

**Kentucky Public Pensions Authority  
Quarterly Board Meeting  
December 5, 2024 at 10:00 a.m. EST  
Live Video Conference/Facebook Live  
AGENDA**

- |  |                           |
|--|---------------------------|
| <b>1. Call to Order</b>  | <b>Jerry Powell</b>       |
| <b>2. Legal Opening Statement</b>  | <b>Legal Services</b>     |
| <b>3. Roll Call/Public Comment</b>   | <b>Sherry Rankin</b>      |
| <b>4. Approval of Minutes – September 26, 2024*</b>  | <b>Jerry Powell</b>       |
| <b>5. KPPA Audit Committee Report and Recommendations*</b>   | <b>Kristen Coffey</b>     |
| <b>a. Review of CERS and KRS approved Draft FY Ended June 30, 2024 External Audits, includes financial section of the Annual Report and GASB 67 and 74</b> | <b>Michael Lamb</b>       |
| <b>b. Discussion on Management Letter Comments</b>   | <b>Michael Lamb</b>       |
| <b>c. Review of Auditor Communications with those Charged with Governance</b>  | <b>Michael Lamb</b>       |
| <b>d. Approval for CERS and KRS Annual Comprehensive Financial Reports for publication*</b>  | <b>Michael Lamb</b>       |
| <b>e. DRAFT Management Response to FY 2023 GFOA ACFR Letter*</b>   | <b>Connie Davis</b>       |
| <b>f. Request for Infrastructure and Application Security Assessment*</b>  | <b>Dominique McKinley</b> |
| <b>g. Completed Internal Audits*</b>   | <b>Kristen Coffey</b>     |
| <b>6. Administrative Budget to Actual</b>  | <b>Michael Lamb</b>       |
| <b>7. Investment Department Update</b>   | <b>Steve Willer</b>       |
| <b>8. KPPA Executive Director Report</b>   | <b>Ryan Barrow</b>        |
| <b>9. New Business**</b>   | <b>Jerry Powell</b>       |
| <b>10. Closed Session**</b>  | <b>Jerry Powell</b>       |
| <b>11. Adjourn*</b>  | <b>Jerry Powell</b>       |

*\*Board Action Required*

*\*\*Board Action May Be Required*

**MINUTES OF MEETING  
KENTUCKY PUBLIC PENSIONS  
AUTHORITY  
QUARTERLY BOARD MEETING  
VIA LIVE VIDEO TELECONFERENCE  
SEPTMEBER 26, 2024, AT 10:00 AM EST**

At the meeting of the Kentucky Public Pensions Authority held on September 26, 2024, the following Members were present: Jerry Powell, Keith Percy, George Cheatham, Prewitt Lane, William O’Mara, Dr. Merl Hackbart, Lynn Hampton, and William Summers, V. Staff members present were KRS CEO John Chilton, CERS CEO Ed Owens, III, Ryan Barrow, Rebecca Adkins, Michael Board, Leigh Ann Davis, Victoria Hale, Steve Willer, Brian Caldwell, Michael Lamb, Connie Davis, Kristen Coffey, Jessica Beaubien, Carrie Bass, Shaun Case, Sandy Hardin, and Sherry Rankin.

1. Mr. Powell called the meeting to order.
2. Mr. Board read the Legal Opening Statement.
3. Ms. Rankin called roll.
4. Mr. Powell introduced agenda item **Public Comment** (Video 00:07:20 to 00:10:04). Ms. Rankin indicated that one public comment was received for this meeting from Andrew Parrish and read as follows:

*“Good afternoon! I hope this finds you all well and I appreciate your commitment to the Commonwealth and the employees whom you represent. I would like to briefly introduce myself. My name is A.J. Parrish and I currently serve as the night shift sergeant for the Paducah Police Department and have had the pleasure of working with this agency since I joined the force in May of 2014. I am writing this public comment to you all because I want to bring to light an issue with retention among law enforcement that you are likely all too familiar with. While this issue is affecting agencies nationwide, I want to focus on our issues*

*specifically here in Kentucky. Currently, the Commonwealth offers three Tiers for retirement, but I will focus on the one that is currently in effect as of January 1, 2014, which is Tier 3. Essentially, peace officers are no longer under a pension style retirement but rather a "401K". Unlike the other retirement Tiers prior to 2014, under Tier 3 the participant has the option to leave law enforcement and take their "401K" balance with them. Specifically, they are vested after 60 months (or 5 years) of employment. What this means is that instead of staying in law enforcement for 25 years, officers can now leave law enforcement at 5 years of service and go to work in the private sector with their "401K". This is causing a massive strain on law enforcement agencies across the commonwealth to retain seasoned, veteran officers. Instead, agencies are now forced to cycle through hiring young officers, send them to the academy to get trained and then hope that they will stay faithful to law enforcement for 25 years. While this seems grim, I do have a solution to this issue. In January, House Bill 143 was introduced which would afford Tier 3 participants the option of going to Tier 2. This would greatly benefit the safety and security of the communities within our Commonwealth by retaining law enforcement professionals for 25 years to reach full retirement under the pension system. I humbly request you take some time to fully research this issue and support the efforts to afford us the opportunity to go from a Tier 3 retirement system to Tier 2. I would be happy to discuss this issue further and can be reached via e-mail or phone at xxx-xxx-xxxx. Again, thank you for time and support in this matter."*

5. Mr. Powell introduced agenda item ***Approval of Minutes –KPPA Board for June 27, 2024, and August 23, 2024*** (Video 00:10:04 to 00:10:50). Ms. Hampton made a motion and was seconded by Mr. Cheatham to approve both minutes as presented. The motion passed unanimously.
  
6. Mr. Powell introduced agenda item ***KPPA Audit Committee Report*** (Video 00:10:50 to 00:13:35). Ms. Kristen Coffey presented the summary of the August 27, 2024, KPPA Audit Committee Meeting. Ms. Coffey reviewed the Audit Plan and gave an Internal Audit staffing update. Ms. Coffey also reported that for the fiscal year 2024, Internal Audit worked on 25 projects. Five (5) remained open on June 30, 2024; however, four (4) of these were closed in

July or August.

Next, Ms. Coffey noted the Internal Audit Committee reviewed and approved the Annual Risk Assessment and Audit Plan, and they also approved the internal audits that were completed since the prior Audit Committee.

Mr. Lane made a motion to ratify 1.a.) the Annual Risk Assessment and Audit Plan as approved by the Audit Committee and 1.b.) the acceptance of the issued internal audits/open audit findings and to authorize KPPA staff to implement any required corrective action, as approved by the Audit Committee. Dr. Hackbart seconded the motion, and the motion passed unanimously.

7. Mr. Powell introduced agenda item *Memo on Outstanding Employer Invoices* (Video 00:13:35 to 00:28:26). Mr. Mike Lamb presented the memo regarding interest on employer invoices. Mr. Lamb reviewed the findings and recommendations made by the KPPA team who researched available options for charging interest on delinquent employer contributions and employer past due invoices. From their extensive research, the KPPA legal staff created eight categories for evaluation. Mr. Lamb then discussed interest on delinquent employer contributions. Mr. Lamb presented four recommendations related to interest on delinquent employer contributions and employer past due invoices with one of the recommendations being to form a taskforce to continue to evaluate all open and outstanding invoices and report their findings to the CERS Finance Committee, the KRS Board, and the KPPA Board. Mr. Lamb, Ms. Coffey, and Ms. Rebecca Adkins answered questions.

Mr. Cheatham made a motion to adopt the recommendations relating to the interest on delinquent employer contributions and employer past invoices as presented. Mr. O'Mara seconded the motion, and the motion passed unanimously.

8. Mr. Powell introduced agenda item *Administrative Budget to Actual* (Video 00:28:26 to 00:34:19). Mr. Lamb presented the KPPA Administrative Budget-to-Actual Summary Analysis for the fiscal year ending June 30, 2024. Mr. Lamb pointed out the changes related

to the new ACFRs. Mr. Lamb also reviewed the JP Morgan Chase Credit Earnings and Fees for the fiscal year ending June 30, 2024.

\*\*\* *Mr. Summers left the meeting* \*\*\*

9. Mr. Powell introduced agenda item ***Investment Department Update*** (*Video 00:34:19 to 00:41:58*). Mr. Steve Willer, KPPA Chief Investment Officer, provided a detailed summary of the CERS and KRS Investment Committee meetings and the recommendations that were unanimously passed. Mr. Willer stated that the CERS Investment Committee held a Special Called Meeting on August 15, 2024. The KRS Investment Committee held a regularly scheduled meeting on August 21, 2024. No recommendations were made that required approval by the Investment Committees, and no actions were taken that required ratification by the CERS or KRS Boards of Trustees.

The County Employees Retirement System Investment Committee held a regularly scheduled meeting on August 28, 2024. The CERS Board of Trustees unanimously approved staff and Wilshire's recommendation to adopt the proposed Asset Class ranges for Section III Asset Allocation Guidelines of the CERS Investment Policy Statement with an effective start date of July 1, 2024.

The KRS Investment Committee held a Special Called Meeting on September 6, 2024. The KRS Board of Trustees unanimously approved staff's recommendation to invest up to \$35 million in the Strategic Value Partners Continuation Vehicle for Project Spurs subject to successful contract negotiations. This investment would be part of the Real Return asset allocation and would be allocated proportionally across all Pension and Insurance Portfolios.

The CERS Investment Committee held a Special Called Meeting on September 17, 2024, and the CERS Board of Trustees unanimously approved staff's recommendation to invest up to \$60 million in the Strategic Value Partners Continuation Vehicle for Project Spurs subject to successful contract negotiations. This investment would be part of the Real Return asset allocation and would be allocated proportionally across all Pension and Insurance Portfolios.

Mr. Willer then provided a detailed summary of the quarterly and fiscal year reports.

10. Mr. Powell introduced agenda item *Ad Hoc Regulations Committee Report* (Video 00:41:58 to 00:45:17).

a. Ms. Beaubien presented the amended administrative regulation 105 KAR 1:445, Trustee Elections with the Office of the Regulations Compiler at the Legislative Research Commission.

Mr. Peercy made a motion to approve the amendments to regulation 105 KAR 1:445 as presented, regarding Trustee Elections, and to authorize staff to file the amended regulation with the Office of Regulations Compiler at the Legislative Research Commission. Ms. Hampton seconded the motion, and the motion passed unanimously.

b. Next, Ms. Beaubien presented the amended regulation 105 KAR 1:130, Hazardous Position Coverage with the Office of the Regulations Compiler at the Legislative Research Commission.

Ms. Hampton made a motion to approve the amendments to regulation 105 KAR 1:130, as presented, regarding Hazardous Position Coverage and to authorize staff to file the amended regulation with the Office of Regulations Compiler at the Legislative Research Commission. Mr. Peercy seconded the motion, and the motion passed unanimously.

11. Mr. Powell introduced agenda item *KPPA Meeting Calendar 2025* (Video 00:45:17 to 00:48:13). Mr. Powell then presented the drafted 2025 KPPA Board and Committee Meeting Calendar.

Mr. Peercy made a motion to approve the 2025 KPPA Board and Committee Meeting Calendar as recommended. Ms. Hampton seconded the motion, and the motion passed unanimously.

12. Mr. Powell introduced agenda item **KPPA Update** (Video 00:48:13 to 0052:35). Mr. Barrow provided a written KPPA Update. Mr. Barrow reviewed highlights from his meetings with Fitch Ratings in August and Moody's Investors Service in September. On September 18, Moody's upgraded the Commonwealth of Kentucky's issuer rating to Aa2 from Aa3 and revised the outlook to stable from positive. Mr. Barrow also reported that on August 27, he and Erin Surratt presented at the Public Pension Oversight Board (PPOB) meeting and provided an overview of the Investment Returns, Asset Allocations, and Cash Flows as of June 30.
13. Mr. Powell introduced agenda item **New Business** (Video 0:52:35 to 00:52:53). Mr. Powell called for additional business, and none was brought forth.
14. Mr. Powell introduced agenda item **Closed Session** (Video 00:52:53 to 00:54:11). Mr. Prewitt made a motion and was seconded by Ms. Hampton to enter closed session to discuss pending litigation. The motion passed unanimously.

