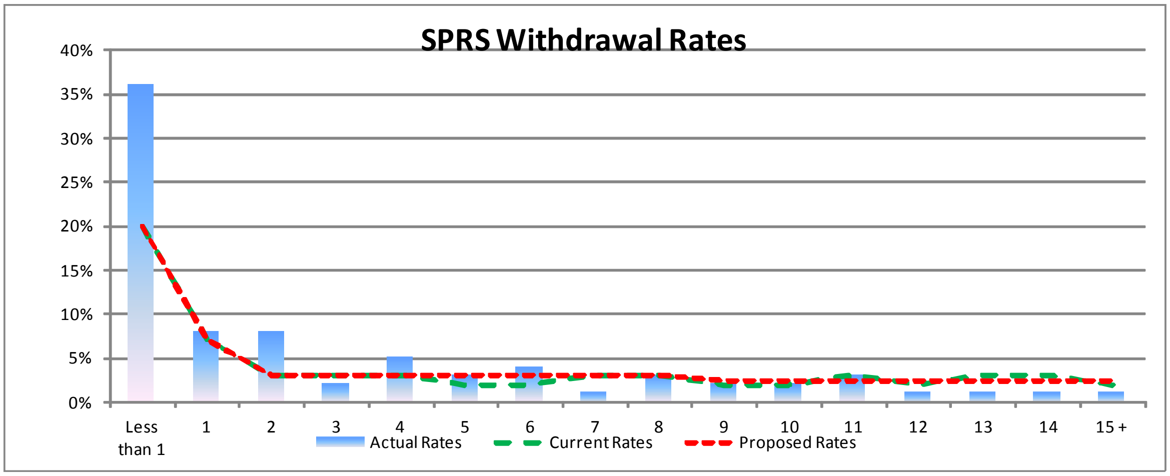
SPRS Withdrawal Experience Under Current Assumptions

Year of Service	Withdrawal SPRS Members — Males and Females Withdrawal Experience		
	Actual	Expected	Ratio Actual/Expected
Less Than 1	85	47.80	1.78
1	14	12.67	1.10
2	10	3.99	2.51
3	4	4.89	0.82
4	9	5.76	1.56
5	5	4.97	1.01
6	10	5.57	1.80
7	3	6.15	0.49
8	7	5.75	1.22
9	4	5.87	0.68
10	5	5.87	0.85
11	6	5.45	1.10
12	2	5.52	0.36
13	3	5.95	0.50
14	3	6.15	0.49
15 +	2	5.32	0.38
TOTAL	172	137.68	1.25

SPRS Withdrawal Findings and Recommendations

The analysis of the actual withdrawals from active service yielded an actual/expected ratio of 125%. A ratio greater than 100% indicates that there were more withdrawals than anticipated by the current assumption. The table above shows that the expected number of terminations was 137.68 compared to 172 actual terminations. The data reflects a general increase in the rates of withdrawal. The assumption is currently sufficient but, we recommend a slight adjustment to the withdrawal rates to smooth out the rate changes from one year of service to the next. The complete tables of recommended withdrawal rates are shown in Appendix D.

The chart below show (i) the actual rates of termination for employees by service during the past five years, (ii) the current assume rates of retirement and (iii) the recommended assumed rates of withdrawal.



SPRS Withdrawal Experience Under Proposed Assumptions

The actual/expected ratio based on the recommended assumption is 122% compared to 125% based on the current assumption.

	Withdrawal SPRS Members		
	Males and Females Withdrawal Experience		
			Ratio
Year of Service	Actual	Expected	Actual/Expected
Less Than 1	85	47.80	1.78
1	14	11.83	1.18
2	10	3.99	2.51
3	4	4.89	0.82
4	9	5.76	1.56
5	5	5.97	0.84
6	10	6.69	1.49
7	3	7.38	0.41
8	7	6.90	1.01
9	4	5.88	0.68
10	5	5.88	0.85
11	6	5.45	1.10
12	2	5.53	0.36
13	3	5.95	0.50
14	3	6.15	0.49
15	2	5.33	0.38
TOTAL	172	141.36	1.22

RATES OF SALARY INCREASE

Under the "building block" approach recommended in ASOP 27, this assumption is composed of three components; inflation, productivity (real wage increases), and merit/promotion. The inflation and productivity components are combined to produce the assumed rates of wage inflation. The rate represents the "across the board" average annual increase in salaries shown in the experience data. The merit component includes the additional increases in salary due to performance, seniority, promotions, etc.

The past five years salary experience has been influenced by a number of factors. With pressures on state and local budgets, employers responded with strategies such as pay freezes or cuts and furloughs. In general, salary increases were less than anticipated for all five systems of KRS. However, in light of the broader issues affecting pay during this period, we are not comfortable making any adjustments to the merit component of the salary scales at this time.

KERS Non-Hazardous Members

The analysis salary increases yielded an actual/expected ratio of 97%. A ratio less than 100% indicates that salary increases in general were less than anticipated by the current assumption. Due to the low inflation environment coupled with budgetary issues that faced state and local government during the experience period, we recommend no change to the salary scale other than the reduction due to the lowering of the wage base component of the total salary increase assumption from 4.50% to 4.00%.

KERS Non-Hazardous Salary Experience Under Current Assumptions

	Salaries at End of Year ($1,000)		
	KERS Non-Hazardous Members		
Years of Service	Actual	Expected	Ratio Actual/Expected
Less Than 1	220,811	217,487	1.015
1	507,093	520,958	0.973
2	484,743	498,032	0.973
3	482,475	498,747	0.967
4	444,984	459,748	0.968
5	423,318	440,350	0.961
6	391,379	403,277	0.970
7	388,915	402,451	0.966
8	377,814	391,740	0.964
9	387,872	400,573	0.968
10 +	3,734,383	3,866,063	0.966
TOTAL	7,843,787	8,099,426	0.970

KERS Hazardous Members

The analysis salary increases yielded an actual/expected ratio of 97%. A ratio less than 100% indicates that salary increases in general were less than anticipated by the current assumption. Due to the low inflation environment coupled with budgetary issues that faced state and local government during the experience period, we recommend no change to the salary scale other than the reduction due to the lowering of the wage base component of the total salary increase assumption from 4.50% to 4.00%.

KERS Hazardous Salary Experience Under Current Assumptions

	Salaries at End of Year ($1,000)		
	KERS Hazardous Members		
Years of Service	Actual	Expected	Ratio Actual/Expected
Less Than 1	24,327,498	23,916,079	1.017
1	49,144,588	50,736,156	0.969
2	43,931,350	46,267,435	0.950
3	43,740,913	46,013,576	0.951
4	39,924,315	41,644,587	0.959
5	36,047,495	37,314,158	0.966
6	32,383,428	33,346,916	0.971
7	28,975,931	30,009,393	0.966
8	25,075,203	25,901,758	0.968
9	24,122,963	24,857,151	0.970
10 +	189,129,979	195,618,216	0.967
TOTAL	536,803,663	555,625,425	0.970

CERS Non-Hazardous Members

The analysis salary increases yielded an actual/expected ratio of 98%. A ratio less than 100% indicates that salary increases in general were less than anticipated by the current assumption. Due to the low inflation environment coupled with budgetary issues that faced state and local government during the experience period, we recommend no change to the salary scale other than the reduction due to the lowering of the wage base component of the total salary increase assumption from 4.50% to 4.00%.

CERS Non-Hazardous Salary Experience Under Current Assumptions

	Salaries at End of Year ($1,000)		
	CERS Non-Hazardous Members		
Years of Service	Actual	Expected	Ratio Actual/Expected
Less Than 1	280,969	278,431	1.009
1	677,525	686,657	0.987
2	608,448	616,362	0.987
3	585,439	597,261	0.980
4	567,095	578,297	0.981
5	546,942	558,511	0.979
6	508,605	519,133	0.980
7	501,666	513,892	0.976
8	500,822	510,180	0.982
9	512,554	523,913	0.978
10 +	4,888,685	5,005,575	0.977
TOTAL	10,178,750	10,388,212	0.980

CERS Hazardous Members

The analysis salary increases yielded an actual/expected ratio of 99%. A ratio less than 100% indicates that salary increases in general were less than anticipated by the current assumption. Due to the low inflation environment coupled with budgetary issues that faced state and local government during the experience period, we recommend no change to the salary scale other than the reduction due to the lowering of the wage base component of the total salary increase assumption from 4.50% to 4.00%.

CERS Hazardous Salary Experience Under Current Assumptions

	Salaries at End of Year ($1,000)		
	CERS Hazardous Members		
Years of Service	Actual	Expected	Ratio Actual/Expected
Less Than 1	49,744	46,339	1.073
1	90,936	90,275	1.007
2	93,672	94,765	0.988
3	101,256	103,644	0.977
4	103,730	105,662	0.982
5	102,859	104,322	0.986
6	103,226	104,688	0.986
7	102,483	103,979	0.986
8	100,254	101,982	0.983
9	104,048	105,508	0.986
10 +	921,541	940,292	0.980
TOTAL	1,873,749	1,901,456	0.990

SPRS Members

The analysis salary increases yielded an actual/expected ratio of 97%. A ratio less than 100% indicates that salary increases in general were less than anticipated by the current assumption. Due to the low inflation environment coupled with budgetary issues that faced state and local government during the experience period, we recommend no change to the salary scale other than the reduction due to the lowering of the wage base component of the total salary increase assumption from 4.50% to 4.00%.

SPRS Salary Experience Under Current Assumptions

	Salaries at End of Year ($1,000)		
	SPRS Members		
	Actual	Expected	Ratio
Years of Service			Actual/Expected
Less Than 1	17,063,770	16,133,131	1.058
1	6,594,847	7,100,888	0.929
2	7,551,599	8,148,488	0.927
3	9,676,895	10,087,965	0.959
4	11,865,184	12,808,210	0.926
5	12,325,077	12,910,193	0.955
6	14,560,436	15,121,338	0.963
7	13,799,952	14,377,172	0.960
8	12,187,167	12,704,431	0.959
9	12,726,883	13,059,869	0.975
10 +	113,923,894	117,210,234	0.972
TOTAL	232,275,704	239,661,919	0.970

MISCELLANEOUS ASSUMPTIONS

Percent Married: Currently 100% of members are assumed to be married with the husband three years older than the wife. This is a common and reasonable assumption and we recommend maintaining this assumption.

OTHER POST-EMPLOYMENT BENEFIT ASSUMPTIONS

I. Economic Assumptions

In addition to the three economic assumptions used in all of the actuarial valuations performed for KRS, the Health Care Cost Trend Rates reflect the change in per capita health claims rates over time due to the following factors:

- medical inflation
- utilization
- plan design
- technology improvements

The Actuarial Standards Board has issued Actuarial Standard of Practice (ASOP) No. 6, *"Measuring Retiree Group Benefit Obligations"*, which provides guidance to actuaries in selecting economic assumptions for measuring obligations of postretirement plans other than pensions. The actuary should not consider aging of the covered population when selecting the trend assumption for projecting future costs, but should consider the following key components in setting the health care cost trend rate as noted in ASOP No. 6:

- inflation
- medical inflation
- definition of covered charges
- frequency of services
- leveraging caused by plan design features not explicitly modeled
- plan participation

When setting assumptions for projecting medical and prescription drug costs, Cavanaugh Macdonald Consulting, LLC (CMC) assumes the health benefit plan cost trend rates will decrease from an initial rate to an ultimate level. CMC's methodology for setting the initial trend rate includes the use of published annual health care inflation surveys in conjunction with actual plan experience, where credible. The initial trend rate assumption is subject to continued update and review with each valuation performed given the volatile nature of medical and prescription drug costs. There are various approaches used to determine the timing and level of decreases to the ultimate trend rate (e.g., multi-year grading period, SOA-Getzen Model). The assumed decrease in medical and prescription drug trend rates reflects the belief that health care inflation cannot indefinitely outstrip the growth rate of employer budgets and the overall economy. As a standard of practice, CMC typically assumes a grading period of five to ten years, depending on the level of change (i.e., larger differences between the initial trend rate and the ultimate trend rate are assumed to require a longer reduction period). For the ultimate trend rate assumption, Medicare expenditures increasing at the rate of long-term per capita GDP growth + 1.0% was felt to be reasonable by a 2004 Medicare Trustees Technical Review Panel, and is widely used. As a standard of practice, CMC believes the use of a “GDP+1%” to “GDP+2%” assumption is reasonable and CMC typically assumes an ultimate trend rate of 5.0%. As with any standard of practice, the specifics of each plan are reviewed to ensure there is nothing unusual that would necessitate a long-term trend rate that is either higher or lower than what is typical. It appears to be reasonable to use an ultimate rate of 5.0%, as there appears to be nothing unusual about KRS’ medical plans that would necessitate a long-term trend that is either higher or lower than what is typically used for this type of calculation.

Background: In our opinion, the economic assumptions recommended in this report have been developed in accordance with ASOP No. 6. Currently, the short term healthcare trend rates are set on an annual basis based on the information and data as previously described, with an ultimate trend rate of 5.0% that is reached after an appropriate grading period.

System Wide Recommendation: Continue to update the healthcare trends annually and base the healthcare trends on KRS’ experience and demographics while taking into account the projected trend from external sources.

II. Morbidity Assumptions

The Actuarial Standards Board has issued Actuarial Standard of Practice (ASOP) No. 6, “Measuring Retiree Group Benefit Obligations”, which provides guidance to actuaries when developing benefit cost projection assumptions for measuring obligations of postretirement plans other than pensions. As noted in ASOP No. 6, the actuary should consider the variation in rates by age for the benefits being modeled and use appropriate age bands if the rates vary significantly. The age bands should not be overly broad, based on the expected rate variations within the bands. It is inappropriate to assume a single per capita rate that does not vary by age, if the rates vary significantly by age. The relationship between the rates at various ages is an actuarial assumption that may be based on normative databases.

CMC assumes, in the absence of credible KRS plan experience, the projected, non-community-rated medical and prescription drug costs of the Plan vary significantly by age from the average cost at the central age of the applicable group based upon the paper “Aging Curves for Health Care Costs in Retirements”, The North American Actuarial Journal, July 2005, Jeffrey P. Petertil. The publication’s “Representative Curve for General Use” is used for ages 65 and older. CMC continuously monitors all available data, publications, and research projects undertaken by actuarial organizations regarding age-related morbidity (e.g., “Health Care Costs—From Birth to Death”, Health Care Cost Institute’s Independent Report Series – Report

2013-1, June 2013, Dale H. Yamamoto) and see no indication of the factors no longer being appropriate.

Background: Currently, the morbidity assumptions are used to adjust Medicare claims costs based on the benefit recipient's age. For pre-Medicare retiree claims costs, the current premium charged by the Kentucky Employees' Health Plan (KEHP) is used as the base cost and is projected forward using the healthcare trend assumption. No implicit rate subsidy is calculated or recognized as the subsidy is the responsibility of KEHP. The Medicare claims cost age adjustment assumptions are as follows.

Participant Age	Annual Increase
65-69	3.0%
70-74	2.5%
75-79	2.0%
80-84	1.0%
85-89	0.5%
90 and over	0.0%

System Wide Recommendation: Continue with the current assumption while continuing to follow up on research regarding morbidity from external sources.

III. Coverage Assumptions

The Actuarial Standards Board has issued Actuarial Standard of Practice (ASOP) No. 6, "Measuring Retiree Group Benefit Obligations", which provides guidance to actuaries in selecting coverage assumptions for measuring obligations of postretirement plans other than pensions. The "Coverage Assumptions" section includes the key components the actuary should consider in setting the coverage assumptions per ASOP No. 6:

- Choice of Coverage
- Plan Participation
- Spouse/Dependent Coverage Eligibility
- Spouse/Dependent Age Differences

A. KRS Plan Elections for Future Post-65 Retirees

Background: Beyond participation in the plan, KRS offers members a choice in coverage. As the costs vary by coverage option, the level of participation in each coverage option is considered by CMC based upon historic participation rates, how plan eligibility rules, plan choices, and retiree contribution rates have changed over time or are assumed to change in the future. The coverage choice assumptions are subject to continued update and review with each valuation performed.

Non-Hazardous Plans					
Plan Elections of Covered Members Age 65 and Older					
Year Ending June 30	2009	2010	2011	2012	2013
Medical Only	14%	13%	13%	12%	10%
Essential (Plus) Plan	8%	8%	6%	7%	7%
Premium Plan	78%	79%	81%	81%	83%

Non-Hazardous Plans Recommendation: Based upon recent experience, plan election rates have remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we propose to continue to assume that the distribution of plan elections observed on the valuation date will remain steady.

Hazardous Plans					
Plan Elections of Covered Members Age 65 and Older					
Year Ending June 30	2009	2010	2011	2012	2013
Medical Only	7%	7%	5%	5%	5%
Essential (Plus) Plan	5%	5%	4%	4%	4%
Premium Plan	88%	88%	91%	91%	91%

Hazardous Plans Recommendation: Based upon recent experience, plan election rates have remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we propose to continue to assume that the distribution of plan elections observed on the valuation date will remain steady.

B. Retirement Health Care Participation Rates

Background: KRS requires individuals to contribute toward the cost of health care to maintain coverage based on service at retirement, Medicare eligibility and the coverage tier elected. Some eligible individuals may not elect to be covered, especially if they have coverage available through a spouse or previous employer. The rates of participation are based on experiential data, where available and credible. These rates are considered when selecting the participation assumption for future retirees, as well as the plan eligibility rules, plan choices and the change in retiree contribution rates over time.

Since plan participation may vary in the future due to anticipated retiree contribution levels and plan choices, the appropriateness of participation rates for both current and future retirees need to be considered. The availability to opt in and out of the plan at the time of open enrollment also needs to be considered.

Participation rates vary based on the level of benefit the member may receive, thus the participation rates vary based on the three membership tiers:

Tier 1: Members that began Participating Before September 1, 2008. This includes two sub-tiers; members that began participating prior to July 1, 2003, and members with a participation date between July 1, 2003 and August 31, 2008.

Tier 2: Members with a participation date on or after September 1, 2008, but before January 1, 2014.

Tier 3: Members with a participation date on or after January 1, 2014.

Tier 1: Members Participating Before July 1, 2003

KERS Non-Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	35%	30%	52%	45%	30%	90%	50%
10 – 14	67%	63%	53%	58%	62%	90%	75%
15 – 19	81%	78%	81%	79%	85%	90%	90%
20+	95%	92%	96%	94%	96%	90%	100%

KERS Non-Hazardous Recommendation: Historic participation levels suggest an increasing rate of participation as service at retirement increases. This is most likely because the level of subsidy increases as the service at retirement increases. As a result, the use of service based participation rates is proposed.

KERS Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	24%	0%	47%	30%	13%	100%	50%
10 – 14	58%	69%	73%	46%	58%	100%	75%
15 – 19	71%	76%	68%	77%	73%	100%	90%
20+	97%	98%	97%	95%	97%	100%	100%

KERS Hazardous Recommendation: Historic participation levels suggest an increasing rate of participation as service at retirement increases. This is most likely because the level of subsidy increases as the service at retirement increases. As a result, the use of service based participation rates is proposed.

CERS Non-Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	28%	27%	52%	26%	22%	85%	50%
10 – 14	51%	54%	54%	57%	54%	85%	75%
15 – 19	79%	83%	76%	79%	81%	85%	90%
20+	92%	94%	95%	94%	94%	85%	100%

CERS Non-Hazardous Recommendation: Historic participation levels suggest an increasing rate of participation as service at retirement increases. This is most likely because the level of subsidy increases as the service at retirement increases. As a result, the use of service based participation rates is proposed.

CERS Hazardous							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	20%	14%	67%	50%	0%	100%	50%
10 – 14	54%	50%	44%	65%	46%	100%	75%
15 – 19	73%	65%	77%	89%	82%	100%	90%
20+	94%	96%	97%	95%	97%	100%	100%

CERS Hazardous Recommendation: Historic participation levels suggest an increasing rate of participation as service at retirement increases. This is most likely because the level of subsidy increases as the service at retirement increases. As a result, the use of service based participation rates is proposed.

SPRS							
Percentage of Members Participating Before 7/1/2003 Electing Coverage							
Service at Retirement	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Under 10	100%	N/A	N/A	N/A	0%	100%	100%
10 – 14	N/A	N/A	100%	N/A	100%	100%	100%
15 – 19	0%	100%	100%	100%	100%	100%	100%
20+	58%	100%	97%	92%	100%	100%	100%

SPRS Recommendation: Historic participation levels support maintaining the current assumption of 100%.

<u>Tier 1 Members Participating Between 7/1/2003 and 9/1/2008</u>

Percentage of Members Participating Between 7/1/2003 and 9/1/2008 Electing Coverage		
System	Current	Proposed
KERS Non-Hazardous	100%	100%
KERS Hazardous	100%	100%
CERS Non-Hazardous	100%	100%
CERS Hazardous	100%	100%
SPRS	100%	100%

System Wide Recommendation: Participation rates for members that began participating between 7/1/2003 and 9/1/2008 will be studied with the next experience study since the very first time those members would be eligible to participate in health care would be 7/1/2013. The use of the current assumption is proposed until such experience can be studied.

<u>Tiers 2 & 3 Members Hired On or After 9/1/2008</u>

Percentage of Members Participating On or After 9/1/2008 Electing Coverage		
System	Current	Proposed
KERS Non-Hazardous	100%	100%
KERS Hazardous	100%	100%
CERS Non-Hazardous	100%	100%
CERS Hazardous	100%	100%
SPRS	100%	100%

System Wide Recommendation: Participation rates for members that began participating on and after 9/1/2008 will be studied in a future experience study once credible experience for these members has been studied. The use of the current assumption is proposed until such experience can be studied.

C. Duty-Disability Retirement Health Care Participation Rates for Tier 1 Members Hired Before 7/1/2003

Percentage of Members Participating Before 7/1/2003 Electing Coverage		
System	Current	Proposed
KERS Non-Hazardous	100%	100%
KERS Hazardous	100%	100%
CERS Non-Hazardous	100%	100%
CERS Hazardous	100%	100%
SPRS	100%	100%

System Wide Recommendation: Participation rates for members becoming disabled in the line of duty as a result of a duty related injury, regardless of actual service receive 100% of the health care benefit paid by KRS. The use of the current assumption is proposed due to the benefit level.

D. Duty Death-In-Service Health Care Participation Rates for Tier 1 Members Hired Before 7/1/2003

Percentage of Members Participating Before 7/1/2003 Electing Coverage		
System	Current	Proposed
KERS Non-Hazardous	100%	100%
KERS Hazardous	100%	100%
CERS Non-Hazardous	100%	100%
CERS Hazardous	100%	100%
SPRS	100%	100%

System Wide Recommendation: Participation rates for spouses and dependents of members that die in the line of duty, regardless of actual service receive 100% of the health care benefit paid by KRS. The use of the current assumption is proposed due to the benefit level.

E. Deferred Vested Member Health Care Participation Rates

Tier 1: Members Hired Before 7/1/2003

Background: For plans that require some form of contribution to maintain coverage, some eligible individuals that terminated with a vested benefit may not elect to be covered, particularly if they have other coverage available from their most recent employer. Empirical data on plan participation, where available and credible, should be considered when selecting the participation assumption for future covered retirees that retire from deferred vested status. When developing the participation rates, how plan eligibility rules, plan choices, or retiree contribution rates have changed over time should be considered.

Furthermore, plan participation may be different in the future due to participants' response to changes in retiree contribution levels and plan choices. For plans that anticipate changes in retiree contributions, the appropriateness of participation rates that vary over the projection period for both current and future retirees should be considered. Also, plan eligibility rules governing dropping coverage and subsequent re-enrollment when selecting participation rates should be considered.

KERS Non-Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	31%	27%	28%	45%	41%	90%	50%

KERS Non-Hazardous Recommendation: The percentage of deferred vested benefit recipients electing coverage has been lower than assumed over the last five years. As a result, we propose lowering the assumed rate of participation by current deferred vested who retire in the future to 50%.

KERS Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	50%	43%	36%	42%	25%	100%	50%

KERS Hazardous Recommendation: The percentage of deferred vested benefit recipients electing coverage has been lower than assumed over the last five years. As a result, we propose lowering the assumed rate of participation by current deferred vested who retire in the future to 50%.

CERS Non-Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	22%	27%	31%	38%	25%	85%	50%

CERS Non-Hazardous Recommendation: The percentage of deferred vested benefit recipients electing coverage has been lower than assumed over the last five years. As a result, we propose lowering the assumed rate of participation by current deferred vested who retire in the future to 50%.

CERS Hazardous							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	15%	14%	33%	33%	35%	100%	50%

CERS Hazardous Recommendation: The percentage of deferred vested benefit recipients electing coverage has been lower than assumed over the last five years. As a result, we propose lowering the assumed rate of participation by current deferred vested who retire in the future to 50%.

SPRS							
Deferred Vested Benefit Recipients Electing Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	0%	67%	100%	N/A	33%	100%	100%

SPRS Recommendation: The percentage of deferred vested benefit recipients electing coverage has been volatile over the last five years and the number of data points has been small. As a result, we propose retaining the current assumed rate of 100%.

Tier 1 Members Participating Between 7/1/2003 and 9/1/2008

Deferred Vested Benefit Recipients Electing Coverage		
System	Current	Proposed
KERS Non-Hazardous	100%	100%
KERS Hazardous	100%	100%
CERS Non-Hazardous	100%	100%
CERS Hazardous	100%	100%
SPRS	100%	100%

System Wide Recommendation: Participation rates for members that began participating between 7/1/2003 and 9/1/2008 will be studied with the next experience study since the very first time those members would be eligible to participate in health care would be 7/1/2013. The use of the current assumption is proposed until such experience can be studied.