Mr. Powell read the following closed session statement: A motion having been made in open session to move into a closed session for a specific purpose, and such motion having carried by majority vote in open, public session, the Board shall now enter closed session to consider litigation matters, pursuant to KRS 61.810(1)(c), because of the necessity of protecting the confidentiality of the KPPA's litigation strategy and preserving any available attorney-client privilege.

All other attendees exited the meeting.

**Closed Session** (Video - Part 2 - 00:00:35 to 00:01:11). Mr. Powell called the meeting back to open session and stated that there would be no action taken as result of the closed session discussion.

15. There being no further business, Mr. Powell **adjourned** the meeting.

Copies of all documents presented are incorporated as part of the Minutes of the KPPA held September 26, 2024, except documents provided during a closed session conducted pursuant to the Open Meetings Act and exempt under the Open Records Act.

*The remainder of this page is left blank intentionally.*



## CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Board on the various items considered by it at this meeting. Further, I certify that all requirements of KRS61.805-61.850 were met in conjunction with this meeting.

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Recording Secretary

We, the Chair of the Kentucky Public Pensions Authority and Executive Director, do certify that the Minutes of Meeting held on September 26, 2024, were approved on December 5, 2024.

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KPPA Board Chair

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Executive Director

I have reviewed the Minutes of the September 26, 2024, Kentucky Public Pensions Authority Meeting for content, form, and legality.

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Executive Director, Office of Legal Services



## Kentucky Public Pensions Authority

### Division of Internal Audit



Kentucky Public  
Pensions Authority

To: Kentucky Public Pensions Authority Board

From: William O'Mara, Chair  
KPPA Audit Committee

Kristen N. Coffey, CICA  
KPPA Chief Auditor

Date: December 5, 2024

Subject: Summary of KPPA Audit Committee Meeting

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The KPPA Audit Committee held a regularly scheduled meeting on November 19, 2024.

#### 1. Requested actions by the Authority\*

- a. Approve the fiscal year ended June 30, 2024 Annual Comprehensive Financial Report, both for CERS and KRS. Authorize KPPA staff to publish both audit reports on the KPPA website.
- b. Ratify approval of KPPA management's response to the fiscal year ended 2023 GFOA ACFR Letter.
- c. Ratify acceptance of the issued Infrastructure and Application Security Assessment. Authorize KPPA staff to implement corrective action.
- d. Ratify approval of the purchase of an Infrastructure and Application Security Assessment. Authorize KPPA staff to complete the procurement process.
- e. Ratify acceptance of the issued internal audits/open audit findings. Authorize KPPA staff to implement corrective action.
  - i. Review of 1099-R Process

#### 2. The following other items were also discussed during the Audit Committee meeting. These were presented for informational purposes only.

- a. External Audit Management Letter Comments.
- b. Auditor Communications with those Charged with Governance.
- c. Information disclosures – *10 disclosures identified, effecting 8 members.*
- d. Anonymous Tips – *6 open cases.*
- e. Introduction of Internal Audit Staff – Zachary Curtis (Auditor II) and James Westbay (Interim - Internal Auditor) joined on November 1, 2024.
- f. Internal Audit Budget – *82% of budget remaining.*
- g. Status of current internal audits – *33 projects for fiscal year 2025, 7 have been completed. Through October 31, 2024, staff have worked 38 hours of overtime.*

**\*Authority action may be required**



# Kentucky Public Pensions Authority

## Division of Internal Audit



### **Overall Opinion**

Process generally complies with relevant statutes, regulations, policies, and procedures. Internal controls are established and working effectively and efficiently.

### **Issue Date**

October 14, 2024

### **Summary of Findings**

No reportable findings were noted as a part of this audit.

### **Commendations**

The Division of Retiree Services-Payroll was helpful and accommodating throughout this audit. Staff were willing to meet with us and walk us through their processes. They quickly answered questions and provided the information we needed to complete our audit. We found that all items tested were in compliance with federal and state regulations as well as agency procedures. We also found that internal controls were established, and the processes were operating effectively and efficiently.

### **Report Contents**

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### **Acronyms**

The following acronyms will be used throughout the report:

1. KPPA - Kentucky Public Pensions Authority
2. CERS - County Employees Retirement System
3. KRS - Kentucky Retirement Systems
4. CEO - Chief Executive Officer
5. CFO - Chief Financial Officer
6. KPPA Executive Management Team - KPPA Executive Director, KPPA Deputy Executive Director, KPPA Executive Director – Office of Benefits, and KPPA CFO
7. IT – KPPA Division of Enterprise and Technology Services
8. IRS – Internal Revenue Service
9. LOB – Line of Business

### **Objectives**

The 1099-R Process audit was conducted from June 17, 2024 to October 1, 2024. The scope of the audit was tax year 2023.

The objectives of the 1099-R Process audit were to ensure internal controls have been designed and are operating effectively and efficiently. We also ensured compliance with applicable state and federal statutes and regulations as well as policies established by the KPPA, CERS, and KRS Boards and procedures developed by KPPA staff.

### **Recommendations for Future Audits**

No recommendations for future audit were noted during this audit.

### **Use of Report**

This report is intended solely for use by the KPPA Audit Committee; the KPPA, CERS, and KRS Boards; the CERS CEO; the KRS CEO; the KPPA Executive Management Team; and the Division of Retiree Services-Payroll. This report is not intended to be, and should not be, used by anyone other than the specified parties. All final reports are subject to Open Records Requests.

Appendix A – Control Matrix

Risk	Control Objective	COSO Element	COSO Principle	How Does Division of Retiree Services Payroll Meet Objective	Audit Procedure and Test Results
Procedures/Internal Controls Are Not Established, Documented, Effective Or Efficient	To ensure 1099-R procedures are up-to-date and available to staff as required by 200 KAR Chapter 38-070.	Control Environment	Oversight body and management establishes an organizational structure, assigns responsibility, and delegates authority to achieve the entity's objectives.	Division Director has been established as the authority to oversee the Division of Retiree Services Payroll and develop procedures needed to fulfill the duties of the division.	<u>Testing Procedure</u> Reviewed 1099-R procedures to ensure they were established, documented, up-to-date, effective, efficient, and available to staff.
		Risk Assessment	Management identifies, analyzes, and responds to significant changes that could impact the internal control system.	Division Director reviews procedures and ensures they are documented and up-to-date. Division Director makes updates as necessary.	<u>Testing Result</u> Procedures are up-to-date.
		Control Activities	Management implements control activities through policies.	A senior Retiree Payroll staff member is dedicated to reviewing procedures and ensuring they are up to date. If there is a change to a process, the procedures are updated immediately.  1099-R process does not change much. Changes would typically be legislative or federally mandated. If Retiree Payroll staff see a pattern of exceptions, the procedures are updated to reflect how to address that exception.	
		Information and Communication	Management communicates necessary information internally.	Division Director ensures procedures are on SharePoint and available to staff.	
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	A senior Retiree Payroll staff member is dedicated to reviewing procedures and ensuring they are up to date.	
IT batches fail to run as scheduled	To ensure IT batches related to Retiree Payroll run as scheduled.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1099-R Calc Batch is run at the close of business on the last working day of the calendar year. 1. Retiree Payroll staff selection to run this batch in LOB a. Retiree Year-End Process 1099-R b. 1099-R Kick-off tab c. Select to run either Regular or Corrected. d. Select the year. e. Pick file type - Calculate 1099-R, Generate for printer, or Generate for IRS 2. Retiree Payroll staff monitor the file, via the batch log, to ensure it runs correctly. Contact DETS if there are any errors. 3. Retiree Payroll staff balance the 1099-R calculation file to the Control Report to the Payment History Totals Report. <i>Note: the Payment History Totals report is not static and updates with each payroll run.</i>	<u>Testing Procedures</u> During walkthrough, reviewed LOB and ensured the following: 1. 1099-R Calculation Batch was run on the last working day of the calendar year. 2. Critical errors were corrected. 3. Approval step was completed.  <u>Testing Results</u> 1. 1099-R Calculation Batch was run on December 28, 2023. 2. 1099-R Calculation Batch was run with 152,831 files processed with zero errors. 3. 1099-R Calculation Batch was approved on December 28, 2023
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Once the batch is successfully run and the report is reconciled, staff select the 1099-R Review tab and click the "Approve" button. <i>Note: this button does not appear on screen after the batch has been approved.</i>	
System generated files altered after creation	To ensure files generated from IT batches are not altered after they are generated, in compliance with the KPPA Data Protection Policy.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1. Only the Division Director and Payroll Services Retirement Programs Manager have access to the 1099-R process in LOB. Proper LOB access is confirmed twice a year during the Security Access Review. 2. Generated files are saved on the J-Drive. Only the Division Director and Payroll Services Retirement Programs Manager have access to the files on the J-Drive. They do not have access once the files are submitted to the printer or IRS. <i>Note: this access is controlled by IT.</i>	Testing is not required in this audit. Proper access is reviewed as a part of the Security Access Review completed twice a year.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Once the batch is successfully run and the report is reconciled, staff select the 1099-R Review tab and click the "Approve" button. <i>Note: this button does not appear on screen after the batch has been approved.</i>	<u>Testing Procedures</u> During walkthrough, reviewed LOB and ensured the approval step was completed.  <u>Testing Results</u> 1099-R Calculation Batch was approved on December 28, 2023.
KPPA Procedures Do Not Comply With IRS Guidelines	To ensure KPPA procedures comply with IRS requirements.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1. Division Director reviews IRS website for publications 1220, 1099-R, and 1099-R. Additionally, reviews Notice 1036 and Publication 15, which are the tax rates for the next calendar year. This typically begins in September. 2. Division Director reviews 1099-R related forms to determine if updates are needed. If changes are needed, Division Director updates the procedures on SharePoint and shares updates with staff.	<u>Test Procedures</u> 1. For 1099-R year 2023, compared current procedures to IRS guidelines and ensured procedures complied with federal requirements. 2. Reviewed SharePoint revision date and ensured updates were made prior to the start of the 1099-R process. 3. Reviewed SharePoint and ensured updates were posted.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Payroll Services staff review changes to IRS file and/or Form 1099-R to ensure updates are accurate.	<u>Test Results</u> 1. Procedures in place for 1099-R year 2023 complied IRS guidelines. 2. Procedures were last updated in July 2024. 3. Updated procedures are on SharePoint.
1099-R Batch File Does Not Comply With IRS Requirements	To ensure 1099-R batch file complies with IRS requirements.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1. In November Retiree Payroll staff ask for a refresh with the latest Production code in a test environment. Staff run the 1099-R calculation batch. There are established query reports on the Payroll Reports SQL Server that provides a large variety of scenarios to test. 2. Once the batch is run, IT points the reports to the particular environment the batch that was run. 3. Hundreds of 1099-Rs are reviewed for accuracy of data, distribution code, missing addresses, format, etc. 4. Any data that needs to be cleaned up is corrected by manual process or Data Scripts. If a defect in the calculation batch is detected, a critical PIR is written to get it fixed before the 1099-R calculation batch is run. 5. At a minimum, a Web Help Desk ticket is created to update the year on the 1099-R file.	<u>Test Procedures</u> 1. Reviewed Web Help Desk ticket and ensured required updates were requested to 1099-R file. 2. Reviewed fiscal year 2024 PIR related to 1099-R file and ensured noted issues were reported prior to the start of the 1099-R process.  <u>Test Results</u> All updates were requested as a part of Web Help Desk ticket 35127, which was requested on September 22, 2023. Corrections were made as a part of the productions build that occurred on November 29, 2023.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Retiree Payroll staff keep running batches and testing throughout the month of November and December to make sure the data is correct, and any defects are fixed.	

KPPA Board Meeting - KPPA Audit Committee Report and Recommendations

Risk	Control Objective	COSO Element	COSO Principle	How Does Division of Retiree Services Payroll Meet Objective	Audit Procedure and Test Results
1099-R Data Not Submitted To IRS Timely	To ensure 1099-R data is submitted to the IRS timely.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	Procedures for uploading a test file are contained in Publication 1220. The IRS requires the original 1099R Fire Site File to be uploaded by March 31. 1. Retirement Programs Manager typically generates the file in the middle of February. 2. Payroll Services Retirement Programs Manager creates a Web Help Desk ticket requesting the generated 1099R IRS file be uploaded to the IRS Fire Site.	<u>Test Procedures</u> Reviewed submission confirmation from IRS and ensured 1099-R information was originally submitted by the March 31 deadline.  <u>Test Results</u> The 1099-R information was submitted and accepted by the IRS prior to the March 31 deadline. The initial IRS file that was uploaded failed because of a spacing change that was not made in the initial file. The format was updated, and a replacement file was uploaded on March 1, 2024. IRS confirmed receipt of the valid file on March 3, 2024.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	1. IRS provides an email with the status of the file - failed or success. This email is received by DETS and a copy is either attached to the Web Help Desk ticket or emailed to the ticket requestor. 2. Once the status is good, Payroll Services Retirement Programs Manager will document the file name and batch # in the 1099R History Tab in Line of Business. If there are formatting changes, Retiree Payroll staff upload a test file to the IRS Fire Site.	
1099-R Not Submitted To Members Timely	To ensure 1099-R data is submitted to members timely.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	Division Director creates a vendor timeline/checklist of items that must be completed, along with the required due date.	<u>Test Procedures</u> 1. Reviewed vendor timeline/checklist and ensured it contains deadlines. 2. Reviewed communications with vendor to ensure deadlines were met. 3. Reviewed communications with vendor to ensure 1099-Rs were mailed by January 31, 2024.  <u>Test Results</u> 1. Vendor timeline outlined all required deadlines to ensure 1099-Rs were provided to members timely. 2. KPPA staff frequently communicated with vendor, ensuring that deadlines were met. 3. Email from vendor confirmed that initial 1099-R batch was mailed on January 25, 2024.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Retiree Payroll staff meet with the vendor to discuss expectations.	
1099-R Not Provided To All Required Individuals	To ensure 1099-R is provided to all required members required members.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	Retirement Programs Manager runs 1099-R Calc Batch at the close of business on the last working day of the calendar year. Retiree Payroll staff selection to run this batch in LOB: 1. Retiree Year-End Process 1099-R 2. 1099-R Kick-off tab 3. Select to run either Regular or Corrected. 4. Select the year. 5. Pick file type - Calculate 1099-R, Generate for printer, or Generate for IRS  <i>Note: Federal law requires that the original 1099-R be physically mailed. Duplicates or corrected 1099-R can be sent via email.</i>	<u>Test Procedures</u> Compared the number of records processed on the 1099-R Calculation Batch to the number of records processed on the Controls Report, IRS File, and Printer File. Ensured the numbers agreed, with the exception of those individuals living abroad.  <u>Test Results</u> The number of records processed on the 1099-R Calculation Batch, the Controls Report, IRS File, and Printer File matched with the exception of individuals who received a W-2 rather than a 1099-R and those individuals living abroad.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	The number of records on the IRS file should match to the number on the printer file, with the exception of those individuals living abroad since those are mailed manually.	
1099-R Amounts are Inaccurate or Negative	To ensure 1099-R amounts are accurate or not negative.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1. Payroll Services Division Director provides the vendor with electronic copies of the template, 1099-R file layout, 1099-R document mapping and return address file layout. 2. The vendor provides a sample of 25 1099-Rs that are a variety of the types that will be printed (i.e. long addresses, short addresses, large and small numeric values, ones with values in different sections of the 1099R document). This sample can be provided electronically. 3. Once the initial sample is approved, a sample of 25 is extracted from the full test file with the full intelligent bar code. This sample can be provided electronically. 4. Once that sample is approved, the full printer file is run in the Production environment. A sample of 50 1099R-s is chosen by the vendor, placed in envelopes, and delivered to KPPA. This sample must be printed on the proper 1099-R paper and in the correct type of envelop so that KPPA staff can verify all aspects of the 1099-R.	<u>Test Procedures</u> 1. Selected a sample of 1099-Rs: a. Ensured amount on 1099-R matched member profile. b. Ensured 1099-R was not negative. 2. Reviewed communications with vendor to ensure any issues noted were addressed prior to 1099-R batch being generated.  <u>Test Results</u> 1. Results of testing showed the following: a. 40 of 40 1099-Rs listed a gross distribution and federal tax amount that matched the information in the member's profile. b. 40 of 40 1099-Rs did not list negative amounts. 2. On December 27, 2023, KPPA staff confirmed with vendor that samples were acceptable and calculation batch would be run the next day.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	1. Payroll Retiree staff review the initial sample provided by the vendor to make sure the template is correct, the font is readable and the field values are what is expected. If there are any errors, vendor is asked to make corrections in the template and the mapping and send new samples immediately. Continue working with vendor until everything is correct. 2. For the sample provided from the full file, Payroll Retiree staff inspect the samples for anomalies that could cause incorrect figures or delivery issues. Work with the vendor to resolve any issues. 3. For the file run in the Production environment, Retiree Payroll staff inspect the samples for abnormalities that could cause incorrect figures or delivery issues. Work with the vendor to resolve any issues.	

KPPA Board Meeting - KPPA Audit Committee Report and Recommendations

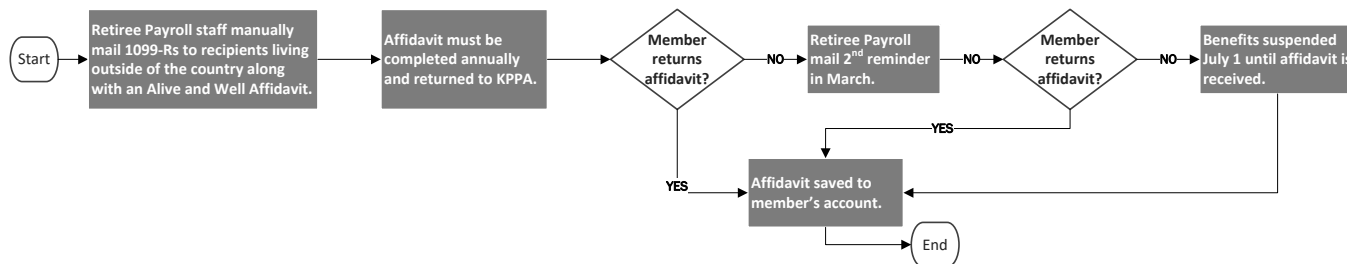
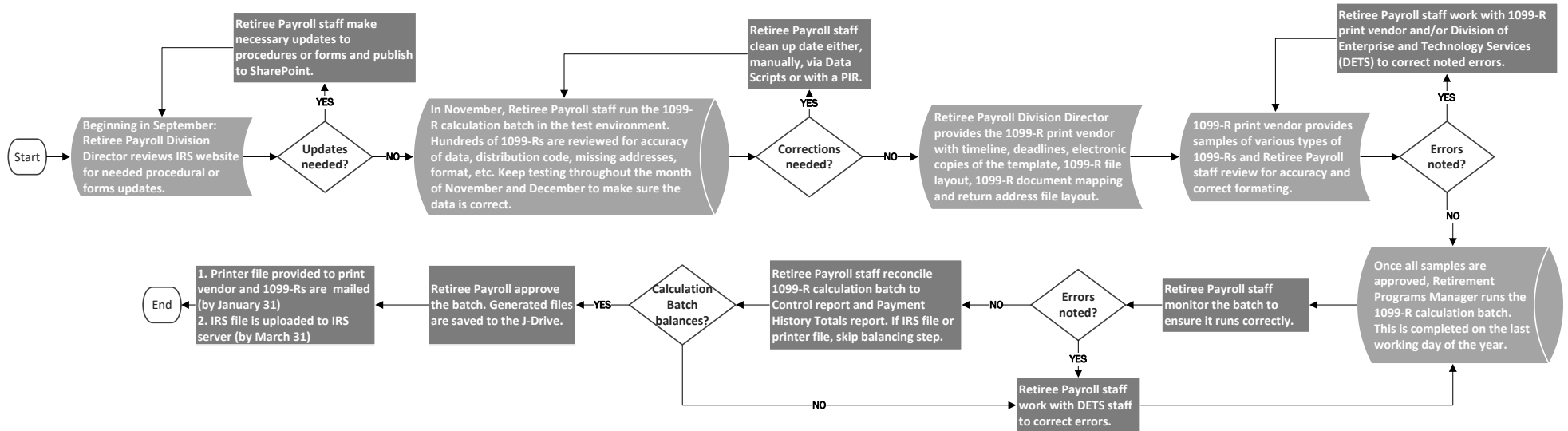
Risk	Control Objective	COSO Element	COSO Principle	How Does Division of Retiree Services Payroll Meet Objective	Audit Procedure and Test Results
1099-R Information Is Inaccurate	To ensure 1099-R information is accurate.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	<ol style="list-style-type: none"> <li>1. Payroll Services Division Director provides the vendor with electronic copies of the template, 1099-R file layout, 1099-R document mapping and return address file layout.</li> <li>2. The vendor provides a sample of 25 1099-Rs that are a variety of the types that will be printed (i.e. long addresses, short addresses, large and small numeric values, ones with values in different sections of the 1099R document). This sample can be provided electronically.</li> <li>3. Once the initial sample is approved, a sample of 25 is extracted from the full test file with the full intelligent bar code. This sample can be provided electronically.</li> <li>4. Once that sample is approved, the full printer file is run in the Production environment. A sample of 50 1099R-s is chosen by the vendor, placed in envelopes, and delivered to KPPA. This sample must be printed on the proper 1099-R paper and in the correct type of envelop so that KPPA staff can verify all aspects of the 1099-R.</li> </ol>	<p><u>Test Procedures</u></p> <ol style="list-style-type: none"> <li>1. Selected a sample of 1099-Rs:                             <ol style="list-style-type: none"> <li>a. Ensured the name on 1099-R matched name in system.</li> <li>b. Ensured the address on 1099-R matched address in system.</li> </ol> </li> <li>2. Reviewed communications with vendor to ensure any issues noted were addressed prior to 1099-R batch being generated.</li> </ol> <p><u>Test Results</u></p> <ol style="list-style-type: none"> <li>1. Results of testing showed the following:                             <ol style="list-style-type: none"> <li>a. 40 of 40 1099-Rs contained a name that matched the name in the member's profile.</li> <li>b. 40 of 40 1099-Rs were mailed to the address listed in the member's profile.</li> </ol> </li> <li>2. On December 27, 2023, KPPA staff confirmed with vendor that samples were acceptable and calculation batch would be run the next day.</li> </ol>
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	<ol style="list-style-type: none"> <li>1. Payroll Retiree staff review the initial sample provided by the vendor to make sure the template is correct, the font is readable and the field values are what is expected. If there are any errors, vendor is asked to make corrections in the template and the mapping and send new samples immediately. Continue working with vendor until everything is correct.</li> <li>2. For the sample provided from the full file, Payroll Retiree staff inspect the samples for anomalies that could cause incorrect figures or delivery issues. Work with the vendor to resolve any issues.</li> <li>3. For the file run in the Production environment, Retiree Payroll staff inspect the samples for abnormalities that could cause incorrect figures or delivery issues. Work with the vendor to resolve any issues.</li> </ol>	
1099-R Does Not Provide All Required Information	To ensure 1099-R includes all required information.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	<ol style="list-style-type: none"> <li>1. Payroll Services Division Director provides the vendor with electronic copies of the template, 1099-R file layout, 1099-R document mapping and return address file layout.</li> <li>2. The vendor provides a sample of 25 1099-Rs that are a variety of the types that will be printed (i.e. long addresses, short addresses, large and small numeric values, ones with values in different sections of the 1099R document). This sample can be provided electronically.</li> <li>3. Once the initial sample is approved, a sample of 25 is extracted from the full test file with the full intelligent bar code. This sample can be provided electronically.</li> <li>4. Once that sample is approved, the full printer file is run in the Production environment. A sample of 50 1099R-s is chosen by the vendor, placed in envelopes, and delivered to KPPA. This sample must be printed on the proper 1099-R paper and in the correct type of envelop so that KPPA staff can verify all aspects of the 1099-R.</li> </ol>	<p><u>Test Procedures</u></p> <ol style="list-style-type: none"> <li>1. Selected a sample of 1099Rs and ensured none of the required boxes were blank (boxes 1, 2a, 4 and 7. Most also have box 5)</li> <li>2. Reviewed communications with vendor to ensure any issues noted were addressed prior to 1099-R batch being generated.</li> </ol> <p><u>Test Results</u></p> <ol style="list-style-type: none"> <li>1. Required information was reported on 40 of 40 sampled 1099-Rs.</li> <li>2. On December 27, 2023, KPPA staff confirmed with vendor that samples were acceptable and calculation batch would be run the next day.</li> </ol>
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	<ol style="list-style-type: none"> <li>1. Payroll Retiree staff review the initial sample provided by the vendor to make sure the template is correct, the font is readable and the field values are what is expected. If there are any errors, vendor is asked to make corrections in the template and the mapping and send new samples immediately. Continue working with vendor until everything is correct.</li> <li>2. For the sample provided from the full file, Payroll Retiree staff inspect the samples for anomalies that could cause incorrect figures or delivery issues. Work with the vendor to resolve any issues.</li> <li>3. For the file run in the Production environment, Retiree Payroll staff inspect the samples for abnormalities that could cause incorrect figures or delivery issues. Work with the vendor to resolve any issues.</li> </ol>	
1099-R Mailed To The Wrong Address	To ensure 1099-R is mailed to the proper address.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	<p>When a 1099-R is returned to KPPA, a counselor or administrative assistant checks the system to determine if the address on file is different from the address on the 1099-R. If the address in the system is different, the 1099-R is mailed to the address on file.</p> <p><i>Note: in the past, staff was able to correct addressed in LOB if the Post Office provided a new address. However, in recent years, the information from the Post Office has become unreliable and these updates can no longer be made.</i></p>	<p><u>Test Procedures</u></p> <p>Selected a sample of 1099-Rs and ensured the address on 1099-R matched address in system.</p> <p><u>Test Results</u></p> <p>40 of 40 1099-Rs were mailed to the address listed in the member's profile.</p>
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	<p>Staff track the number of 1099-Rs that are returned and maintain the returned items until April. In April, the returned 1099-Rs are shredded.</p> <p><i>Note: These items are not tracked by member ID so a sample of returned 1099-Rs cannot be selected. However, testing on mailing items to the correct address is being conducted. If a member does not receive a 1099-R, it is up to them to call and request a duplicate 1099-R.</i></p>	