Tiers 2 & 3 Members Hired On or After 9/1/2008

Deferred Vested Benefit Recipients Electing Coverage		
System	Current	Proposed
KERS Non-Hazardous	100%	100%
KERS Hazardous	100%	100%
CERS Non-Hazardous	100%	100%
CERS Hazardous	100%	100%
SPRS	100%	100%

System Wide Recommendation: Participation rates for members that began participating on and after 9/1/2008 will be studied in a future experience study once credible experience for these members has been studied. The use of the current assumption is proposed until such experience can be studied.

F. KRS Hazardous Divisions Spouse and Dependent Health Care Participation Rates

Background: Members eligible for coverage under the plan should be considered and appropriate assumptions should be made regarding the coverage of spouses and dependents. Additionally, the impact of plan rules regarding changes in coverage after retirement, such as remarriage, if significant should be considered.

KERS Hazardous							
Percentage of Covered Retirees Electing Spouse Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	42%	42%	44%	44%	44%	100%	50%

KERS Hazardous Recommendation: The percentage of those electing coverage for their spouses has remained steady over time and plan benefits and rules regarding dependent coverage are not anticipated to change. As a result, the use of the historic spouse coverage election average with a small margin for conservatism is proposed.

CERS Hazardous							
Percentage of Covered Retirees Electing Spouse Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	66%	67%	67%	68%	67%	100%	75%

CERS Hazardous Recommendation: The percentage of those electing coverage for their spouses has remained steady over time and plan benefits and rules regarding dependent coverage are not anticipated to change. As a result, the use of the historic spouse coverage election average with a small margin for conservatism is proposed.

SPRS							
Percentage of Covered Retirees Electing Spouse Coverage							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Percentage	65%	71%	72%	73%	72%	100%	75%

SPRS Hazardous Recommendation: The percentage of those electing coverage for their spouses has remained steady over time and plan benefits and rules regarding dependent coverage are not anticipated to change. As a result, the use of the historic spouse coverage election average with a small margin for conservatism is proposed.

G. KRS Deferred Vested Benefit Recipients Initial Age of Benefit Receipt for Members

Tier 1: Members Participating Before 7/1/2003

Background: Although members may begin receiving their deferred vested benefits once meeting the age and service requirements for retirement eligibility, many members do not begin receiving benefits at the earliest eligibility date. For those members with deferred vested benefits, an average age in which health benefits are to begin must be assumed.

KERS Non-Hazardous			
Deferred Vested Benefit Recipients Initial Age of Benefit Receipt			
First Year of Benefit Receipt	Average Age	Current	Proposed
2009	58.4	55	55
2010	58.0		
2011	57.0		
2012	57.9		
2013	59.1		

KERS Non-Hazardous Recommendation: The average age of initial receipt has remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we recommend continued use of the current assumption.

KERS Hazardous			
Deferred Vested Benefit Recipients Initial Age of Benefit Receipt			
First Year of Benefit Receipt	Average Age	Current	Proposed
2009	51.2	50	50
2010	53.1		
2011	52.1		
2012	51.2		
2013	52.8		

KERS Hazardous Recommendation: The average age of initial receipt has remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we recommend continued use of the current assumption.

CERS Non-Hazardous			
Deferred Vested Benefit Recipients Initial Age of Benefit Receipt			
First Year of Benefit Receipt	Average Age	Current	Proposed
2009	57.2	55	55
2010	57.7		
2011	58.1		
2012	57.8		
2013	59.1		

CERS Non-Hazardous Recommendation: The average age of initial receipt has remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we recommend continued use of the current assumption.

CERS Hazardous			
Deferred Vested Benefit Recipients Initial Age of Benefit Receipt			
First Year of Benefit Receipt	Average Age	Current	Proposed
2009	47.45	50	50
2010	49.75		
2011	53.55		
2012	42.58		
2013	50.49		

CERS Hazardous Recommendation: The average age of initial receipt has remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we recommend continued use of the current assumption.

SPRS			
Deferred Vested Benefit Recipients Initial Age of Benefit Receipt			
First Year of Benefit Receipt	Average Age	Current	Proposed
2009	N/A	50	50
2010	46.97		
2011	51.08		
2012	N/A		
2013	45.66		

SPRS Recommendation: The average age of initial receipt has remained relatively steady over time and plan benefits and rules regarding coverage are not anticipated to change. As a result, we recommend continued use of the current assumption.

Tier 1 Members Participating Between 7/1/2003 and 9/1/2008

System	Current	Proposed
KERS Non-Hazardous	55	55
KERS Hazardous	50	50
CERS Non-Hazardous	55	55
CERS Hazardous	50	50
SPRS	50	50

System Wide Recommendation: The average age of initial receipt will be studied with the next experience study since the very first time those members would be eligible to participate in health care would be after 7/1/2013. The use of the current assumption is proposed until such experience can be studied.

Tier 3: Members Hired After 9/1/2008

System	Current	Proposed
KERS Non-Hazardous	60	60
KERS Hazardous	50	50
CERS Non-Hazardous	60	60
CERS Hazardous	50	50
SPRS	50	50

System Wide Recommendation: The average age of initial receipt will be studied in a future experience once credible experience for these members has been studied. The use of the current assumption is proposed until such experience can be studied.

H. KRS Hazardous Spouse and Dependent Age

Background: The actual data for the age of the covered spouse and dependents of retired participants is used. The spouse and dependents of an active employee today may not be the same spouse and dependents covered at retirement, therefore the actuary should generally select an assumed covered spouse age difference for purposes of projecting future spouse coverage and assumed dependents' ages for projecting dependent coverage.

KERS Hazardous							
Average Number of Years a Covered Male Spouse is Older than a Covered Female Spouse							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Average Years	3.60	3.42	3.55	3.46	3.39	3	3

KERS Hazardous Recommendation: The average age difference between covered male and female spouses has been slightly higher than assumed. We recommend maintaining the current assumption to remain consistent with the pension valuation.

CERS Hazardous							
Average Number of Years a Covered Male Spouse is Older than a Covered Female Spouse							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Average Years	3.74	3.78	3.71	3.76	3.79	3	3

CERS Hazardous Recommendation: The average age difference between covered male and female spouses has been slightly higher than assumed. We recommend maintaining the current assumption to remain consistent with the pension valuation.

SPRS							
Average Number of Years a Covered Male Spouse is Older than a Covered Female Spouse							
Valuation	6/30/2009	6/30/2010	6/30/2011	6/30/2012	6/30/2013	Current	Proposed
Average Years	4.04	4.31	4.25	4.35	4.40	3	3

SPRS Recommendation: The average age difference between covered male and female spouses has been slightly higher than assumed. We recommend maintaining the current assumption to remain consistent with the pension valuation.

KERS SUMMARY AND COST OF CHANGES

As a result of the experience investigation, we are recommending revised rates of withdrawal, disability, pre-retirement mortality, service retirement and salary increases for active members. When these proposed assumption changes are applied to the June 30, 2013 valuation, the results will change. The change in results represents the financial impact of adopting the proposed assumptions. The table below summarizes the financial impact.

Pension

	KERS Non-Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	3.48%	3.11%	3.11%
Expenses	0.65	0.65	0.65
UAAL	26.71	27.71	28.78
Total Employer Rate	30.84%	31.47%	32.54%
Actuarial accrued liability	$ 11,386,602,159	$ 11,716,235,034	$ 11,788,258,431
Actuarial value of assets	$ 2,636,122,849	$ 2,636,122,849	$ 2,636,122,849
UAAL	$ 8,750,479,310	$ 9,080,112,185	$ 9,152,135,582

	KERS Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	5.24%	6.23%	6.23%
Expenses	0.55	0.55	0.55
UAAL	10.58	11.44	12.49
Total Employer Rate	16.37%	18.22%	19.27%
Actuarial accrued liability	$ 783,980,594	$ 806,705,619	$ 824,433,293
Actuarial value of assets	$ 505,656,808	$ 505,656,808	$ 505,656,808
UAAL	$ 278,323,786	$ 301,048,811	$ 318,776,485

KERS Summary and Cost of Changes

Insurance

	KERS Non-Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	2.69%	2.28%	2.34%
Expenses	0.26	0.26	0.26
UAAL	4.98	5.26	5.67
Total Employer Rate	7.93%	7.80%	8.27%
Actuarial accrued liability	$2,128,754,134	$2,220,005,137	$2,299,035,118
Actuarial value of assets	$497,584,327	$497,584,327	$497,584,327
UAAL	$1,631,169,807	$1,722,420,810	$1,801,450,791

	KERS Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	9.27%	7.47%	7.76%
Expenses	0.14	0.14	0.14
UAAL	0.56	-0.75	-0.27
Total Employer Rate	9.97%	6.86%	7.63%
Actuarial accrued liability	$385,517,675	$351,110,059	$363,929,229
Actuarial value of assets	$370,774,403	$370,774,403	$370,774,403
UAAL	$14,743,272	-$19,664,344	-$6,845,174

CERS SUMMARY AND COST OF CHANGES

As a result of the experience investigation, we are recommending revised rates of withdrawal, disability, pre-retirement mortality, service retirement and salary increases for active members. When these proposed assumption changes are applied to the June 30, 2013 valuation, the results will change. The change in results represents the financial impact of adopting the proposed assumptions. The table below summarizes the financial impact.

Pension

	CERS Non-Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	3.56%	3.28%	3.27%
Expenses	0.79	0.79	0.79
UAAL	8.40	8.90	9.63
Total Employer Rate	12.75%	12.97%	13.69%
Actuarial accrued liability	$9,378,876,114	$9,603,889,054	$9,800,456,616
Actuarial value of assets	$5,637,094,485	$5,637,094,485	$5,637,094,485
UAAL	$3,741,781,629	$3,966,794,569	$4,163,362,131

	CERS Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	6.09%	3.27%	3.32%
Expenses	0.26	0.26	0.26
UAAL	14.38	14.77	16.05
Total Employer Rate	20.73%	18.30%	19.63%
Actuarial accrued liability	$3,124,205,593	$3,160,812,289	$3,234,447,553
Actuarial value of assets	$1,801,691,408	$1,801,691,408	$1,801,691,408
UAAL	$1,322,514,185	$1,359,120,881	$1,432,756,145

CERS Summary and Cost of Changes

Insurance

	CERS Non-Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	3.32%	2.64%	2.72%
Expenses	0.20	0.20	0.20
UAAL	1.83	1.90	2.19
Total Employer Rate	5.35%	4.74%	5.11%
Actuarial accrued liability	$ 2,443,894,100	$ 2,476,471,085	$ 2,574,442,904
Actuarial value of assets	$ 1,628,244,197	$ 1,628,244,197	$ 1,628,244,197
UAAL	$ 815,649,903	$ 848,226,888	$ 946,198,707

	CERS Hazardous		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	8.90%	6.26%	6.43%
Expenses	0.15	0.15	0.15
UAAL	5.92	5.09	5.82
Total Employer Rate	14.97%	11.50%	12.40%
Actuarial accrued liability	$ 1,437,332,817	$ 1,360,833,390	$ 1,412,656,525
Actuarial value of assets	$ 892,774,391	$ 892,774,391	$ 892,774,391
UAAL	$ 544,558,426	$ 468,058,999	$ 519,882,134

SPRS SUMMARY AND COST OF CHANGES

As a result of the experience investigation, we are recommending revised rates of withdrawal, disability, pre-retirement mortality, service retirement and salary increases for active members. When these proposed assumption changes are applied to the June 30, 2013 valuation, the results will change. The change in results represents the financial impact of adopting the proposed assumptions. The table below summarizes the financial impact.

Pension

	State Police		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	8.05%	8.69%	8.76%
Expenses	0.41	0.41	0.41
UAAL	45.44	47.55	50.74
Total Employer Rate	53.90%	56.65%	59.91%
Actuarial accrued liability	$651,580,654	$670,609,014	$685,816,016
Actuarial value of assets	$241,800,327	$241,800,327	$241,800,327
UAAL	$409,780,327	$428,808,687	$444,015,689

Insurance

	SPRS		
	Valuation 6/30/2013	Demographic Assumption Changes	All Assumption Changes
Employer Contribution Rate:			
Normal Cost Rate	11.91%	11.52%	11.95%
Expenses	0.41	0.41	0.41
UAAL	9.54	9.74	10.93
Total Employer Rate	21.86%	21.67%	23.29%
Actuarial accrued liability	$222,326,743	$224,116,167	$231,927,769
Actuarial value of assets	$136,321,060	$136,321,060	$136,321,060
UAAL	$86,005,683	$87,795,107	$95,606,709

ACTUARIAL METHODS

Actuarial valuations utilize methods to determine the liabilities, assets, and costs. While these are not like other assumptions that may change over time, an experience study is still a good opportunity to review these methods to see if they are still appropriate for systematically funding the promised benefits. Significant methods are described below.