KPPA Board Meeting - KPPA Audit Committee Report and Recommendations

Risk	Control Objective	COSO Element	COSO Principle	How Does Division of Retiree Services Payroll Meet Objective	Audit Procedure and Test Results
Corrected 1099-R not Provided When Required	To ensure corrected 1099-R is provided, when required.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	There are two main ways it would be discovered that a corrected 1099-R is needed: 1. Member calls and requests a correction. a. Before creating the request for a corrected 1099-R, Retiree Services Payroll staff check the file to make sure they agree that the original 1099-R was in error. If they do not agree, they explain to them member why a correction is not needed. 2. Reports of deceased members are received and it is discovered that payments were made to members after they passed and the 1099-R amount has to be adjusted to reflect those payments.	<u>Test Procedures</u> 1. Reviewed report of corrected 1099-Rs to ensure corrected 1099-Rs were generated. 2. Selected a sample of corrected 1099-Rs and test for the following: a. Ensured the original 1099-R contained an error. b. Ensured error was corrected on the new 1099-R and that no other information was changed.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Beginning in April, the 1099-R Corrected batches are generated and the updated 1099-Rs are mailed to the member. Retirement Programs Manager runs the batch and Division Director reviews LOB to ensure this was completed.	<u>Test Results</u> 1. Corrected 1099-Rs were generated for tax year 2023. 2. No exceptions were noted during testing: 2 of 35 selected items did not require a corrected 1099-R. a. 33 of 35 selected members did receive an original 1099-R that contained an error, and a corrected 1099-R was received. b. 33 of 35 selected members received a corrected 1099-R that had the initial error corrected, and no other information was changed.
Duplicate 1099-R Provided without Proper Member Verification	To ensure duplicate 1099-R is not sent without proper authorization.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1. Members may call in and request a duplicate 1099-R. These calls are received by the Call Center. The Call Center staff instruct members how to log into Member Self-Service and print a duplicate 1099-R. Call Center staff may also generate a duplicate 1099-R, which will be sent via email. 2. If a member who did not receive his/her 1099-R, staff verify the member's address and check the journal entries to see if there is a note pertaining to action taken related to the 1099-R. a. If the 1099-R was returned as temporarily away, a Payroll High Priority request ticket is created requesting a duplicate 1099-R to be mailed to the member. b. If the address on file is incorrect, the member is advised that he/she must send a written change of address to the KPPA office or provide a valid PIN before staff can update the address and mail the 1099-R. i. Staff may send the member a Form 2040 (Change of Address Form) or the member may write a note requesting the address change. ii. If the member writes a note, it must include the file number and the member's signature. It must also clearly indicate that the member wishes to change his/her address and what the new address is.	Testing not required in this audit.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	If a member needs a duplicate 1099-R, it is up to them to call and request it or sign into Member Self-Service and generate a duplicate. Duplicate 1099-Rs are not tracked as these are typically handled via the Call Center. Controls related to updating member information has been tested in various audits with no issues noted.	
Members Or Beneficiaries Living Abroad May Be Deceased	To ensure members/beneficiaries living abroad did not pass away during the year, per division procedures.	Control Activities	Management designs control activities to achieve objectives and respond to risks.	1099-Rs are not automatically mailed to recipients living outside of the country. For these individuals, Retirement Programs Manager manually mail the 1099-R along with an Alive and Well Affidavit. 1. The affidavit must be completed annually. 2. A second notice is sent in March if the original affidavit is not received. 3. A third and final notice is sent out in June letting recipients know benefits will be suspended July 1 if an affidavit is not returned. 4. If the affidavit is not received by June 30, the member's benefits are suspended, effective July 1, until a valid affidavit is received.	<u>Test Procedures</u> 1. Reviewed 100% of retirees/beneficiaries living out of the country and test for the following: a. Current Alive and Well Affidavit is on file. b. If affidavit is not one file, follow-up notices were sent. c. If affidavit is not received by June 30, benefits were suspended as of July 1. 2. Reviewed Members Living Abroad spreadsheet and ensured actions were properly tracked.  <u>Test Results</u> 1. For all individuals tested, affidavits were received by the deadline or benefits were suspended. a. 18 of 20 affidavits were received by June 30, 2024. b. Two of 20 affidavits were not received June 30, 2024. Benefits were suspended for both individuals. c. Suspended Benefits: i. One affidavit was received on July 24, 2024. Benefit payments were suspended in July and resumed in August. ii. One affidavit had still not been received as of the date of testing (September 10, 2024). Benefits were suspended July 2024. 2. Retiree Payroll properly tracked receipt of Alive and Well Affidavits from members living abroad.
		Monitoring	Management establishes and operates monitoring activities to monitor the internal control system and evaluate the results.	Retirement Programs Managers runs a report showing members who live abroad. Communications about Alive and Well Affidavit is tracked on the report. Division Director reviews to ensure proper action taken.	



Appendix B – 1099-R Flowchart



Returned 1099-Rs

- When a 1099-R is returned to KPPA, a counselor or administrative assistant checks the system to determine if the address on file is different from the address on the 1099-R. If the address in the system is different, the 1099-R is mailed to the address on file.
- Staff track the number of 1099-Rs that are returned and maintain the returned items until April. In April, the returned 1099-Rs are shredded.

Corrected 1099-Rs

The need for a corrected 1099-R is discovered if a member calls in requesting a correction or if Retiree Payroll staff receive notification of a member death.

- Before creating the request for a corrected 1099-R, Retiree Services Payroll staff check the file to make sure they agree that the original 1099-R was in error. If they do not agree, they explain to them member why a correction is not needed.
- Beginning in April, the 1099-R Corrected batches are generated and the updated 1099-Rs are mailed to the member. Retirement Programs Manager runs the batch and Division Director reviews LOB to ensure this was completed.

Duplicate 1099-Rs

Members may call in and request a duplicate 1099-R. These calls are received by the Call Center. The Call Center staff instruct members how to log into Member Self-Service and print a duplicate 1099-R. Call Center staff may also generate a duplicate 1099-R, which will be sent to the address on file (an email can be sent if a member requests an email rather than a hard copy).

- If a member who did not receive his/her 1099-R, staff verify the member's address and check the journal entries to see if the 1099-R was returned.
- If the 1099-R was returned as temporarily away, a Payroll High Priority request ticket is created requesting a duplicate 1099-R to be mailed to the member.
- If the address on file is incorrect, the member is advised that he/she must send a written change of address to the KPPA office or provide a valid PIN before staff can update the address and mail the 1099-R.

DATE

Board of Directors  
County Employees Retirement System  
Frankfort, Kentucky

We have audited the financial statements of County Employees Retirement System (CERS) for the year ended June 30, 2024. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and Government Auditing Standards, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated May 31, 2024. Professional standards also require that we communicate to you the following information related to our audit.

**SIGNIFICANT AUDIT MATTERS**

**QUALITATIVE ASPECTS OF ACCOUNTING PRACTICES**

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by CERS are described in Note A to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year. We noted no transactions entered into by CERS during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

- Management's estimates related to the fair value of its investments based on the net asset value (NAV) of units of the investee. The NAV, as provided by the investment manager, is used as a practical expedient. The NAV is based on the fair value of the underlying investments held by the investee less its liabilities. Due to the nature of the investments held by the investee, changes in market conditions and the economic environment may significantly impact the net asset value of the investee and, consequently, the fair value of CERS's interests in the investee. In performing our audit, we have considered the internal controls of CERS in selecting, monitoring, and valuing these investments. We have also

Board of Directors  
 County Employees Retirement System  
 DATE  
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confirmed the year end balances of alternative investments and have reviewed selected investments' underlying annual audited financial statements. We evaluated the key factors and assumptions used to develop NAV and believe that they are reasonable in relation to the financial statements taken as a whole.

- Management's disclosure of the net pension liability in Note I to the financial statements. The information presented therein was obtained from CERS's actuarial valuations and the methods and assumptions used in determining the amounts are disclosed in the footnote. We evaluated the key factors and assumptions used to develop the estimate in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's disclosure of the net OPEB liability of CERS in Note I the financial statements. The information presented therein was obtained from the CERS's actuarial valuations and the methods and assumptions used in determining the amounts are disclosed in the footnote. We evaluated the key factors and assumptions used to develop the estimate in determining that it is reasonable in relation to the financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

**DIFFICULTIES ENCOUNTERED IN PERFORMING THE AUDIT**

We encountered no significant difficulties in dealing with management in performing and completing our audit.

**CORRECTED AND UNCORRECTED MISSTATEMENTS**

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. The below entry summarizes uncorrected misstatements of the financial statements. Management has determined that its effect is immaterial, both individually and in the aggregate, to the financial statements taken as a whole. This entry is a common uncorrected misstatement for entities that invest in alternative investments and represents a lag in reporting of the investment value as of June 30. The investment value reported by the custodian is reported as a few months prior to June 30 and thus a lag in valuation is created. The below entry represents the value of that lag for the current year to bring the investment value to June 30. Management has determined that their effect is immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

Entry to adjust value of investments to June 30, 2024, net asset value:

DR. Net Depreciation in FV of Investments	\$XXX	
CR. Investments		\$XXX
CR. Fiduciary Net Position Restricted for Benefits		\$XXX

Board of Directors  
County Employees Retirement System  
DATE  
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### **DISAGREEMENTS WITH MANAGEMENT**

For purposes of this letter, a disagreement with management is a disagreement on a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

### **MANAGEMENT REPRESENTATIONS**

We have requested certain representations from management that are included in the management representation letter dated as of the date of this letter.

### **MANAGEMENT CONSULTATIONS WITH OTHER INDEPENDENT ACCOUNTANTS**

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to CERS's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations.

### **OTHER AUDIT FINDINGS OR ISSUES**

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as CERS's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

### **OTHER MATTERS**

We applied certain limited procedures to the required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the additional supporting schedules of administrative expenses, direct investment expenses, and professional consultant fees which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

Board of Directors  
County Employees Retirement System  
DATE  
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This information is intended solely for the use of management, the board of directors, and others within CERS and is not intended to be, and should not be, used by anyone other than these specified parties.

We appreciate this opportunity to be of service and extend our thanks to everyone at CERS for their cooperation and assistance. We would be pleased to discuss any of the above matters with you at your convenience.

Very truly yours,

*Blue & Co., LLC*

DRAFT

DATE

Board of Directors  
Kentucky Retirement Systems  
Frankfort, Kentucky

We have audited the financial statements of Kentucky Retirement Systems (KRS) for the year ended June 30, 2024. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and Government Auditing Standards, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated May 31, 2024. Professional standards also require that we communicate to you the following information related to our audit.

**SIGNIFICANT AUDIT MATTERS**

**QUALITATIVE ASPECTS OF ACCOUNTING PRACTICES**

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by KRS are described in Note A to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year. We noted no transactions entered into by KRS during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

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Board of Directors  
 Kentucky Retirement Systems  
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confirmed the year end balances of alternative investments and have reviewed selected investments' underlying annual audited financial statements. We evaluated the key factors and assumptions used to develop NAV and believe that they are reasonable in relation to the financial statements taken as a whole.

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- Management's disclosure of the net OPEB liability of KRS in Note I the financial statements. The information presented therein was obtained from the KRS's actuarial valuations and the methods and assumptions used in determining the amounts are disclosed in the footnote. We evaluated the key factors and assumptions used to develop the estimate in determining that it is reasonable in relation to the financial statements taken as a whole.

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Kentucky Retirement Systems  
DATE  
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We were engaged to report on the additional supporting schedules of administrative expenses, direct investment expenses, and professional consultant fees which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.



Board of Directors  
Kentucky Retirement Systems  
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This information is intended solely for the use of management, the board of directors, and others within KRS and is not intended to be, and should not be, used by anyone other than these specified parties.

We appreciate this opportunity to be of service and extend our thanks to everyone at KRS for their cooperation and assistance. We would be pleased to discuss any of the above matters with you at your convenience.

Very truly yours,

*Blue & Co., LLC*

DRAFT



**CERS**

County Employees Retirement System (CERS)

A component unit and a pension trust fund of the Commonwealth of Kentucky.

**CERS DRAFT 12-4-2024**

# **Annual Comprehensive *Financial Report***



**For the fiscal year ended  
*June 30***

# **2024**

*Prepared by Kentucky Public Pensions  
Authority's Division of Accounting.*

*Available online at [kyret.ky.gov](http://kyret.ky.gov)*

Photo, front cover: Overview of Frankfort, KY, dry brush stylized.

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## KENTUCKY PUBLIC PENSIONS AUTHORITY

Ryan Barrow, Executive Director

1260 Louisville Road · Frankfort, Kentucky 40601  
kyret.ky.gov · Phone: 502-696-8800 · Fax: 502-696-8822



### To our Members, Benefit Recipients, Employers and the Board of Trustees

December 5, 2024

On behalf of the Kentucky Public Pensions Authority (KPPA) we are honored to present the Annual Comprehensive Financial Report (ACFR) of the County Employees Retirement System (CERS), a component unit of the Commonwealth of Kentucky, for the Fiscal Year Ended (FYE) June 30, 2024.

Responsibility for the accuracy, completeness, and fairness of the information presented rests ultimately with KPPA management which, along with the Executive Director and staff, assist the KPPA Board in its responsibilities. Because the cost of internal control should not exceed anticipated benefits, KPPA relies on a comprehensive framework of internal controls to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Blue & Co. LLC has issued an unmodified (“clean”) opinion on the CERS financial statements for the FYE June 30, 2024. The Independent Auditors’ report is located in the Financial Section of this report.

The Management’s Discussion and Analysis (MD&A) is also located in the Financial Section of this report. The MD&A provides an analytical overview of the financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

KPPA is the special-purpose government responsible for the day-to-day administration of the County Employees Retirement System (CERS) and the Kentucky Retirement Systems (KRS), comprising the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS).

Prior to 2021 all three systems were governed by a single Board of Trustees. This Board, management, and staff were all referred to as the Kentucky Retirement Systems (KRS). Under this single Board of Trustees, KRS issued one ACFR, including all three systems and their related pension and insurance trust plans.

Effective April 1, 2021, the KRS Board of Trustees was modified in statute to become three boards:

1. A new nine-member Board of Trustees to oversee CERS (the CERS Board).
2. A reconstituted nine-member Board of Trustees, retaining the KRS name, to oversee KERS and SPRS (the KRS Board).
3. A new eight-member Board to oversee the professional employees who provide administrative support, investment management, and conduct other activities on behalf of the CERS and KRS Boards. These employees are part of the Kentucky Public Pensions Authority (KPPA) and the board is referred to as the KPPA Board. The KPPA Board is composed of four CERS trustees and four KRS trustees, as defined by state statute.

For these past three fiscal years, KPPA has continued to issue one ACFR including all three systems and their related pension and OPEB plans.

Beginning with FYE 2024, KPPA is producing separate ACFRs for CERS and KRS. Supported by research and recommendations from KPPA management, this aligns with guidance from the Government Accounting Standards Board (GASB) and authority under state law. After considering this information, the Boards of Trustees for CERS and KRS have chosen to present separate ACFRs.

KPPA will continue to produce a single Summary Annual Financial Report (SAFR) that provides an overview of information in the CERS and KRS ACFRs, as well as insights into the combined systems.

This approach aims to enhance transparency and reporting by providing information relevant to each system's members, the public and stakeholders. KPPA believes separating the financial reporting for CERS and KRS, while also providing a combined high-level summary best achieves that goal.

### **From the Desk of Ryan Barrow KPPA Executive Director**

#### **KPPA Strategic Plan**

The strategic planning process has entered an exciting new phase. Small groups of KPPA employees and management have begun meeting to discuss specific business areas, how those areas are working now, and how they could be enhanced.

In March 2023, KPPA selected Provaliant Retirement LLC to help develop the agency's first strategic plan since 2009. In June 2024, KPPA published a strategic plan summary that identified four key areas of focus: organizational excellence, customer service delivery, infrastructure and key resources, and governance. A summary of the plan is on our website, [kyret.ky.gov](https://kyret.ky.gov).

Building on those four key focus areas, KPPA has established small committees examining specific business practices. To date, KPPA has committees addressing quality assurance, process documentation, member presentations and surveys. Each committee will work for several months to compare current practices with industry standards, make recommendations for enhancements and implement the approved changes.

The strategic planning and enhancement process are expected to be completed by 2028.

#### **An Eye to the Future**

By 2049, our actuarial target is to achieve a fully funded pension system, a crucial milestone that reflects our timeline to meeting the financial commitments. While we acknowledge that there is still much work ahead to reach this objective, we are making significant strides on our journey. Through diligent financial management and collaborative efforts among stakeholders, we are steadily improving our funding status. Each step we take brings us closer to ensuring the long-term stability and security of the pension system for current and future recipients.

#### **Ratings Boost**

Several factors directly influence credit ratings on state and local municipal debt, with the health of public pension systems being a significant consideration. This has improved in Kentucky in recent years due to the boards adopting actuarial assumptions that more accurately reflect the systems' conditions, a commitment on the part of employers to fully fund pension contributions, and strong investment returns.

All three major ratings agencies covering Kentucky, specifically Moody's, Standard & Poor's, and Fitch Ratings have taken note of the progress.

### **From the Desk of Ed Owens III CERS Chief Executive Officer**

CERS this year made significant strides in improving its asset base, reducing its unfunded liability, and addressing unpaid invoices for employer contributions.

Pension investments returned 11.7% in FY 2024, net of fees, while insurance investments earned 11.8%. All four pension and insurance portfolios returned significantly more than their 6.5% actuarial assumed rate of return and also surpassed the median return of 10.5% reported by the Wilshire Trust Universe Comparison Service (TUCS) for public pension funds with more than \$1 billion in assets. FY 2024 marked the second consecutive year that CERS pension and insurance portfolios achieved returns near or above 10%. This helped drive total assets in the plans overseen by the CERS Board of Trustees to a record \$18.3 billion as of June 30, 2024.

A byproduct of asset growth is that the funded status for the CERS Nonhazardous pension plan improved to 58.4% from 56.1% the fiscal year prior. Similarly, the CERS Hazardous pension's funded status increased to 54.0% from 51.4%.

This improvement comes as CERS grows its member base. The number of employees participating in CERS increased by slightly more than 1,700 in FY 2024 to 92,401. Member contributions to CERS grew by 8.7% during the year, while employer contributions fell 4%.

CERS also made strides in FY 2024 toward past due employer contributions. A team of KPPA employees across various divisions, as well as legal staff, researched options for charging interest on delinquent employer contributions and past due invoices. Out of that work came several recommendations, including charging 7.5% interest on delinquent and past-due amounts and creating an administrative regulation that addresses charging interest.

## Acknowledgments

The preparation of this report has been a collaborative effort of KPPA Executive Management and the Accounting Division, Communications Division, Office of Investments, and the CERS CEO. The contents have been reviewed by the Internal Audit Division. KPPA is responsible for all the information in the report and confidently presents it as a basis for understanding the stewardship of the system.

Respectfully submitted,



A handwritten signature in black ink, appearing to read 'Ryan Barrow'.

Ryan Barrow  
KPPA Executive Director



A handwritten signature in black ink, appearing to read 'M. Lamb'.

Michael B. Lamb, CPA  
KPPA Chief Financial Officer



## GOVERNANCE

As of December 5, 2024

The County Employees Retirement System (CERS) is governed by a nine member board of trustees consisting of three elected members and six gubernatorial appointees serving four-year terms. CERS has four representatives on the Kentucky Public Pensions Authority (KPPA) Board in addition to employing a Chief Executive Officer who serves as a legislative and executive advisor and a General Counsel who provides legal services.

### CERS BOARD OF TRUSTEES

George Cheatham, Chair  
J. Michael Foster, Vice Chair

General Counsel: Johnson Branco & Brennan, LLP  
Three (3) Elected Trustees  
Six (6) Appointed by Governor

#### LEADERSHIP:

Every April, the trustees elect a Chair and Vice Chair and affirm who will serve on the KPPA Board in compliance with state law.



KPPA Board Member

**George Cheatham**  
Chair  
Term ends March 31, 2025  
Nominated by KSBA



**J. Michael Foster**  
Vice Chair  
Term ends July 1, 2021\*  
Nominated by KACo



**Ed Owens III**  
Chief Executive Officer

#### CHIEF EXECUTIVE OFFICER (CEO):

The CEO works with the trustees and KPPA staff to carry out the statutory provisions of the system.

#### ELECTED BY MEMBERSHIP:

Every four years, three eligible CERS members are elected to serve on the Board of Trustees.



**Dr. Patricia P. Carver**  
Term ends March 31, 2025  
Elected by Membership



**Betty Pendergrass**  
Term ends March 31, 2025  
Elected by Membership



**Jerry Wayne Powell**  
Term ends March 31, 2025  
Elected by Membership

#### KPPA BOARD:

By law, the CERS Board Chair and Investment Committee Chair serve on this Board. The CERS Chair also appoints one elected trustee and one appointed trustee to the KPPA Board.

KPPA CHAIR

#### APPOINTED BY GOVERNOR:

The Governor selects appointees from lists of candidates provided by the:

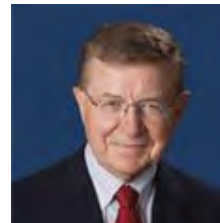
- Kentucky Association of Counties (KACo),
- Kentucky League of Cities (KLC), and
- Kentucky School Boards Association (KSBA).