Actuarial Cost Method: The cost method is used to allocate the present value of benefits between past service (actuarial accrued liability) and future service (normal cost). Currently the valuation uses the entry age normal cost method. This is the most widely used cost method of large public sector plans and has demonstrated the highest degree of stability as compared to alternative methods. We recommend no change in the use of this method.

Actuarial Value of Assets: The purpose of the asset smoothing is to dampen the impact that market volatility has on valuation results by spreading the unexpected market gains and losses over several years. Currently the System uses smoothing method that recognizes 20% of the difference between the market value of assets and the expected actuarial value of assets, based on the assumed rate of return. The actuarial value of assets cannot be less than 80% or more than 120% of market value. We recommend no change in the use of this method.

Amortization Method: The unfunded actuarial accrued liability is amortized using a level percentage of payroll method over the amortization period. The period is a fixed 30 year period, starting July 1, 2013. The payroll growth assumption is used to determine the percentage of payroll required over the remaining amortization period to fully amortize the unfunded liability. The current wage inflation assumption is being changed from 4.50% to 4.00%. We recommend the same change for the payroll growth assumption be made.

HISTORICAL JUNE CPI (U) INDEX

Year	CPI (U)	Year	CPI (U)
1960	29.60	1987	113.50
1961	29.80	1988	118.00
1962	30.20	1989	124.10
1963	30.60	1990	129.90
1964	31.00	1991	136.00
1965	31.60	1992	140.20
1966	32.40	1993	144.40
1967	33.30	1994	148.00
1968	34.70	1995	152.50
1969	36.60	1996	156.70
1970	38.80	1997	160.30
1971	40.60	1998	163.00
1972	41.70	1999	166.20
1973	44.20	2000	172.40
1974	49.00	2001	178.00
1975	53.60	2002	179.90
1976	56.80	2003	183.70
1977	60.70	2004	189.70
1978	65.20	2005	194.50
1979	72.30	2006	202.90
1980	82.70	2007	208.35
1981	90.60	2008	218.82
1982	97.00	2009	215.69
1983	99.50	2010	217.96
1984	103.70	2011	225.72
1985	107.60	2012	229.48
1986	109.50	2013	233.50

CAPITAL MARKET ASSUMPTIONS AND ASSET ALLOCATION

Rates of Real Return and Standard Deviation by Asset Class

Asset Class	Real Return	Standard Deviation
Combined Equity	5.40%	18.35%
Combined Fixed Income	1.50%	6.00%
Real Return (Diversified Inflation Strategies)	3.50%	11.50%
Real Estate	4.50%	12.50%
Absolute Return (Diversified Hedge Funds)	4.25%	9.75%
Private Equity	8.50%	29.00%
Cash Equivalent	-0.25%	3.00%

Asset Class Correlation Coefficients

	EQ	Fixed	RR	RE	AR	PE	CE
Comb. Eq.	1.00	0.00	0.74	0.31	0.69	0.74	-0.03
Comb. Fixed Inc.	0.00	1.00	0.23	-0.06	0.13	-0.18	0.27
Real Return	0.74	0.23	1.00	0.36	0.61	0.61	-0.02
Real Estate	0.31	-0.06	0.36	1.00	0.22	0.51	0.08
Absolute Return	0.69	0.13	0.61	0.22	1.00	0.62	0.22
Private Equity	0.74	-0.18	0.61	0.51	0.62	1.00	0.08
Cash Equivalent	-0.03	0.27	-0.02	0.08	0.22	0.08	1.00

Asset Allocation Targets

KERS

Asset Class	Non-Hazardous	Hazardous
Combined Equity	42%	44%
Combined Fixed Income	20%	19%
Real Return (Diversified Inflation Strategies)	10%	10%
Real Estate	3%	5%
Absolute Return (Diversified Hedge Funds)	10%	10%
Private Equity	10%	10%
Cash Equivalent	5%	2%

CERS

Asset Class	Non-Hazardous	Hazardous
Combined Equity	44%	44%
Combined Fixed Income	19%	19%
Real Return (Diversified Inflation Strategies)	10%	10%
Real Estate	5%	5%
Absolute Return (Diversified Hedge Funds)	10%	10%
Private Equity	10%	10%
Cash Equivalent	2%	2%

SPRS

Asset Class	Hazardous
Combined Equity	44%
Combined Fixed Income	18%
Real Return (Diversified Inflation Strategies)	10%
Real Estate	5%
Absolute Return (Diversified Hedge Funds)	10%
Private Equity	10%
Cash Equivalent	3%

SOCIAL SECURITY ADMINISTRATION WAGE INDEX

Year	Wage Index	Annual Increase	Year	Wage Index	Annual Increase
1957	$3,641.72		1985	$16,822.51	4.26%
1958	3,673.80	0.88%	1986	17,321.82	2.97
1959	3,855.80	4.95	1987	18,426.51	6.38
1960	4,007.12	3.92	1988	19,334.04	4.93
1961	4,086.76	1.99	1989	20,099.55	3.96
1962	4,291.40	5.01	1990	21,027.98	4.62
1963	4,396.64	2.45	1991	21,811.60	3.73
1964	4,576.32	4.09	1992	22,935.42	5.15
1965	4,658.72	1.80	1993	23,132.67	0.86
1966	4,938.36	6.00	1994	23,753.53	2.68
1967	5,213.44	5.57	1995	24,705.66	4.01
1968	5,571.76	6.87	1996	25,913.90	4.89
1969	5,893.76	5.78	1997	27,426.00	5.84
1970	6,186.24	4.96	1998	28,861.44	5.23
1971	6,497.08	5.02	1999	30,469.84	5.57
1972	7,133.80	9.80	2000	32,154.82	5.53
1973	7,580.16	6.26	2001	32,921.92	2.39
1974	8,030.76	5.94	2002	33,252.09	1.00
1975	8,630.92	7.47	2003	34,064.95	2.44
1976	9,226.48	6.90	2004	35,648.55	4.65
1977	9,779.44	5.99	2005	36,952.94	3.66
1978	10,556.03	7.94	2006	38,651.41	4.60
1979	11,479.46	8.75	2007	40,405.48	4.54
1980	12,513.46	9.01	2008	41,334.97	2.30
1981	13,773.10	10.07	2009	40,711.61	-1.51
1982	14,531.34	5.51	2010	41,673.83	2.36
1983	15,239.24	4.87	2011	42,979.61	3.13
1984	16,135.07	5.88	2012	44,321.67	3.12

KENTUCKY EMPLOYEES RETIREMENT SYSTEMS

SUMMARY OF ACTUARIAL ASSUMPTIONS

Economic Assumptions

Investment Return: 7.50% net of investment expenses per annum, compounded annually for Non Hazardous Members

7.50% net of investment expenses per annum, compounded annually for Hazardous Members

Salary Increases: Sample rates below:

Service Years	Non Hazardous Members % Increase	Hazardous Members % Increase
0 - 1	16.50	20.50
1 - 2	8.50	8.50
2 – 3	6.00	6.50
3 – 4	5.50	6.00
4 – 5	5.50	5.50
5 – 6	5.50	5.00
6 – 7	5.00	4.50
7 – 8	5.00	4.50
8 – 9	5.00	4.50
9+	4.50	4.50

Payroll Growth: 4.00% per year

KENTUCKY EMPLOYEES RETIREMENT SYSTEMS

Demographic Assumptions

Annual Rates of Retirement
Per 100 Eligible Members

	Non-Hazardous			Hazardous	
Age	Those Eligible For Service Retirement*	Those Eligible For Service Retirement**	Service	Those Eligible For Service Retirement+	Those Eligible For Service Retirement++
55	8		20	40	
56	8		21	40	
57	8		22	40	
58	8		23	40	
59	8		24	40	
60	10	10	25	47	40
61	20	20	26	47	40
62	20	20	27	47	40
63	20	20	28	47	40
64	20	20	29	47	40
65	20	25	30	47	47
66	20	25	31	47	47
67	20	25	32	50	47
68	20	25	33	50	47
69	20	25	34	50	47
70	20	25	35	60	47
71	20	25	36	60	47
72	20	25	37	60	50
73	20	25	38	60	50
74	20	25	39	60	50
75	100	100	40	60	60

** For members participating before 9/1/2008. If service is at least 27 years, the rate is 35%.*
*** For members participating on or after 9/1/2008. If age plus service is at least 87, the rate is 35%.*

+ For members participating before 9/1/2008. The annual rate of service retirement is 100% at age 65.
++ For members participating on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.
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KENTUCKY EMPLOYEES RETIREMENT SYSTEMS

Demographic Assumptions (continued)

Mortality Rates

Active participants	RP-2000 Combined Mortality Table projected to 2013 using Scale BB. The mortality rates were multiplied by 50% for females, and 30% for males.
Disabled pensioners	RP-2000 Combined Disabled Mortality Table projected to 2013 using Scale BB set back 4 years for males.
Retired Healthy pensioners	RP-2000 Combined Mortality Table projected to 2013 using Scale BB, set back one year for females.

Disability Rates: Graduated rates

Disabled rates per 100 members

	Non-Hazardous Members		Hazardous Members	
Nearest Age	Male	Female	Male	Female
20	0.02	0.02	0.03	0.03
30	0.03	0.03	0.05	0.05
40	0.07	0.07	0.10	0.10
50	0.19	0.19	0.28	0.28
60	0.49	0.49	0.73	0.73

KENTUCKY EMPLOYEES RETIREMENT SYSTEMS

Demographic Assumptions (continued)

Withdrawal Rates:

Service	Non Hazardous Rates of Termination	Hazardous Members Rates of Termination
0 – 1	0.2250	0.2500
1 – 2	0.1550	0.1050
2 – 3	0.1250	0.0750
3 – 4	0.1050	0.0650
4 – 5	0.0900	0.0550
5 – 6	0.0650	0.0450
6 – 7	0.0550	0.0300
7 – 8	0.0500	0.0300
8 – 9	0.0450	0.0300
9 – 10	0.0450	0.0250
10 – 11	0.0400	0.0250
11 – 12	0.0400	0.0200
12 – 13	0.0400	0.0200
13 – 14	0.0350	0.0200
14 – 15	0.0350	0.0200
15 +	0.0300	0.0200

Marital Status:

Percentage Married: 100%

Age difference: Males are assumed to be three years older than spouses.

Form of Payment: Participants are assumed to elect a life-only form of payment.

COUNTY EMPLOYEES RETIREMENT SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS

Economic Assumptions

Investment Return: 7.50% net of investment expenses per annum, compounded annually for Non Hazardous Members

7.50% net of investment expenses per annum, compounded annually for Hazardous Members

Salary Increases: Sample rates below:

Service Years	Non Hazardous Members % Increase	Hazardous Members % Increase
0 - 1	12.50	19.50
1 - 2	9.00	10.00
2 – 3	5.50	6.00
3 – 4	5.50	5.25
4 – 5	5.00	5.00
5 – 6	5.00	4.50
6 – 7	4.75	4.00
7 – 8	4.75	4.00
8 – 9	4.50	4.00
9 – 10	4.50	4.00
10 +	4.25	4.00

Payroll Growth: 4.00% per year

COUNTY EMPLOYEES RETIREMENT SYSTEM

Demographic Assumptions

Annual Rates of Retirement
Per 100 Eligible Members

	Non-Hazardous			Hazardous	
Age	Those Eligible For Service Retirement*	Those Eligible For Service Retirement**	Service	Those Eligible For Service Retirement+	Those Eligible For Service Retirement++
55	5		20	22.5	
56	6		21	22.5	
57	7		22	22.5	
58	7		23	22.5	
59	8		24	30.0	
60	9	9	25	33.0	22.5
61	15	15	26	33.0	22.5
62	18	18	27	36.0	22.5
63	18	18	28	39.0	22.5
64	18	18	29	55.0	30.0
65	18	18	30	33.0	33.0
66	18	18	31	33.0	33.0
67	18	18	32	50.0	36.0
68	18	18	33	40.0	39.0
69	18	18	34	40.0	55.0
70	18	18	35	40.0	33.0
71	18	18	36	40.0	33.0
72	18	18	37	40.0	50.0
73	18	18	38	40.0	40.0
74	18	18	39	40.0	40.0
75	100	100	40	40.0	40.0

** If service is at least 27 years, the rate is 30% for members participating before 9/1/2008.*
***If age plus service is at least 87, the rate is 30% for members participating on or after 9/1/2008.*

+ Applies to members participating before 9/1/2008. The annual rate of service retirement is 100% at age 62.
++ Applies to members participating on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.

COUNTY EMPLOYEES RETIREMENT SYSTEM

Demographic Assumptions (continued)

Mortality Rates

Active participants	RP-2000 Combined Mortality Table projected to 2013 using Scale BB. The mortality rates were multiplied by 50% for females, and 30% for males.
Disabled pensioners	RP-2000 Combined Disabled Mortality Table projected to 2013 using Scale BB set back 4 years for males.
Retired Healthy pensioners	RP-2000 Combined Mortality Table projected to 2013 using Scale BB, set back one year for females.