**Dr. Martin Milkman**  
Term ends July 1, 2025  
Nominated by KSBA



**J.T. Fulkerson**  
Term ends July 1, 2021\*  
Nominated by KLC



**Dr. Merl Hackbart**  
Term ends March 31, 2025  
Nominated by KACo



**William O'Mara**  
Term ends March 31, 2025  
Nominated by KLC

KPPA Board Member

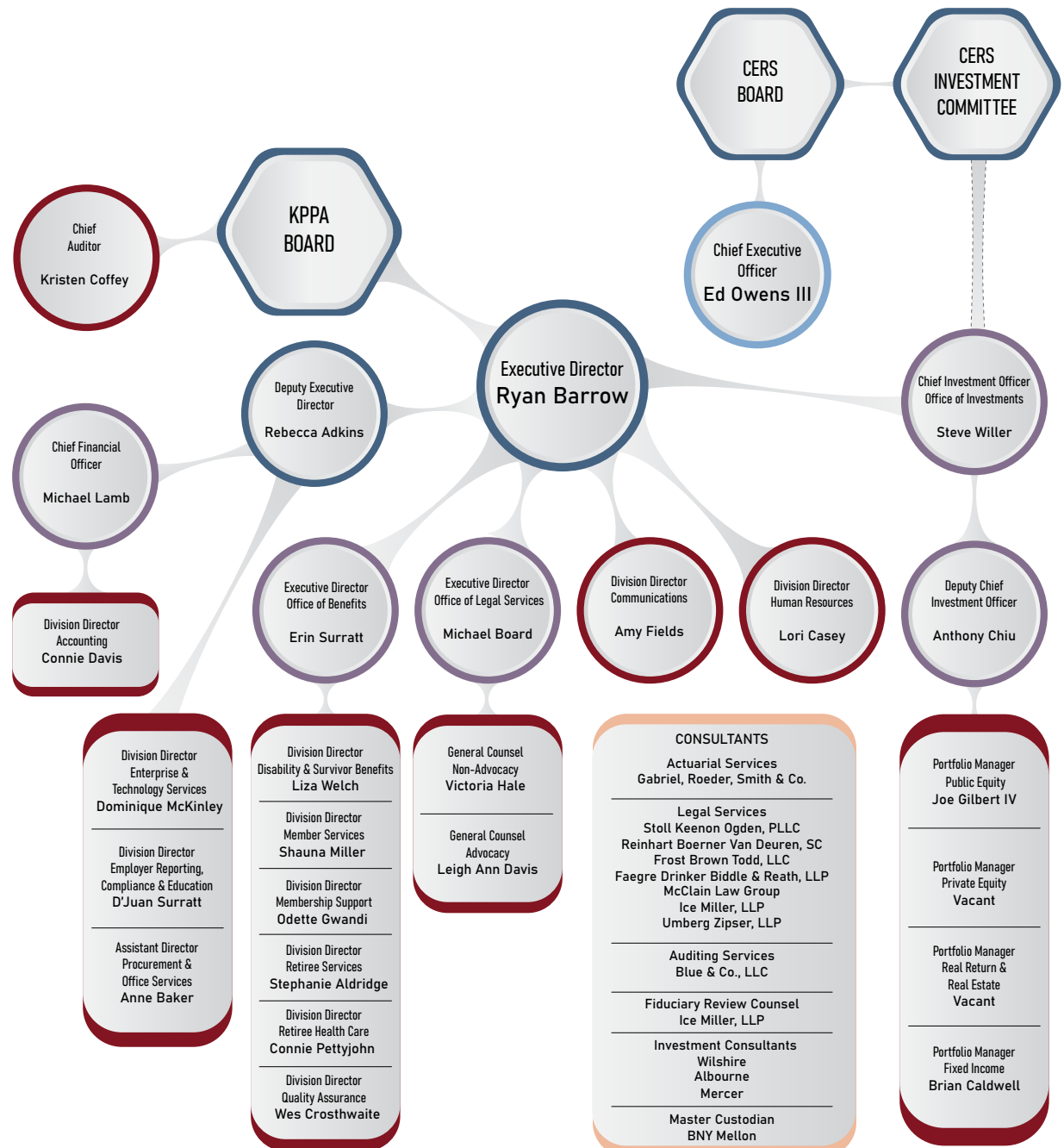
KPPA Board Member

\*Trustee continues to serve until the Governor makes an appointment to fill the trustee position.

# AGENCY STRUCTURE

As of December 5, 2024

The Kentucky Public Pensions Authority (KPPA) oversees the operations of the County Employees Retirement System (CERS) by providing administrative support, investment management, and conducting daily activities on behalf of the CERS Board of Trustees and KPPA Board. KPPA is led by an Executive Director who is appointed by the KPPA Board to work with the CERS Chief Executive Officer to carry out the statutory provisions of the system.

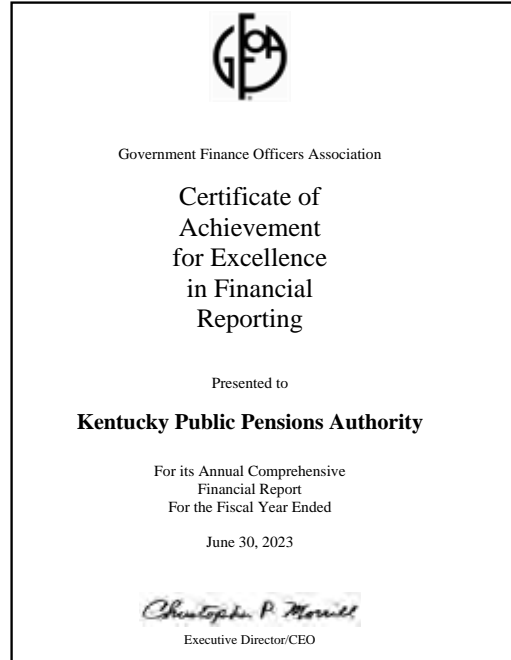


Refer to the Investments Section for additional information regarding Investment Advisors (pages 106-107) and Schedules of Fees and Expenses (pages 108-110).

# Professional Awards

**CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING**

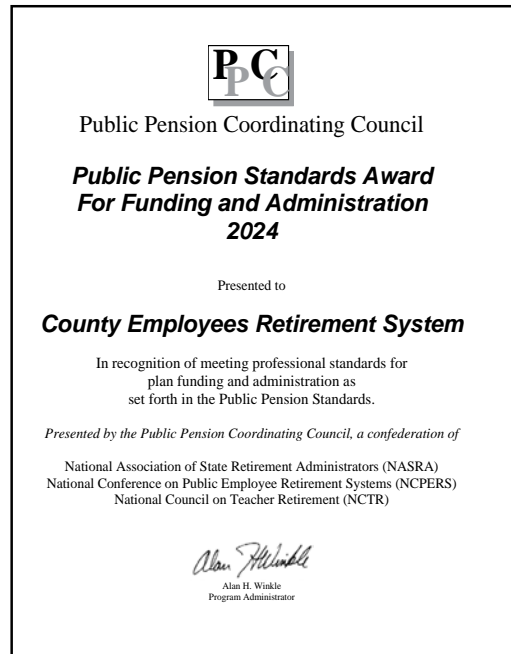
The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Kentucky Public Pensions Authority\* for its Annual Comprehensive Financial Report for the Fiscal Year ended June 30, 2023. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports and is valid for a period of one year. This is the 25<sup>th</sup> award earned by Kentucky Public Pensions Authority (formerly the Kentucky Retirement Systems). In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized document. The report must satisfy both generally accepted accounting principles and applicable legal requirements. We believe our 2024 report will continue to meet the Certificate of Achievement Program's requirements, and we will be submitting it to the GFOA for their consideration.



**PUBLIC PENSIONS STANDARDS AWARD FOR FUNDING AND ADMINISTRATION**

The Public Pension Coordinating Council awarded the Public Pensions Standards Award for Funding and Administration to the County Employees Retirement System (CERS) for 2024. This is the second award earned by CERS.

The Public Pension Coordinating Council established the Public Pension Standards to reflect expectations for public retirement system management, administration, and funding. The Standards serve as a benchmark to measure public defined benefit plans. The Award for Funding and Administration is a distinguished national award recognizing pension programs meeting professional standards for plan design and administration as set forth in the Public Pension Standards. This award is valid for a period of one year. We believe CERS will continue to meet these standards, and we will be applying for the award next year.



*\*Beginning with Fiscal Year 2024, two separate financial statement audits will be conducted for the County Employees Retirement System and Kentucky Retirement Systems. As a result, KPPA will issue two separate Annual Comprehensive Financial Reports on behalf of the respective Boards of Trustees. The GFOA Award is included in both ACFRs this Fiscal Year, however, the award will be based on the individual reports prospectively.*

# CERS DRAFT 12-4-2024

## Pension Benefits by County

2024 Total Fiscal Year CERS Pension Benefits Paid by County (in whole \$)								
County	Payees*	Total	County	Payees*	Total	County	Payees*	Total
Adair	355	\$4,362,815	Grant	518	\$8,387,132	McLean	228	\$2,503,138
Allen	344	3,915,544	Graves	712	9,531,662	Meade	437	6,083,614
Anderson	536	7,302,942	Grayson	683	9,660,717	Menifee	137	1,220,340
Ballard	217	2,706,393	Green	261	2,541,687	Mercer	433	5,089,948
Barren	858	10,758,494	Greenup	578	6,990,392	Metcalfe	253	2,713,091
Bath	268	2,719,579	Hancock	203	2,600,241	Monroe	209	1,874,372
Bell	490	6,128,001	Hardin	1,893	28,141,179	Montgomery	518	6,599,700
Boone	1,795	36,819,013	Harlan	422	4,286,773	Morgan	299	3,140,100
Bourbon	431	5,818,903	Harrison	384	5,019,642	Muhlenberg	560	5,589,013
Boyd	894	12,986,768	Hart	281	3,199,958	Nelson	920	14,889,790
Boyle	533	7,237,727	Henderson	1,005	15,527,276	Nicholas	148	1,567,316
Bracken	173	1,994,498	Henry	438	6,631,755	Ohio	541	4,857,485
Breathitt	304	2,913,312	Hickman	65	879,563	Oldham	971	18,891,142
Breckinridge	395	4,982,087	Hopkins	923	11,580,500	Owen	252	3,472,615
Bullitt	1,582	29,065,958	Jackson	240	2,026,834	Owsley	146	1,556,302
Butler	245	2,956,292	Jefferson	13,375	284,983,441	Pendleton	312	4,658,537
Caldwell	316	3,292,580	Jessamine	837	12,548,063	Perry	592	5,549,424
Calloway	636	8,261,445	Johnson	400	4,573,693	Pike	1,006	10,803,272
Campbell	1,248	23,682,707	Kenton	2,036	42,336,134	Powell	274	2,910,702
Carlisle	90	1,004,290	Knott	294	2,597,637	Pulaski	1,320	15,303,349
Carroll	224	2,946,284	Knox	475	5,104,232	Robertson	51	711,712
Carter	554	5,151,982	LaRue	283	3,228,833	Rockcastle	268	2,459,726
Casey	280	2,423,475	Laurel	941	9,739,771	Rowan	478	5,575,890
Christian	992	15,362,282	Lawrence	279	2,367,685	Russell	429	4,881,997
Clark	662	10,294,716	Lee	157	1,543,409	Scott	942	14,187,711
Clay	410	3,890,400	Leslie	182	1,585,700	Shelby	844	14,985,124
Clinton	228	1,840,034	Letcher	472	4,913,414	Simpson	256	2,747,855
Crittenden	134	1,296,220	Lewis	272	3,091,797	Spencer	429	9,196,363
Cumberland	123	1,434,662	Lincoln	520	5,098,265	Taylor	557	6,158,253
Daviess	2,333	40,294,323	Livingston	186	2,197,337	Todd	210	2,354,874
Edmonson	190	2,499,648	Logan	543	6,129,566	Trigg	331	4,356,263
Elliott	110	920,148	Lyon	177	2,080,351	Trimble	163	2,028,023
Estill	308	3,009,470	Madison	1,498	19,300,033	Union	325	3,314,153
Fayette	3,320	53,049,889	Magoffin	263	2,363,246	Warren	2,033	31,389,802
Fleming	342	3,714,909	Marion	437	5,150,931	Washington	264	3,144,491
Floyd	592	6,599,956	Marshall	709	9,208,063	Wayne	384	3,835,665
Franklin	1,397	22,807,360	Martin	235	2,213,762	Webster	292	3,298,567
Fulton	148	1,490,318	Mason	328	4,516,019	Whitley	805	7,029,428
Gallatin	106	1,579,233	McCracken	1,240	20,157,367	Wolfe	214	1,741,354
Garrard	316	\$3,498,050	McCreary	292	\$2,261,623	Woodford	538	\$8,261,025

Pension Benefits paid to retirees and beneficiaries of the County Employees Retirement System have a wide ranging impact on the state's economic health. In fiscal year 2024, CERS paid over \$1.28 billion to its recipients. The majority, 92.92%, of these payments are issued to Kentucky residents. Each county in the Commonwealth received at least \$700,000 from CERS, providing a stabilizing element for all local economies.