Disability Rates: Graduated rates

Disabled rates per 100 members

	Non-Hazardous Members		Hazardous Members	
Nearest Age	Male	Female	Male	Female
20	0.02	0.02	0.05	0.05
30	0.03	0.03	0.09	0.09
40	0.07	0.07	0.20	0.20
50	0.19	0.19	0.56	0.56
60	0.49	0.49	1.46	1.46

COUNTY EMPLOYEES RETIREMENT SYSTEM

Demographic Assumptions (continued)

Withdrawal Rates:

Service	Non Hazardous Rates of Termination	Hazardous Members Rates of Termination
0 – 1	0.2800	0.2050
1 – 2	0.1600	0.1300
2 – 3	0.1200	0.1050
3 – 4	0.1000	0.0900
4 – 5	0.0800	0.0800
5 – 6	0.0600	0.0700
6 – 7	0.0500	0.0700
7 – 8	0.0500	0.0600
8 – 9	0.0400	0.0600
9 – 10	0.0400	0.0600
10 – 11	0.0400	0.0600
11 – 12	0.0400	0.0600
12 – 13	0.0400	0.0600
13 – 14	0.0400	0.0600
14 – 15	0.0300	0.0600
15 +	0.0300	0.0600

Marital Status:

Percentage Married	100%
Age difference	Males are assumed to be three years older than spouses.

Form of Payment: Participants are assumed to elect a life-only form of payment.

STATE POLICE RETIREMENT SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS

Economic Assumptions

Investment Return: 7.50% net of investment expenses per annum, compounded annually

Salary Increases: Sample rates below:

Service Years	% Increase
0 - 1	16.50
1 - 2	11.50
2 – 3	9.50
3 – 4	8.50
4 – 5	7.50
5 – 6	6.50
6 – 7	6.00
7 – 8	6.00
8 – 9	5.00
9 – 10	4.50
10 +	4.00

Payroll Growth: 4.00% per year

STATE POLICE RETIREMENT SYSTEM

Demographic Assumptions

	Annual Rates of Retirement Per 100 Eligible Members	
Service	Those Eligible For Service Retirement+	Those Eligible For Service Retirement++
20	22	
21	22	
22	22	
23	28	
24	28	
25	28	22
26	28	22
27	28	22
28	44	28
29	44	28
30	44	28
31	58	28
32	58	28
33	58	44
34	58	44
35	58	44
36	58	58
37	58	58
38	58	58
39	58	58
40	58	58

+ For members whose participation began before 9/1/2008. The annual rate of service retirement is 100% at age 55.
++ For members whose participation began on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.

STATE POLICE RETIREMENT SYSTEM

Demographic Assumptions (continued)

Mortality Rates

Active participants	RP-2000 Combined Mortality Table projected to 2013 using Scale BB. The mortality rates were multiplied by 50% for females, and 30% for males.
Disabled pensioners	RP-2000 Combined Disabled Mortality Table projected to 2013 using Scale BB set back 4 years for males.
Retired Healthy pensioners	RP-2000 Combined Mortality Table projected to 2013 using Scale BB, set back one year for females.

Disability Rates: Graduated rates

Disabled rates per 100 members

Nearest Age	Male	Female
20	0.05	0.05
30	0.09	0.09
40	0.20	0.20
50	0.56	0.56
60	1.46	1.46

STATE POLICE RETIREMENT SYSTEM

Demographic Assumptions (continued)

Withdrawal Rates:

Service	State Police Members Rates of Termination
0 – 1	0.2000
1 – 2	0.0700
2 – 3	0.0300
3 – 4	0.0300
4 – 5	0.0300
5 – 6	0.0300
6 – 7	0.0300
7 – 8	0.0300
8 – 9	0.0300
9 – 10	0.0250
10 – 11	0.0250
11 – 12	0.0250
12 – 13	0.0250
13 – 14	0.0250
14 – 15	0.0250
15 +	0.0250

Marital Status:

Percentage Married	100%
Age difference	Males are assumed to be three years older than spouses.

Form of Payment: Participants are assumed to elect a life-only form of payment.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Proposed KRS Bylaws Amendments – August Committee Meetings

At the Board Retreat in October, a brief discussion was held about the possibility of amending the KRS Bylaws to change the dates of the quarterly meetings of the Investment Committee and the Audit Committee. Under the current bylaws, the Investment Committee's fourth quarter meeting is set for the first Tuesday of August and the Audit Committee's fourth quarter meeting is set for the first Thursday of August. The KRS Board does not hold its fourth quarter meeting until the second Thursday of September, more than a month later. It was thought by some members of the Board that the committee meetings should be held at a time that is closer to the Board meeting.

Attached you will find a redlined copy of the Board's bylaws which proposes to change the Investment Committee fourth quarter meeting to the fourth Tuesday of August and the Audit Committee fourth quarter meeting to the fourth Thursday of August.

RECOMMENDATION: The Executive Director has no recommendation on this issue.

KENTUCKY RETIREMENT SYSTEMS
BOARD OF TRUSTEES

STATEMENT OF BYLAWS AND COMMITTEE ORGANIZATION

Section 1.1 General Administration.

This Statement of Bylaws and Committee Organization of the Board of Trustees is adopted pursuant to the authority of KRS 61.645. The law shall control if any inconsistency exists between the law and this Statement of Bylaws and Committee Organization of the Board of Trustees.

a. **BOARD YEAR.** The Board Year shall be from April 1 of each calendar year through March 31 of the following year.

b. **QUORUM; PARLIAMENTARY AUTHORITY.** As required by KRS 61.645(8)(c), a majority of the trustees on the board or any committee shall constitute a quorum, for transaction of business and all actions taken by the board or any committee shall be by affirmative vote of a majority of the trustees present and constituting a quorum. The most recent edition of Robert's Rules of Order shall be the parliamentary authority.

c. **MEETINGS.** Meetings of the Board and Committees will be conducted consistent with the Open Meetings Act, KRS 61.805 to 61.850. The Open Meetings Act shall control if any inconsistency exists between the Open Meetings Act and these bylaws.

d. **ANNUAL MEETING.** The annual meeting of the Board shall be held on the third Thursday of each Board Year.

e. **REGULAR QUARTERLY MEETINGS.** The regular quarterly meetings shall be held on the third Thursday of February and May, the second Thursday of September, and on the first Thursday of December.

f. **SPECIAL MEETINGS.**

1. Special meetings of the Board of Trustees shall be held upon the call of the Chair of the Board of Trustees or the Executive Director. Upon the request of a majority of the members of the Board, the Chair of the Board of Trustees or Executive Director may call a special meeting.

2. Special meetings of a Standing or *Ad hoc* Committee of the Board of Trustees shall be held upon the call of the Committee Chair or the Executive Director. Upon the request of a majority of the members of the Standing or *Ad hoc*

Committee, the Committee Chair or Executive Director may call a special meeting.

3. Notice of a special meeting of the board or a Standing or *Ad hoc* committee shall be posted as soon as practicable, but at least twenty-four hours (24) before the meeting is scheduled. The notice of a special meeting shall include the date, time, and location of the special meeting and the agenda for the special meeting.

g. NOTICE OF MEETINGS. Members of the Board and committees shall be given written and/or email notice of the time and place of each regular or special meeting and of the business to be considered at least ten (10) days prior to such meeting, except that when circumstances warrant a special meeting of the Board or a committee, such notice shall be given as soon as reasonably possible, but not less than twenty-four (24) hours prior to the special meeting.

h. RECORDS OF PROCEEDINGS. All official acts of the Board shall be recorded in the minutes. The Executive Director shall cause the minutes to be transcribed and presented for approval or amendment at the next regular meeting. The minutes or a copy certified by the Chair and Executive Director shall be on file in the retirement office and open to public inspection.

i. CHANGE IN MEETING DATES. Any regular or special meeting of the Board may be changed by following the procedure prescribed in these Bylaws for calling special meetings.

j. CHAIR AND VICE CHAIR OF THE BOARD. The board shall elect a chair and a vice chair at each annual meeting to hold office for the ensuing Board Year or until their successors are elected. The chair shall not serve more than four (4) consecutive years as chair or vice-chair of the board. The vice-chair shall not serve more than four (4) consecutive years as chair or vice-chair of the board. A trustee who has served four (4) consecutive years as chair or vice-chair of the board may be elected chair or vice-chair of the board after an absence of two (2) years from the positions.

k. COMMITTEES. The Board may create Committees with such powers and duties as the Board may determine.

The Chair of the Board of Trustees, unless otherwise determined by the Board, shall name the members of each Committee. Committee members shall serve concurrently with the appointing Chair.

l. CONFLICTS OF INTEREST. Board members shall file a financial disclosure statement with the Executive Branch Ethics Commission by April 15 of each calendar year, or within thirty (30) days following departure from office as a member of the Board, or as otherwise provided by law.

m. TRAVEL POLICY GUIDELINES.

1. **1.** All travel for official business of Kentucky Retirement Systems must be done in accordance with the Kentucky Retirement Systems Travel Policy and Procedures adopted by the Board of Trustees.

2. **2.** No more than six (6) Board members may be passengers on the same airline flight. A maximum of two (2) senior staff members may be passengers on the same flight.

n. ELECTION POLICY GUIDELINES. All elections for elected members of the Board of Trustees of Kentucky Retirement Systems must be conducted in accordance with the provisions of KRS 61.645 and the Kentucky Retirement Systems Board of Trustees Election Policy and Procedures adopted by the Board.

o. VIOLATIONS OF BY-LAWS OR BOARD POLICIES. If a complaint is made that a member of the Board violated these by-laws or any policy approved by the Board, the Board shall follow the procedure found in the Conflict of Interest and Confidentiality Policy in investigating the complaint.

Section 1.2 Board Responsibilities.

a. The Board shall make bylaws.

b. The Board shall appoint an Executive Director and fix the Executive Director's salary.

c. The Board shall adopt a compensation and classification plan applicable to all KRS employees other than the Executive Director and the Chief Investment Officer. The Board shall authorize and instruct the Executive Director to cause the name, position and salary of each employee to be posted on the website of KRS and otherwise be subject to public review pursuant to Kentucky Revised Statutes 61.870 to 61.884. The Executive Director shall present a list of the salaries of the KRS executive staff, including: the Executive Director; Chief Officers; Deputy Chief Officers; Division Directors; Deputy Controller; Information Security Officer; General Counsel; and Assistant General Counsel to the Board at its regular quarterly meeting in September each year, unless the Board directs that the data be presented at a different time or more frequently.

d. The Board shall act on contracts for rental of office space, and professional services including but not limited to the auditor, actuary, legal counsel, medical examiners, and hearing officers.

e. The Board shall act on legislative and regulatory changes proposed by the staff of the retirement systems.

f. The Board shall ratify the audited financial statements.

g. The Board shall ratify the actions of its Committees.

h. The Board shall act on the recommendations of the actuary and shall adopt actuarial assumptions and contribution rates.

i. The Board shall adopt contribution rates toward medical insurance premiums.

j. The Board shall provide oversight concerning programs and services for members, retirees, beneficiaries, and participating employers.

k. The Board shall select candidates for each trustee ballot.

l. The Board, or individual members of the Board, should ordinarily refer all news media inquiries to the Executive Director and/or the KRS Board Chair and should not speak on behalf of the Board or KRS with the news media. However, nothing in this subsection is intended to prevent individual board members from speaking to the media concerning their actions and decisions as individual board members.

Section 1.3 Executive Director Responsibilities.

a. The Executive Director shall appoint all staff to all positions in the retirement systems, and shall manage the staff to perform all administrative functions of Kentucky Retirement Systems.

b. The Executive Director shall develop a biennial budget and necessary budget amendments.

c. The Executive Director shall be responsible for information and record management, and shall develop and maintain a disaster recovery plan.

d. The Executive Director shall establish and implement policies in conformance with statutes, regulations and Board policies related to benefits administration.

e. The Executive Director shall provide oversight of litigation and report significant developments to the Board.

f. The Executive Director shall act as legislative liaison, and represent the Board at legislative hearings and other legislative meetings.

g. The Executive Director shall oversee the administrative appeals and disability appeals hearing process.

h. The Executive Director shall recommend legislative or regulatory changes and propose draft language.

i. The Executive Director shall provide technical assistance to the members of General Assembly, Governor's office, state and local government officials, members, retirees, and beneficiaries of the retirement systems.

j. The Executive Director shall communicate with the mass media and other agencies, entities or institutions, including responding to correspondence or inquiries addressed to the Board.

k. The Executive Director shall implement any statutory or regulatory changes and take appropriate action to conform with federal law.

l. The Executive Director shall coordinate reciprocal benefits with the other state administered retirement systems in Kentucky.

m. The Executive Director shall present a list of the salaries of the KRS executive staff, including: the Executive Director; Chief Officers; Deputy Chief Officers; Division Directors; Deputy Controller; Information Security Officer; General Counsel; and Assistant General Counsel to the Board at its regular quarterly meeting in September each year, unless the Board directs that the data be presented at a different time or more frequently.

n. The Executive Director shall present a budget-to-actual expenditure analysis to the Board at each quarterly meeting of the Board.