Total Retirement Payments For the Period ended June 30, 2024 (in Whole \$)			
	Payees	%	Payments
Kentucky	78,885	92.92%	1,190,239,916
Out of State	6,011	7.08%	93,857,084
<b>Grand Total</b>	<b>84,896</b>	<b>100.00%</b>	<b>\$1,284,097,000</b>

*\*This table represents all payees receiving a monthly payment, retirement eligible refund, or actuarial refund during the fiscal year.*

**Fiduciary Net Position Highlights**

CERS - Fiduciary Net Position* (\$ in Thousands)							
Year	CERS Nonhazardous			CERS Hazardous			CERS
	Pension	Insurance	Total	Pension	Insurance	Total	Total
<b>2015</b>	\$6,440,800	\$1,920,946	<b>\$8,361,746</b>	\$2,078,202	\$1,056,480	<b>\$3,134,682</b>	<b>\$11,496,428</b>
<b>2016</b>	6,141,396	1,908,550	<b>8,049,946</b>	2,010,177	1,056,097	<b>3,066,274</b>	<b>11,116,220</b>
<b>2017</b>	6,739,142	2,160,553	<b>8,899,695</b>	2,227,679	1,179,313	<b>3,406,992</b>	<b>12,306,687</b>
<b>2018</b>	7,086,322	2,346,767	<b>9,433,089</b>	2,361,047	1,268,272	<b>3,629,319</b>	<b>13,062,408</b>
<b>2019</b>	7,242,975	2,486,458	<b>9,729,433</b>	2,429,613	1,324,809	<b>3,754,422</b>	<b>13,483,855</b>
<b>2020</b>	7,110,889	2,498,051	<b>9,608,940</b>	2,395,688	1,305,132	<b>3,700,820</b>	<b>13,309,760</b>
<b>2021</b>	8,670,667	3,141,786	<b>11,812,453</b>	2,934,421	1,607,811	<b>4,542,232</b>	<b>16,354,685</b>
<b>2022</b>	8,062,346	2,981,224	<b>11,043,570</b>	2,736,928	1,503,977	<b>4,240,905</b>	<b>15,284,475</b>
<b>2023</b>	8,781,440	3,289,533	<b>12,070,973</b>	3,055,797	1,613,586	<b>4,669,383</b>	<b>16,740,356</b>
<b>2024</b>	\$9,717,626	\$3,585,894	<b>\$13,303,520</b>	\$3,439,860	\$1,729,403	<b>\$5,169,263</b>	<b>\$18,472,783</b>

\*The Fiduciary Net Positions are the resources accumulated and held in trust to pay benefits.

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**REPORT OF INDEPENDENT AUDITORS**

To the Members  
County Employees Retirement System  
Frankfort, Kentucky

Report on the Audit of Financial Statements*Opinion*

We have audited the accompanying financial statements of County Employees Retirement System (CERS), a component unit of the Commonwealth of Kentucky, as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise CERS's financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of CERS, as of June 30, 2024, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

*Basis for Opinion*

We conducted our audit in accordance with 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. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of CERS and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

*Responsibilities of Management for the Financial Statements*

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about CERS's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

*Auditor's Responsibilities for the Audit of the Financial Statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that

**REPORT OF INDEPENDENT AUDITORS (Continued)**

includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 CERS's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about CERS's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages XX through XX, and the defined benefit pension plan and other post-employment benefit plan supplemental schedules on pages XX through XX, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, 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 financial statements, and other knowledge we obtained during our audit of the basic



**REPORT OF INDEPENDENT AUDITORS (Continued)**

financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming opinion on the financial statements that collectively comprise CERS's basic financial statements. The accompanying schedules of administrative expense, direct investment expenses, and professional consultant fees are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules of administrative expense, direct investment expenses, and professional consultant fees are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated DATE, on our consideration of CERS's 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 solely 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 effectiveness of CERS's 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 CERS's internal control over financial reporting and compliance.

*Blue & Co., LLC*

Lexington, Kentucky  
DATE

**CERS DRAFT 12-4-2024**

# Management's Discussion & Analysis (Unaudited, \$ in Millions)

## INTRODUCTION

Management's Discussion and Analysis (MD&A) provides insight into the financial performance of CERS for the fiscal year ended June 30, 2024. It is meant to be read in the context of the accompanying Letter of Transmittal in the Introduction, the Basic Financial Statements and the Notes to those statements, the Required Supplementary Information (RSI), and additional material following this section. Together, this information provides a comprehensive picture of CERS' financial position.

CERS includes hazardous and nonhazardous defined benefit pension and OPEB plans for local government employees and nonteaching staff of local school boards and regional universities and is governed by the nine-member CERS board of Trustees (the CERS Board). Daily system activities, including investment management, benefits counseling, legal services, accounting, and payroll functions, are performed by a staff of professional employees of the Kentucky Public Pensions Authority (KPPA), which is the special-purpose government responsible for the administration of CERS.

## FINANCIAL HIGHLIGHTS AND ANALYSIS

The following are the Condensed Comparative Statements of Fiduciary Net Position and Condensed Comparative Statements of Changes in Fiduciary Net Position of CERS for the fiscal years ended June 30, 2024, and 2023:

Condensed Summary of Fiduciary Net Position				
As of June 30				
	CERS TOTAL	CERS TOTAL		
	2024	2023	CHANGE	% CHANGE
<b>ASSETS</b>				
Cash, Short-term Investments, and Receivables	\$766	\$879	\$(113)	(12.86)%
Investments, at fair value	18,309	16,337	1,972	12.07%
<b>TOTAL ASSETS</b>	<b>19,075</b>	<b>17,216</b>	<b>1,859</b>	<b>10.80%</b>
<b>TOTAL LIABILITIES</b>	<b>602</b>	<b>476</b>	<b>126</b>	<b>26.47%</b>
<b>FIDUCIARY NET POSITION</b>	<b>\$18,473</b>	<b>\$16,740</b>	<b>\$1,733</b>	<b>10.35%</b>

**CERS DRAFT 12-4-2024**

# Management's Discussion & Analysis (Unaudited, \$ in Millions)

Condensed Summary of Changes in Fiduciary Net Position For the fiscal year ended June 30				
	CERS TOTAL 2024	CERS TOTAL 2023	CHANGE	% CHANGE
<b>ADDITIONS</b>				
Member Contributions	\$248	\$227	\$21	9.25%
Employer Contributions	1,119	1,162	(43)	(3.70)%
Total Contributions	1,367	1,389	(22)	(1.58)%
Net Investment Income (Loss)	1,923	1,552	371	23.90%
Other Additions	12	7	5	71.43%
<b>TOTAL ADDITIONS</b>	<b>\$3,302</b>	<b>\$2,948</b>	<b>\$354</b>	<b>12.01%</b>
<b>DEDUCTIONS</b>				
Benefits and Refunds	1,318	1,244	74	5.95%
Other Deductions	251	248	3	1.21%
<b>TOTAL DEDUCTIONS</b>	<b>\$1,569</b>	<b>\$1,492</b>	<b>\$77</b>	<b>5.16%</b>
<b>NET INCREASE (DECREASE)</b>	<b>\$1,733</b>	<b>\$1,456</b>	<b>\$277</b>	<b>19.02%</b>
<b>FIDUCIARY NET POSITION</b>				
Beginning of the Period	\$16,740	\$15,284	\$1,456	9.53%
End of Period	\$18,473	\$16,740	\$1,733	10.35%

# Management's Discussion & Analysis (Unaudited, \$ in Millions)

## Fiduciary Net Position

The Fiduciary Net Position of CERS was \$16,740 at the beginning of the fiscal year and increased by 10.35% to \$18,473 as of June 30, 2024. The \$1,733 increase is primarily attributable to the appreciation of the fair value of investments.

## Contributions

Total contributions reported for fiscal year 2024 were \$1,367 compared to \$1,389 in fiscal year 2023, a decrease of 1.58% or \$22. This decrease was driven by a reduction of the employer contribution rates, offset by an increase in covered payroll for both the nonhazardous and hazardous plans. The combined pension and insurance employer contribution rate for the nonhazardous plan decreased by 3.45%, and the combined rate for the hazardous plan decreased by 5.90%.

## Investments

The CERS pension and insurance portfolios investment returns averaged 11.7% for the fiscal year ended June 30, 2024, compared to 10.3% for the fiscal year ended June 30, 2023. This was due to the Core Fixed Income, Specialty Credit, and Real Return portfolios significantly outpacing their benchmarks, and sizeable returns in the Public Equity portfolio. See investment results beginning on page [77](#) of the investment section.

The fair value of investments, as of June 30, 2024, was \$18,309, an increase of \$1,972 from the prior year, and net investment income was \$1,923 for the current fiscal year, compared to \$1,552 for the prior fiscal year.

Investment returns are reported net of fees and investment expenses, including carried interest. Investment fees and expenses totaled \$172 for fiscal year 2024 compared to \$133 in the prior fiscal year.

	1-year return		Fair Value of Investments			Investment fees & expenses			Net Investment Income		
	2024	2023	2024	2023	change	2024	2023	change	2024	2023	change
<b>PENSION</b>											
CERS Nonhazardous	11.6%	10.2%	\$9,640	\$8,585	\$1,055	\$91	\$71	\$20	\$1,003	\$815	\$188
CERS Hazardous	11.7%	10.3%	3,367	2,939	428	31	24	7	356	282	74
<b>INSURANCE</b>											
CERS Nonhazardous	11.8%	10.3%	3,574	3,208	366	33	25	8	380	306	74
CERS Hazardous	11.7%	10.1%	1,728	1,606	122	17	13	4	183	149	34
<b>AVERAGE / TOTAL</b>	11.7%	10.3%	\$18,309	\$16,338	\$1,971	\$172	\$133	\$39	\$1,922	\$1,552	\$370

Asset allocation is the primary driver of long-term investment performance and is designed to achieve an optimal long-term asset mix. The investment policy statement (IPS) of the CERS Board has established the following asset allocation guidelines as of June 30, 2024. See also the investment overview beginning on page [74](#) of the investment section.

**CERS DRAFT 12-4-2024**

# Management's Discussion & Analysis (Unaudited, \$ in Millions)

Asset Class	Target	Minimum	Maximum
Public Equity	50%	35%	65%
Private Equity	10%	7%	13%
Core Fixed Income	10%	8%	12%
Specialty Credit	10%	7%	13%
Cash	0%	0%	3%
Real Estate	7%	5%	9%
Real Return	13%	9%	17%
	100.00%		

## Deductions

Benefits and refunds paid for fiscal year 2024 totaled \$1,318 compared to \$1,244 in fiscal year 2023, a 5.95% increase, due to the slight increase in retired membership of the system.

## ACTUARIAL HIGHLIGHTS

The actuarial accrued liability (AAL) is the measure of the cost of benefits that have been earned to date, but not yet paid, and is calculated using the entry age normal cost method (EANC) as required by state statute. The difference in value between the AAL and the actuarial value of assets is defined as the unfunded actuarial accrued liability (UAAL).

The UAAL for CERS, from the June 30, 2024, actuarial valuation, is \$8,699 for fiscal year ended June 30, 2024, compared to \$8,736 for fiscal year ended June 30, 2023, a decrease of \$37. The UAAL for the Pension Plans decreased by \$198 due to the increase in the fair value of the assets related to favorable market conditions, and an increase in covered payroll during fiscal year 2024. The UAAL for the Insurance Plans increased by \$161, driven by the decrease in employer contribution rates for the fiscal year 2024.

CERS DRAFT 12-4-2024

# Management's Discussion & Analysis (Unaudited, \$ in Millions)

Schedule of Unfunded Actuarial Accrued Liability (UAAL)								
As of June 30								
	CERS Nonhazardous				CERS Hazardous			
	Pension		Insurance		Pension		Insurance	
	2024	2023	2024	2023	2024	2023	2024	2023
<b>Actuarial Accrued Liability (AAL)</b>	\$15,776	\$15,296	\$2,901	\$2,560	\$6,070	\$5,850	\$1,668	\$1,604
<b>Actuarial Value of Assets</b>	9,212	8,585	3,549	3,366	3,280	3,008	1,676	1,615
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	\$6,565	\$6,711	(\$648)	(\$806)	\$2,791	\$2,842	(\$8)	(\$11)
<b>Funded Ratio</b>	58.39%	56.12%	122.34%	131.48%	54.03%	51.42%	100.48%	100.70%

Please refer to Note I and the RSI of the Financial Section, as well as the Actuarial Section for more analysis of the funding status, asset values, actuarial assumptions, and actuarially determined employer contributions.