Section 2.1 Standing Committees.

The Board shall have the Standing Committees specified in Section 2.2, each of them to have the duties and responsibilities as therein set forth, together with such other duties and responsibilities as the Board may by resolution determine. In each Board Year, the Chair, elected at the annual meeting, shall appoint Board members to Committees as specified in Section 2.2, unless otherwise determined by the Board. Each committee shall have a Chair and the Board Chair shall appoint the Chair of each Committee, unless otherwise determined by the board. A Committee may (but is not required to) elect a Vice Chair from among its members by a majority vote of its membership. A Vice Chair so elected shall preside at meetings of the Committee in the absence or inability to act of the Committee Chair. Any Board member may attend any meeting of any Committee of which he or she is not a member but shall not have a vote.

Section 2.2 Committee Duties and Responsibilities.

The Standing Committees of the Board are, and shall have respective duties and responsibilities, as follows:

a. Administrative Appeals Committees. There shall be two (2) Administrative Appeals Committees, which may be combined with the Disability Appeals

Committees. Consistent with the provisions of KRS Chapter 13B, the Committees shall meet in alternate months, as needed, to act in matters of administrative appeals. Each Committee shall consist of three (3) members; however, the members appointed to one committee may also serve from time to time on the other committee. The Committees shall ensure that the retirement laws are administered impartially and uniformly and that the actions of the retirement system resulting in the appeal were correct and fair under the applicable statutes and regulations.

1. **Committee Responsibilities.** In matters of administrative appeals, the Committee members shall consider the administrative record including the recommended order and any exceptions filed and it may adopt the hearing officer's recommended order, or it may reject or modify, in whole or in part, the recommended order, or it may remand the matter, in whole or in part, to the hearing officer for further proceedings as appropriate. The Committee may also recommend legislative changes to improve the administration of the benefits. Any recommended legislative changes shall be referred to the Legislative and Budget Committee for study.

2. **Chief Benefits Officer Responsibilities.** The Chief Benefits Officer or designated staff will coordinate meeting dates and determine which cases will be reviewed. Staff will compile the administrative records and distribute the files to the Committee members prior to each meeting. Staff may provide legal or technical advice to the Committee.

b. **Audit Committee.** The Committee shall consist of a maximum of seven (7) members and will act on behalf of the Board in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, the internal and external audit processes, and the process for monitoring compliance with laws, regulations and the code of conduct.

1. **Committee Responsibilities.** The Committee will meet quarterly, with authority to convene additional meetings, as circumstances require. The regular quarterly meetings shall be held on the first Thursday of February~~,~~ and May, the fourth Thursday in August, and the first Thursday November. The committee shall have the authority to review reports by the Internal Auditor and to recommend appropriate policies and procedures. Additional responsibilities are enumerated in the Audit Committee Charter of the Board of Trustees.

2. **Internal Auditor Responsibilities.** The Internal Auditor will be responsible for the planning, implementation and reporting of audits and the internal audit plan. The Internal Auditor will also be responsible for the functional control of audit activities in relation to the objectives of the Division of Internal Audit. Additional responsibilities are enumerated in the Division of Internal Audit Charter.

3. **Audit Charters.** The Audit Committee Charter of the Board of Trustees and the Division of Internal Audit Charter are hereby incorporated by reference.

c. **Disability Appeals Committees.** There shall be two (2) Disability Appeals Committees, which may be combined with the Administrative Appeals Committees. Consistent with the provisions of KRS Chapter 13B, the Committees shall meet in alternate months, as needed, to act in matters of disability appeals. Each Committee shall consist of three (3) members; however the members appointed to one committee may serve from time to time on the other committee. The Committees shall ensure that the disability retirement laws are administered impartially and uniformly and that all members who apply for disability retirement benefits, and who qualify under the applicable statutes, are approved for benefits.

   1. **Committee Responsibilities.** In matters of disability appeals the Committee members shall consider the administrative record including the recommended order and any exceptions filed and it may adopt the hearing officer's recommended order, or it may reject or modify, in whole or in part, the recommended order, or it may remand the matter, in whole or in part, to the hearing officer for further proceedings as appropriate. The Committee may also recommend legislative changes to improve the administration of the benefits. Any recommended legislative changes shall be referred to the Legislative and Budget Committee for study.

   2. **Chief Benefits Officer Responsibilities.** The Chief Benefits Officer or designated staff will coordinate meeting dates and determine which cases will be reviewed. Staff will compile the administrative records and distribute the files to the Committee members prior to each meeting. Staff may provide legal or technical advice to the Committee.

d. **Investment Committee.** The Committee shall consist of a maximum of five (5) members and will act on behalf of the Board on investment related matters to assure the prudent investment of the retirement systems' assets to achieve the long-term funding goals established in the Board's Statement of Investment Policy.

   1. **Committee Responsibilities.** The Committee will meet quarterly to review reports from investment staff, investment consultants and investment managers with authority to convene additional meetings, as circumstances require. The regular quarterly meetings shall be held on the first Tuesday of February~~,~~ and May, the fourth Tuesday of ~~and~~ August, and the first Wednesday of November. The Committee will monitor investment performance and management practices and make reports and recommendations to the Board. The Committee will approve the selection and termination of service providers. The Committee will evaluate whether the policy, the investment activities, and management controls and processes continue to be consistent with meeting the retirement systems' goals and perform other duties specified in the Statement of Investment Policy. The Committee may also recommend legislative changes to improve the administration of investment related matters. Any recommended legislative changes shall be referred to the Legislative and Budget Committee for study.

2. **Chief Investment Officer Responsibilities.** The Chief Investment Officer ("CIO") will administer the assets of the retirement systems consistent with the policies, guidelines and limits established by the law, and the Statement of Investment Policy and the Investment Committee. The CIO will provide members of the Committee with assessments of service providers and performance reports. The CIO will identify issues for consideration by the Investment Committee and prepare recommendations regarding those issues. The CIO will recommend changes to service providers, statutes, policies or guidelines as needed to maintain a productive relationship between the investment program and its goals. The CIO will communicate with the mass media and other agencies, entities or institutions regarding investment related issues.

3. **Investment Policy.** The Statement of Investment Policy: Insurance Fund and The Statement of Investment Policy: Pension Funds are hereby incorporated by reference.

e. **Legislative and Budget Committee.** The Legislative and Budget Committee shall consist of a maximum of seven (7) members and shall review the retirement systems administrative budget and recommend additions or reductions in specific program areas or budgetary items. The Committee reviews and recommends statutory changes to the Board related to the administration of benefits and compliance with federal law and determines which changes are in the best interests of the retirement systems.

1. **Committee Responsibilities.** The Committee will meet only as necessary. Meetings may be called as set forth in Section 1.1(f) of these bylaws. The Committee shall have the authority to review budget recommendations and legislative recommendations of members of the Board, staff or others. The Committee may approve, reject and modify changes, as well as provide policy guidance for staff in drafting changes. The Committee will present the final recommendations to the Board.

2. **Executive Director Responsibilities.** The Executive Director will schedule meetings, prepare the budget document and supporting schedules, prepare draft changes to Kentucky Revised Statutes and present them to Committee members prior to the date of a meeting. Staff will research the impact of proposed changes and report the results to the Committee. Staff will also make preliminary contacts with legislators, employers and interest groups to assist in formulating legislation to accommodate all interested parties. Staff will work with the General Assembly, Legislative Research Commission, the Governor's Office and interest groups to obtain passage of the Board's legislative proposals, or advocate other interests supported by the Board.

f. **Human Resources Committee.** The Committee shall consist of a maximum of five (5) members and shall assist the Executive Director and the Board of Trustees in attracting and retaining a competent, creative and motivated workforce.

1. **Committee Responsibilities.** The Committee shall meet on the third Thursday of February and May, the second Thursday of September, and the first Thursday of December with authority to convene additional meetings, as circumstances require. The Committee recommends personnel policies to the Board. The Committee reviews and recommends salaries for executive staff based on comparable salaries and job performance. The Committee shall ensure the provisions enumerated in KRS 61.645 (9) are administered in a fair and equitable manner. The provisions of KRS 61.645(9) are herein incorporated by reference. The Committee may also recommend legislative changes to improve the administration of the personnel system. Any recommended legislative changes shall be referred to the Legislative and Budget Committee for study.

2. **Executive Director Responsibilities.** The Executive Director and his staff will maintain and provide the Committee with data on salaries of comparable positions in comparable businesses or similarly structured retirement systems. Staff will identify issues for consideration by the Committee and prepare recommendations regarding those issues.

g. **Retiree Health Plan Committee.** The Committee shall consist of a maximum of seven (7) members and shall assist the Board in providing a group hospital and medical insurance plan for present and future recipients of a retirement allowance from KERS, CERS, and SPRS as required by KRS 61.702.

1. **Committee Responsibilities.** The Committee will meet quarterly to review reports from retirement staff and retiree health insurance consultants with authority to convene additional meetings, as circumstances require. The regular quarterly meetings shall be held on the second Tuesday of February and May, the first Thursday of September, and the second Tuesday of November. The Committee will monitor retiree health insurance matters and make reports and recommendations to the Board. The Committee will evaluate retiree health insurance issues and obligations set forth in state and federal law. The Committee may, as deemed necessary, evaluate health insurance companies, health maintenance organizations, self-insurance proposals, and other ways of providing a group hospital and medical insurance plan for retirees as provided in KRS 61.702. The Committee may negotiate and recommend appropriate contracts for execution by the Board. The Committee may solicit reports and actuarial analyses in order to analyze issues regarding retiree health insurance. The Committee may also recommend legislative changes to improve the administration of retiree health insurance related matters. Any recommended legislative changes shall be referred to the Legislative and Budget Committee for study.

2. **Executive Director Responsibilities.** The Executive Director and his staff will maintain and provide the Committee with necessary information to execute its responsibilities. The Executive Director and his staff will provide advice

regarding state and federal laws and regulations. Staff will identify issues for consideration by the Committee and prepare recommendations regarding those issues.

h. In addition to the duties and responsibilities described in Section 2.2, each Standing Committee may develop appropriate policies and proposals to be ratified by the Board.

Section 2.3 Delegations of Authority by the Board.

a. Except as may be prohibited by or inconsistent with law, the Board may delegate to any Standing Committee of the Board any power, authority, duty or responsibility conferred on the Board by law. In the case of any such delegation, the decision or action of the Committee within the scope of its delegated authority shall constitute the decision or action of the Board. The Board may at any time rescind the delegated authority as a whole or in part, except that a rescission of authority with respect to quasi-judicial matters delegated to a Committee shall not operate to affect the proceedings or the final action of any such matter pending before the Committee when the Board acts to rescind. This exception is designed to preclude the Board from using its authority to rescind a delegation to interfere with the process or outcome of a quasi-judicial proceeding then in progress before a Committee which had properly commenced the proceeding within the scope of its authority.

b. Request for Proposal (RFP) Process.

1. The Standing Committee charged with oversight of the area germane to the RFP shall ensure that the most appropriate vendors are chosen to provide services to the retirement systems consistent with the “Kentucky Retirement Systems Procurement Policy.” The Standing Committee will review and make recommendations for appropriate vendors during its regularly scheduled meeting or at a special meeting if necessary.

2. The Chair shall appoint a RFP Committee as needed to review and make recommendations regarding RFPs that are not within an area germane to a Standing Committee. The RFP Committee will not have regular meetings, but will meet as a Special Meeting at the call of the Executive Director or the Chair.

3. **Staff Responsibilities.** Staff will solicit and screen responses for eligibility and completeness. Staff will conduct any preliminary due diligence necessary to assist in the screening of responses and the selection of the finalists presented for consideration by the Committee.

Section 2.4 *Ad hoc* Committees.

In addition to the Standing Committees specified in Section 2.2, the Chair or the Board may at any time establish an *ad hoc* Committee of the Board and fix its duties and responsibilities for any purpose which in the judgment of the Chair or the Board is better served by a temporary rather than Standing Committee. Each such Committee shall consist of such number of members as the Chair shall determine, and the Chair shall also then appoint the chair and designate the other members of the Committee unless otherwise determined by the Board.

Section 2.5 Limitations on Authority.

No Committee shall have any power or authority, nor shall the Board delegate to it power or authority, as to any of the following:

a. The amendment or repeal of any Board resolution.

b. Action on other matters committed by Board resolution or by Kentucky law (including the common law of trusts respecting the delegation or the non-delegation of fiduciary responsibilities) to the Board under terms or provisions that make such action non-delegable.

Section 2.6 Amendment of Bylaws

These bylaws may be amended at any regular meeting of the KRS Board of Trustees by a vote of a majority of the entire membership of the Board.

Section 3.0 Certification of Statement of Bylaws and Committee Organization.

We, the Chair of the Board of Trustees and the Executive Director of the Kentucky Retirement Systems, do certify that this Statement of Bylaws and Committee Organization was approved by the Board on this the ~~5th~~ 4th Day of December ~~2013~~2014.

____

Randy Overstreet, Chair Date

____

William A. Thielen, Executive Director Date

KENTUCKY RETIREMENT SYSTEMS
INVESTMENTS

TO: Kentucky Retirement System Board of Trustees

FROM: David Peden, Chief Investment Officer

DATE: December 4, 2014

SUBJECT: Investment Committee Quarterly Report

The Investment Committee held its regularly scheduled meeting on November 5, 2014. The purpose of the meeting was to evaluate investment activities, program structure, management, controls, and performance results of the Pension and Insurance Funds, for the quarter ending September 30, 2014, along with various other subjects.

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

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

The Standing Quarterly Committee Topics, Potential Future Topics List, and an overview of the supplied articles of interest were reviewed. Questions were encouraged and addressed throughout the reports.

KRS Investment Staff and consultant RV Kuhns presented a Real Asset investment recommendation to the investment committee. Nuveen Real Asset Income Fund presented to the committee and was approved by the investment committee for an initial investment of two percent of the Pension and Insurance Funds. At the time of the recommendation, two percent of both the Pension and Insurance Plans was roughly $310 million. This investment will be structured as a separate account with Nuveen and no placement agent was used to source this investment. All five pension systems and insurance systems will participate in this investment.

KRS Investment Staff and consultant PCA recommended a capital commitment of $60 million to BDCM Opportunity Fund IV, L.P. a debt focused limited partnership managed by Black Diamond

Capital Management. This investment was approved by the investment committee. All Pension systems except for KERS Non-Hazardous and all five insurance systems will participate in this investment. No placement agents were used to source this investment; however, Black Diamond does use the services of a third party marketing firm. This firm will not be paid based on KRS' investment.

KRS Investment Staff and consultant PCA recommended a capital commitment of $40 million to Ares Special Situations Fund IV, L.P. a debt focused limited partnership managed by Ares Management, L.P. This investment was approved by the investment committee. All Pension systems except for KERS Non-Hazardous and all five insurance systems will participate in this investment. No placement agents were used to source this investment.

Brent Aldridge, Director of Private Equity and consultant PCA presented the private equity annual manager reviews. Questions were encouraged and addressed throughout the report.

Consultant ORG presented the Real Estate annual manager reviews. Questions were encouraged and addressed throughout the report.

Consultant ORG presented an educational on real estate co-investments and potential ways to structure a co-investment program. Questions were encouraged and addressed throughout the report.

Consultant RV Kuhns presented the Fixed Income annual manager reviews. Questions were encouraged and addressed throughout the report.

David Peden, CIO, presented recommended policy changes to the Investment Policy Statement and the Investment Transaction Procedures Policy. All recommended changes and amendments as discussed in the investment committee meeting were approved by the investment committee.

Erica Bradley, Compliance Officer, Brian Thomas, General Counsel, and David Peden, CIO, presented recommended changes to the Personal Trading Policy. After a lengthy discussion where several questions were asked, no actions were taken and additional information was requested by the investment committee.

Please see the next page for a summary of the Pension and Insurance performance information ending September 30, 2014.

Pension Funds Performance Overview Rates of Return (%) as of September 30, 2014								
	One Year		Three Years		Five Years		Ten Years	
	Fund	Index	Fund	Index	Fund	Index	Fund	Index
Equity	9.67	10.78	16.46	16.93	10.34	10.86	7.04	6.94
Fixed Income	4.85	4.39	4.91	3.23	6.03	4.68	5.07	4.84
Private Equity	21.48	21.48	14.44	14.44	16.21	18.14	10.33	10.52
Real Estate	8.44	11.74	9.25	11.38	11.75	8.97	N/A	
Absolute Return	9.06	7.73	7.51	4.37	N/A		N/A	
Real Return	5.71	3.23	4.53	4.15	N/A		N/A	
Cash Equivalents	0.21	0.04	0.37	0.05	0.51	0.08	2.08	1.51
Total Fund	9.22	9.50	11.06	11.43	9.25	9.25	6.60	6.71

Insurance Funds Performance Overview Rates of Return (%) as of September 30, 2014								
	One Year		Three Years		Five Years		Ten Years	
	Fund	Index	Fund	Index	Fund	Index	Fund	Index
Equity	9.80	10.84	16.18	16.79	10.02	10.53	6.74	6.59
Fixed Income	4.15	4.39	4.70	3.23	5.85	5.23	5.34	5.01
Private Equity	21.42	21.42	14.30	14.30	16.58	18.21	9.49	10.02
Real Estate	11.26	11.74	8.58	11.38	12.53	8.97	N/A	
Absolute Return	8.99	7.73	7.47	4.37	N/A		N/A	
Real Return	5.21	3.13	4.05	4.11	N/A		N/A	
Cash Equivalents	0.21	0.04	0.30	0.05	0.28	0.08	1.90	1.51
Total Fund	8.52	9.59	10.35	11.46	8.83	9.76	6.22	6.51

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

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Legislative Update

The KRS Executive Director and General Counsel will report on legislative activity and expectations for the upcoming 2015 Regular Session of the Kentucky General Assembly at the meeting. Attached to this memorandum, you will find draft administrative and legislative recommendations made on November 24, 2014 by the Public Pension Oversight Board. Other materials, if any, related to the update will be provided at the meeting.

RECOMMENDATION: None. This update will be provided for information purposes only.

PPOB Recommendations Provided By Membership				
#	Type	Issue	PPOB Member(s) Making Recommendation	Recommendation
1	Administrative	Actuarial Audit	Sen. Bowen; Rep. Yonts	Kentucky Retirement Systems should engage an independent actuarial firm, different from their current actuarial firm, to perform an actuarial audit of the assumptions/funding methods and should report the findings to the KRS Board and the Public Pension Oversight Board.
2	Administrative	Actuarial Experience Study	Rep. Yonts	Relative to the actuarial experience study, the KRS board should: • Consider the results of any actuarial audit that is completed prior to the board's adoption of any specific assumption/method changes. • Evaluate the cash flow needs of the KERS non-hazardous pension fund as it relates to the assumptions/methods. • Move quickly on adoption to ensure a timely completion of the asset/liability modeling study and to ensure sufficient notice is provided to employers if any changes in employer contributions will result.
3	Administrative	KRS Board Mtg. Notifications	Sen. Bowen	KRS should take more action in publicizing KRS board meeting dates/times, including but not limited to: • Improving electronic communication regarding meetings via the KRS newsletter, website, and social media pages. • Distributing meeting times/dates electronically to employee, retiree, and interest groups.
4	Administrative	2015 PPOB Study Topics	Mac Jefferson Sen. Higdon Mac. Jefferson Sen. Higdon Sen. Higdon	In 2015, the Public Pension Oversight Board shall: • Receive quarterly cash flow statistics from KRS and shall study cash flow issues facing the systems; • Study KRS administrative expenses, approval process, and conduct national comparison; • Study investment oversight/structure of other public pension funds; • Study the personnel and compensation system of KRS; • Study and review data on other public pension funds as it relates to investment fees, expenses, and required disclosure.

5	Administrative	State Budget Preparation	Sen. Bowen	In developing the 2016-2018 executive branch budget for presentation in the 2016 Regular Session of the General Assembly, the Governor should include the actuarially required contribution rate as required by state statute for KERS and SPRS.
6	Legislative	KRS Housekeeping Bill	Sen. Bowen; Rep. Yonts	The Kentucky Retirement Systems housekeeping bill, similar to provisions included in House Bill 324 that did not pass during the 2014 Regular Session, should be enacted.
7	Legislative	Pension "Spiking"	Sen. Bowen; Rep. Linder→ Rep. Yonts→	Two Recommendations Have Been Proposed Relative to Pension "Spiking": • Legislation to address pension "spiking" issues similar to the measures proposed in Senate Bill 142 from the 2014 Regular Session should be enacted. • Legislation to address pension "spiking" that retains the existing statutory language but raises the threshold for a pension "spike" from a 10% annual increase in creditable compensation during the last 5 years of employment to 15% should be enacted.
8	Legislative	Expand PPOB Duties	Sen. Bowen; Rep. Yonts; Rep. Linder	Legislation to include the Kentucky Teachers' Retirement System, the Legislators' Retirement Plan, and the Judicial Retirement Plan to the oversight duties of the Public Pension Oversight Board (similar to the measures proposed in House Bill 323 from the 2014 Regular Session) should be enacted.
9	Legislative	Actuarial Reporting Requirements	Sen. Bowen; Rep. Yonts; Mac. Jefferson	Legislation that requires each of the state-administered retirement systems to conduct an actuarial experience study once every 5 years (similar to HB 389 from the 2014 Regular Session) should be enacted and the analysis should be conducted by a different actuary than the actuary completing the annual valuation.
10	Legislative	Pension Funding	Sen. Higdon	The General Assembly should secure additional funding to avert any insolvency issues facing the Kentucky Employees Retirement System pension fund.

11	Legislative	Pension Funding	Sen. Bowen; Rep. Yonts	The Public Pension Oversight Board supports measures that would provide additional funding to improve the financial health of the systems administered by Kentucky Retirement Systems and in particular measures that would improve the cash flow issues facing the Kentucky Employees Retirement System non-hazardous pension fund.
12	Legislative	Agency Participation Issues	Sen. Bowen; Rep. Yonts	Legislation to address KRS agency participation issues that includes measures for voluntary and involuntary cessation of participation (similar to SB 216 from the 2014 Regular Session), should be enacted.
13	Legislative	Annual Actuarial Valuation	Mac Jefferson; Rep. Yonts; Sen. Bowen	Legislation to require KRS to incorporate sensitivity analysis into their annual actuarial valuation on key assumptions and the impact on plan funding statistics and funding requirements should be enacted.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board of Trustees

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: KRS Administrative Budget-to-Actual Expenditure Update

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

- Total 2014-15 Annual Budget = $40.9 million

- Expenditures for the first fiscal year quarter totaled $8.0 million, which were $3.5 million better than plan.

- Salaries & Benefits were slightly over plan due to overtime expenses (Member Services & Technology business areas). All other categories were at or below budget targets.

- Additional information includes two ancillary reports showing the split out of Internal Audit and Investments.

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

KRS ADMINISTRATIVE BUDGET 2014-2015

FIRST QUARTER BUDGET-TO-ACTUAL ANALYSIS

As of September 30, 2014

Acct #	Account Name	Budgeted	Actual Expenditures	Remaining	% Remaining
	PERSONNEL				
111	Salaries	$14,426,125	$4,126,963	$10,299,162	71%
120	Benefits	$8,842,352	$2,493,932	$6,348,420	72%
131	Workers Compensation	$34,000	$32,365	$1,635	5%
132	Unemployment	$10,000	$0	$10,000	100%
133	Tuition Assistance	$35,000	$7,254	$27,746	79%
133I	Investment Tuition Assistance	$5,000	$0	$5,000	100%
133T	Audit Tuition Assistance	$2,500	$0	$2,500	100%
135	Bonds	$3,000	$0	$3,000	100%
141	**LEGAL & AUDITING SERVICES**				
141A	Legal Hearing Officers	$344,000	$63,259	$280,741	82%
141B	Legal (Stoll, Keenon)	$225,000	$18,970	$206,030	92%
141C	Polsinelli Shugart	$100,000	$0	$100,000	100%
141E	Reinhart	$350,000	$27,482	$322,518	92%
141F	Ice Miller	$1,200,000	($60,387)	$1,260,387	105%
142	Auditing	$70,000	$32,500	$37,500	54%
146	**CONSULTING SERVICES**				
146A	Medical Reviewers	$380,000	$88,560	$291,440	77%
146B	Medical Reports	$10,000	$16	$9,984	100%
146C	Medical Exams	$20,000	$5,211	$14,789	74%
150	**CONTRACTUAL SERVICES**				
150C	Miscellaneous Contracts	$205,000	$98,390	$106,610	52%
150D	Health Consultant	$125,000	$1,938	$123,063	98%
150E	Banking	$9,000	$0	$9,000	100%
150F	PBI	$9,000	$0	$9,000	100%
150G	Human Resources Consulting	$100,000	$0	$100,000	100%
150H	Health Insurance Admin Fee	$1,867,700	$517,261	$1,350,439	72%
150I	Investment Consulting	$1,600,000	$0	$1,600,000	100%
150J	Medical Claims TPA	$2,841,997	$0	$2,841,997	100%
150K	Pharmacy Claims TPA	$2,773,369	$0	$2,773,369	100%
159	Actuarial Services	$500,000	$15,092	$484,908	97%
162	Facility Security Charges	$3,000	$345	$2,656	89%
	PERSONNEL SUBTOTAL	**$36,091,043**	**$7,469,152**	**$28,621,891**	**79%**

FIRST QUARTER BUDGET-TO-ACTUAL ANALYSIS

As of September 30, 2014

Acct #	Account Name	Budgeted	Actual Expenditures	Remaining	% Remaining
	OPERATIONAL				
211	Natural Gas	$25,000	$443	$24,557	98%
212	Electric	$187,800	$37,118	$150,682	80%
221	Rent-NonState Building	$33,500	$8,172	$25,328	76%
222	Rent -State Owned Building	$686,300	$171,625	$514,675	75%
223	Equipment Rental	$5,000	$897	$4,103	82%
224	Copier Rental	$86,000	$10,006	$75,994	88%
226	Rental Carpool	$0	$0	$0	
232	Vehicle/Equip. Mainten.	$29,000	$0	$29,000	100%
241	Postage	$525,000	$16,324	$508,676	97%
242	Freight	$1,200	$191	$1,009	84%
251	Printing (State)	$1,000	$0	$1,000	100%
252	Printing (non-state)	$300,000	$0	$300,000	100%
254	Insurance	$81,300	$2,352	$78,948	97%
256	Garbage Collection	$12,300	$2,098	$10,202	83%
259	Conference Expense	$40,000	$1,894	$38,106	95%
259I	Conference Exp. Investment	$12,600	$2,517	$10,083	80%
259T	Conference Exp. Audit	$1,500	$450	$1,050	70%
300	MARS Usage	$25,000	$6,775	$18,225	73%
321	Office Supplies	$96,300	$5,924	$90,376	94%
331	Data Processing Supplies	$45,000	$2,203	$42,797	95%
343	Motor Fuels & Lubricants	$2,707	$615	$2,092	77%
346	Furniture & Office Equipment	$50,000	$2,617	$47,383	95%
361	Travel (In-State)	$109,000	$11,055	$97,945	90%
361I	Travel (In-State) Investment	$1,500	$0	$1,500	100%
361T	Travel (In-State) Audit	$500	$0	$500	100%
362	Travel (Out of State)	$40,000	$1,474	$38,526	96%
362I	Travel (Out of State) Invest	$51,050	$2,999	$48,051	94%
362T	Travel (Out of State) Audit	$2,500	$0	$2,500	100%
381	Dues & Subscriptions	$37,000	$7,999	$29,001	78%
381I	Dues & Subscriptions Invest	$42,000	$1,910	$40,090	95%
381T	Dues & Subscriptions Audit	$1,000	$0	$1,000	100%
399	Miscellaneous	$2,500	$2,815	($315)	-13%
399I	Miscellaneous Investment	$16,700	$334	$16,366	98%
399T	Miscellaneous Audit	$500	$15	$485	97%
601	Capital Outlay	$300,000	$0	$300,000	100%
802	COT Charges	$90,000	$4,914	$85,086	95%
814	Telephone - Wireless	$8,000	$780	$7,220	90%
815	Telephone - Other	$150,000	$17,970	$132,030	88%
847	Computer Equip./Software	$1,550,000	$183,979	$1,366,021	88%
847I	Comp. Equip./Software Invest	$190,000	$5,309	$184,691	97%
847T	Comp. Equip/Software Audit	$1,000	$0	$1,000	100%
	OPERATIONAL SUBTOTAL	**$4,839,757**	**$513,775**	**$4,325,982**	**89%**
	TOTALS	**$40,930,800**	**$7,982,926**	**$32,947,874**	**80%**

KRS ADMINISTRATIVE BUDGET 2014-15

INTERNAL AUDIT - FIRST QUARTER BUDGET-TO-ACTUAL ANALYSIS

As of September 30, 2014

Acc't #	Account Name	Budgeted	Actual Expense	Remaining	% Remaining
	PERSONNEL				
133T	Audit Tuition Assistance	$2,500	$0	$2,500	100%
	PERSONNEL SUBTOTAL	**$2,500**	**$0**	**$2,500**	**100%**
	OPERATIONAL				
259T	Conference Exp. Audit	$1,500	$450	$1,050	70%
361T	Travel (In-State) Audit	$500	$0	$500	100%
362T	Travel (Out of State) Audit	$2,500	$0	$2,500	100%
381T	Dues & Subscriptions Audit	$1,000	$0	$1,000	100%
399T	Miscellaneous Audit	$500	$15	$485	97%
847T	Comp. Equip/Software Audit	$1,000	$0	$1,000	100%
	OPERATIONAL SUBTOTAL	**$7,000**	**$465**	**$6,535**	**93%**
	TOTALS	**$9,500**	**$465**	**$9,035**	**95%**

INVESTMENT AUDIT - FIRST QUARTER BUDGET-TO-ACTUAL ANALYSIS

As of September 30, 2014

Acc't #	Account Name	Budgeted	Actual Expense	Remaining	% Remaining
	PERSONNEL				
133I	Investment Tuition Assistance	$5,000	$0	$5,000	100%
	CONTRACTUAL SERVICES				
141E	Reinhart	$350,000	$27,482		
150I	Investment Consulting	$1,600,000	$0	$1,600,000	100%
	PERSONNEL SUBTOTAL	**$1,955,000**	**$27,482**	**$1,605,000**	**82%**
	OPERATIONAL				
259I	Conference Exp. Investment	$12,600	$2,517	$10,083	80%
361I	Travel (In-State) Investment	$1,500	$0	$1,500	100%
362I	Travel (Out of State) Invest	$65,500	$2,999	$62,501	95%
381I	Dues & Subscriptions Invest	$42,000	$1,910	$40,090	95%
399I	Miscellaneous Investment	$16,700	$334	$16,366	98%
847I	Comp. Equip./Software Invest	$190,000	$5,309	$184,691	97%
	OPERATIONAL SUBTOTAL	**$328,300**	**$13,069**	**$315,231**	**96%**
	TOTALS	**$2,283,300**	**$40,551**	**$1,920,231**	**84%**

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Initial Retirement Cases, First Quarter, 14-15

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

DISTRIBUTION BY RETIREMENT MODE

MODE	KERS	CERS	SPRS	TOTAL	PERCENT
Normal Retirement	210	570	1	781	27.9%
Early Retirement	639	1154	32	1825	65.0%
Disability Retirement	27	69	0	96	3.4%
Retirement Eligible Refund	17	46	0	63	2.2%
Death of Members Eligible to Retire	12	29	0	41	1.5%
Grand Totals	905	1,868	33	2,806	100%

RETIREES WITH 27 OR MORE YEARS OF SERVICE

	KERS	CERS	SPRS	TOTAL
Under Normal Retirement Age	273	267	17	557
At and Over Normal Retirement Age	18	29	0	47
Grand Totals	291	296	17	604

RECOMMENDATION: This report is provided for informational purposes only.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Death Benefit Payments, First Quarter, 14-15

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

DEATH BENEFIT PAYMENTS

	Number of Deceased Retirees	Total Amount Paid
KERS	229	$1,145,000.00
CERS	354	$1,770,000.00
SPRS	8	$40,000.00
TOTALS	591	$2,955,000.00

RECOMMENDATION: This report is provided for informational purposes only.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Refund of Member Contributions for Quarter Ended September 30, 2014

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

There were 2,465 refunds totaling $11,208.676.95 paid to former members of the systems during the first quarter. Refund payments during the past (11) eleven quarters were as follows:

Quarter Ended	Amount	Number of Refunds
09/30/2014	$11,208,677	2,465
06/30/2014	$8,829,317	2,167
03/31/2014	$8,595,267	1,605
12/31/2013	$8,063,089	1,696
09/30/2013	$9,525.226	1,791
06/30/2013	$7,892,029	1,986
03/31/2013	$8,854,181	1,592
12/31/2012	$7,712,097	1,241
09/30/2012	$7,781,898	1,493
06/30/2012	$8,203,562	1,596
03/31/2012	$6,767,703	1,384

RECOMMENDATION: This report is provided for informational purposes only.

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Report of Decisions by the Medical Examiners

DISABILITY

During the first quarter of the fiscal year, the Medical Examiners reviewed a total of 208 applicants for disability retirement. There were 113 (54.33%) recommended for denial and 95 (45.67%) recommended for approval.

Approvals

KERS	CERS	SPRS	TOTAL
32	62	1	95

Duty Related Approvals

KERS	CERS	SPRS	TOTAL
0	0	0	0

Denials

KERS	CERS	SPRS	TOTAL
32	81	0	113

HAZARDOUS DISABILITY

During the first quarter of the fiscal year, the Medical Examiners reviewed a total of 7 applicants for hazardous disability retirement. There were 4 (57.14%) recommended for denial and 3 (42.86%) recommended for approval.

Approvals

KERS	CERS	SPRS	TOTAL
0	1	0	1

In the Line of Duty Approvals

KERS	CERS	SPRS	TOTAL
0	1	1	2

Total and Permanent Approvals

KERS	CERS	SPRS	TOTAL
0	0	0	0

ANNUAL REVIEW OF DISABILITY RECIPIENTS

During the first quarter of the fiscal year, the Medical Examiners made final decisions on a total of 227 annual reviews of disability recipients. The disability benefits of 222 recipients (97.80%) were continued and the disability benefits of 5 recipients (2.20%) were terminated.

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

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Disability Appeals Committee Quarterly Report

The Disability Appeals Committee held meetings on July 29, August 28 and September 29, 2014. A total of 36 disability claims were acted upon during the quarter resulting in 22 denials, 7 approvals, 4 dismissals and 3 remands.

Denials

KERS	CERS	SPRS
7	15	0

Approvals

KERS	CERS	SPRS
2	5	0

Dismissals

KERS	CERS	SPRS
2	2	0

Remands

KERS	CERS	SPRS
1	2	0

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

KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen
Executive Director

DATE: December 4, 2014

SUBJECT: Administrative Appeals Committee Quarterly Report

The Administrative Appeals Committee held meetings on July 29, August 28 and September 29, 2014. A total of 11 cases were acted upon in the quarter resulting in 5 continuances, 3 denials, 1 discontinuance and 2 dismissals.

Denials

KERS	CERS	SPRS
1	2	0

Continuances

KERS	CERS	SPRS
1	4	0

Discontinuances

KERS	CERS	SPRS
1	0	0

Reinstatements

KERS	CERS	SPRS
0	0	0

Remands

KERS	CERS	SPRS
0	0	0

Dismissals

KERS	CERS	SPRS
0	2	0

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

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KENTUCKY RETIREMENT SYSTEMS

TO: Members of the Board

FROM: William A. Thielen

DATE: December 4, 2014

SUBJECT: Participation of Additional Agencies and Hazardous Positions

PARTICIPATION—NONHAZARDOUS

There are no new agencies electing to participate with CERS at this time.

THE FOLLOWING AGENCIES ARE ASKING FOR HAZARDOUS DUTY COVERAGE ON POSITIONS FOR EMPLOYEES WHO HAVE A PARTICIPATION DATE PRIOR TO SEPTEMBER 1, 2008.

The City of Eddyville has requested hazardous duty coverage for the following positions with an effective date of December 1, 2014:

Police Chief **Police Lieutenant**
Police Sergeant **Police Detective**
Police Officer

There are five (5) employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaires and Job Descriptions.

The City of Nicholasville has requested hazardous duty coverage for the following position with an effective date of December 1, 2014:

Fire Marshall

There are no employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaire and Job Description.

The Franklin County Fiscal Court has requested hazardous duty coverage for the following position with an effective date of December 1, 2014:

Fire Engineer

There are no employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaires and Job Descriptions.

Louisville Metro Government has requested hazardous duty coverage for the following positions with an effective date of December 1, 2014:

Fire Recruit – 40 hour
Crime Scene Technician I
Crime Scene Technician Trainee

There are no employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaire and Job Description.

<u>HAZARDOUS POSITIONS</u> (FOR EMPLOYEES HIRED 9/1/08 OR AFTER)

The City of Eddyville has requested hazardous duty coverage for the following positions with an effective date of December 1, 2014:

Police Chief	**Police Lieutenant**
Police Sergeant	**Police Detective**
Police Officer	

There are no employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaires and Job Descriptions.

The City of Nicholasville has requested hazardous duty coverage for the following position with an effective date of **December 1, 2014**:

Fire Marshall

There are no employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaires and Job Descriptions

Louisville Metro Government has requested hazardous duty coverage for the following positions with an effective date of December 1, 2014:

Crime Scene Technician I **Crime Scene Technician Trainee**

There are no employees to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaire and Job Description

<u>HAZARDOUS POSITIONS</u> – KERS AGENCY

The Office of the Attorney General, Criminal Investigations has requested hazardous duty coverage for the following position with a **retroactive date of April 1, 2014:**

Deputy Commissioner

There is one (1) employee to be covered under hazardous duty at this time. Attached is a copy of the Position Questionnaire and Job Description.

RECOMMENDATION: The positions for which hazardous duty has been requested are presented for discussion.