## INFORMATION REQUESTS

This financial report is designed to provide a general overview of CERS' financial position. Questions concerning any of the information provided in this report or requests for additional information should be directed to:

ATTN: Director of Accounting

Kentucky Public Pensions Authority

1260 Louisville Road

Frankfort, KY 40601

## Basic Financial Statements

Combining Statement of Fiduciary Net Position					
As of June 30, 2024 (\$ in Thousands)					
	Pension		Insurance		CERS Total 2024
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous	
<b>ASSETS</b>					
<b>CASH AND SHORT-TERM INVESTMENTS</b>					
Cash Deposits	\$276	\$26	\$103	\$22	\$427
Short-term Investments	274,855	146,718	89,412	38,115	549,100
<b>Total Cash and Short-term Investments</b>	<b>275,131</b>	<b>146,744</b>	<b>89,515</b>	<b>38,137</b>	<b>549,527</b>
<b>RECEIVABLES</b>					
Accounts Receivable	96,651	28,808	4,948	2,287	132,694
Accounts Receivable - Investments	43,044	15,644	17,711	7,252	83,651
<b>Total Receivables</b>	<b>139,695</b>	<b>44,452</b>	<b>22,659</b>	<b>9,539</b>	<b>216,345</b>
<b>INVESTMENTS, AT FAIR VALUE</b>					
Core Fixed Income	956,091	336,202	356,789	160,988	1,810,070
Public Equities	4,994,488	1,760,119	1,862,408	897,774	9,514,789
Private Equities	614,731	219,397	246,964	138,211	1,219,303
Specialty Credit	1,923,638	662,597	720,433	331,860	3,638,528
Derivatives	121	49	37	12	219
Real Return	393,377	138,312	130,977	63,385	726,051
Real Estate	507,979	161,767	183,572	100,729	954,047
Securities Lending Collateral	249,969	88,298	72,492	34,894	445,653
<b>Total Investments, at Fair Value</b>	<b>9,640,394</b>	<b>3,366,741</b>	<b>3,573,672</b>	<b>1,727,853</b>	<b>18,308,660</b>
<b>Total Assets</b>	<b>10,055,220</b>	<b>3,557,937</b>	<b>3,685,846</b>	<b>1,775,529</b>	<b>19,074,532</b>
<b>LIABILITIES</b>					
Accounts Payable	7,296	1,074	229	5	8,604
Accounts Payable - Investments	80,329	28,705	27,231	11,227	147,492
Securities Lending Collateral	249,969	88,298	72,492	34,894	445,653
<b>Total Liabilities</b>	<b>337,594</b>	<b>118,077</b>	<b>99,952</b>	<b>46,126</b>	<b>601,749</b>
<b>Total Fiduciary Net Position Restricted for Benefits</b>	<b>\$9,717,626</b>	<b>\$3,439,860</b>	<b>\$3,585,894</b>	<b>\$1,729,403</b>	<b>\$18,472,783</b>

See accompanying notes which are an integral part of these combining financial statements.

Note: The displayed fair values include investable assets held by each Plan and its associated contributions, payables, equipment and intangible assets; unlike those found in the Investment Section, which include only those investable assets held by each Plan.

**CERS DRAFT 12-4-2024****Combining Statement of Changes In Fiduciary Net Position**

For the fiscal year ended June 30, 2024 (\$ in Thousands)

	Pension		Insurance		CERS Total 2024
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous	
<b>ADDITIONS</b>					
Member Contributions	\$161,090	\$61,379	\$20,998	\$4,887	\$248,354
Employer Contributions	764,778	321,293	10,143	22,644	1,118,858
Other	-	-	10,445	1,637	12,082
<b>Total Contributions</b>	<b>925,868</b>	<b>382,672</b>	<b>41,586</b>	<b>29,168</b>	<b>1,379,294</b>
<b>INVESTMENT INCOME</b>					
Net Appreciation (Depreciation) in FV of Investments	785,266	277,925	298,813	145,631	1,507,635
Interest/Dividends	296,682	104,715	111,897	53,690	566,984
Securities Lending Income	11,380	4,084	3,296	1,484	20,244
Less: Investment Expense	61,810	20,928	23,115	11,978	117,831
Less: Performance Fees	18,517	6,226	7,456	4,103	36,302
Less: Securities Lending Fees, Expenses and Rebates	10,355	3,718	2,923	1,317	18,313
<b>Net Investment Income (loss)</b>	<b>1,002,646</b>	<b>355,852</b>	<b>380,512</b>	<b>183,407</b>	<b>1,922,417</b>
<b>Total Additions</b>	<b>1,928,514</b>	<b>738,524</b>	<b>422,098</b>	<b>212,575</b>	<b>3,301,711</b>
<b>DEDUCTIONS</b>					
Benefit Payments	940,514	343,583	-	-	1,284,097
Refunds	25,267	8,540	-	-	33,807
Administrative Expenses	26,547	2,338	943	522	30,350
Healthcare Expenses	-	-	124,794	96,236	221,030
<b>Total Deductions</b>	<b>992,328</b>	<b>354,461</b>	<b>125,737</b>	<b>96,758</b>	<b>1,569,284</b>
Net Increase (Decrease) in Fiduciary Net Position Restricted for Pension Benefits	936,186	384,063	296,361	115,817	1,732,427
<b>Total Fiduciary Net Position Restricted for Benefits</b>					
<b>Beginning of Period</b>	<b>8,781,440</b>	<b>3,055,797</b>	<b>3,289,533</b>	<b>1,613,586</b>	<b>16,740,356</b>
<b>End of Period</b>	<b>\$9,717,626</b>	<b>\$3,439,860</b>	<b>\$3,585,894</b>	<b>\$1,729,403</b>	<b>\$18,472,783</b>

See accompanying notes, which are an integral part of these combining financial statements.



## **NOTE A. Summary of Significant Accounting Policies**

### **Basis of Accounting**

CERS' combining financial statements are prepared using the accrual basis of accounting. Member contributions are recognized in the period in which contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Premium payments are recognized when due and payable in accordance with the insurance terms of the plan. Administrative and investment expenses are recognized when incurred. The net position represents the assets of the system available to pay pension benefits for retirees, active and inactive members, and health care premiums for current and future retirees..

### **Method Used to Value Investments**

Investments are reported at fair value. Fair value is the price that would be received upon selling an asset or the amount 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 Investments Note D for further discussion of fair value measurements. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the dividend date. Gain (loss) on investments includes gains and losses on investments bought and sold as well as held during the fiscal year. Investment returns are recorded in all plans net of investment fees.

### **Investment Unitization**

Within the plan accounting structure there are two primary types of accounts: Plan Accounts and Pool Accounts. Plan Accounts are the owners of the investment pool. An account is established for each plan and these accounts hold Units of Participation that represent the plan's invested value of the investment pool. Pool Accounts are accounts that hold the assets of the investment pool where all investment related activity and earnings occur. The pooled accounts are the investment strategies of the pool. Units of Participation are bought and sold as each plan contributes or withdraws cash or assets from the investment pool. The investment pool earnings are then allocated to plans utilizing a cost distribution method that allows for fluctuating prices experienced in capital markets. This involves earnings allocated to the plan accounts with an increase or decrease in cost on the Unit of Participation Holdings of the plan accounts. Correspondingly, the price of the Unit of Participation Holdings is updated to reflect change in fair value in the investment pool. Earnings are allocated based on the daily weighted average of Master Trust Units held by each plan account during each monthly earnings period. This method is commonly used when plans make multiple contributions or withdrawals from the investment pool throughout the month as it eliminates allocation distortion due to large end of month cash flows.

### **Estimates**

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

### **Capital/Intangible Assets**

Office equipment and computer software costing more than \$3,000 are valued at historical cost, capitalized when put into service, and depreciated or amortized using the straight-line method over the estimated useful life of the assets, ranging from three to ten years. Improvements, which increase the useful life of the asset, are capitalized. Maintenance and repairs are charged as an expense when incurred. As of June 30, 2023, all capital/intangible assets were fully depreciated and or amortized. No additional capital/intangible assets have been capitalized since that date.

## Accounts Receivable

Accounts Receivable consist of amounts due from employers. Management considers accounts 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.

The Investment Accounts Receivable and Investment Accounts Payable consist of investment management earnings and fee accruals, as well as all buys and sells of securities which have not closed as of the reporting date.

## Benefits

Benefits are recognized when due and payable in accordance with the terms of the plan.

## Expense Allocation

Administrative expenses are allocated to the system based on a hybrid allocation developed by management in conjunction with the CERS Board. The hybrid allocation is based on a combination of plan membership and direct plan expenses. All investment related expenses are allocated in proportion to the percentage of investment assets held by each plan.

## Component Unit

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

CERS was created by the Kentucky General Assembly on July 1, 1958, pursuant to Kentucky Revised Statutes 78.520, and the separate governing board of trustees was created in 2021. Six of the nine trustees are appointed by the Governor. The administrative budget of KPPA, which incorporates CERS administrative costs, is subject to approval by the Kentucky General Assembly. CERS employee contribution rates are set by statute and may be changed only by the Kentucky General Assembly. Employer contribution rates are determined by the CERS Board without further legislative review, and the methods used to determine the employer rates are specified in Kentucky Revised Statutes 78.635.

## Recent Accounting Pronouncements

*GASB Statement Number 100, Accounting Changes and Error Corrections* - an amendment of *GASB Statement No. 62*. The requirements of this Statement will take effect for financial statements starting with the fiscal year that ends June 30, 2024. CERS had no Accounting Changes or Error Corrections for fiscal year June 30, 2024.

*GASB Statement Number 101, Compensated Absences*. The requirements of the Statement will take effect for financial statements starting with the fiscal year that ends December 31, 2024. Management is evaluating the impact of the Statement to the financial report.

*GASB Statement Number 102, Certain Risk Disclosures*. The requirements of the Statement will take effect for financial statements for fiscal years beginning after June 15, 2024. Management is evaluating the impact of the Statement to the financial report.

*GASB Statement Number 103, Financial Reporting Model Improvements*. The requirements of the Statement are effective for fiscal years beginning after June 15, 2025, and all reporting periods thereafter. Management is evaluating the impact of the Statement to the financial report.

## Note B. Descriptions & Contribution Information

### CERS - County Employees Retirement System

CERS, for financial reporting purposes, is composed of four plans - two defined benefit pension plans, and two OPEB plans: CERS Nonhazardous pension plan, CERS Hazardous pension plan, CERS Nonhazardous insurance plan, and CERS Hazardous insurance plan. Each of the Pension and OPEB plans are legally separated with benefits only eligible to be paid for each of the respective membership groups.

The pension plans were established by Kentucky Revised Statutes 78.520, to be known as the "County Employees Retirement System" to provide retirement, disability, and death benefits to system members. The CERS Nonhazardous plan was established to provide retirement benefits to all regular full-time employees employed in positions of each participating county, city, school board, and any additional eligible local agencies electing to participate in CERS. The membership of the CERS Hazardous plan includes employees whose position is considered hazardous with principal job duties including, but are not limited to, active law enforcement, probation and parole officers, detectives, pilots, paramedics, and emergency medical technicians, with duties that require frequent exposure to a high degree of danger and also require a high degree of physical condition. Retirement benefits may be extended to beneficiaries of members under certain circumstances.

The OPEB plans are part of the Kentucky Retirement Systems Insurance Trust Fund (Insurance Fund), established by Kentucky Revised Statutes 61.701 for eligible members receiving benefits from CERS Nonhazardous and CERS Hazardous. The Insurance Fund was created for the purpose of providing a trust separate from the retirement trusts, and for the purpose of providing hospital and medical insurance benefits.

The responsibility of the plans within CERS is vested in the CERS Board of Trustees. The CERS Board of Trustees consists of nine members. Six trustees are appointed by the governor and three are elected by CERS members (active, inactive, and/or retired). The six gubernatorial appointees are chosen from lists compiled and submitted to the governor by the Kentucky League of Cities (KLC), the Kentucky Association of Counties (KACo), and the Kentucky School Boards Association (KSBA). Each of the three entities must submit three applicants with retirement experience and three applicants with investment experience as defined by statute. The governor appoints one person with retirement experience and one person with investment experience from KLC, KACo, and KSBA. All appointments by the governor are subject to Senate confirmation.

### Employer Contributions

For the fiscal year ended June 30, 2024, there were 1,120 participating employers of CERS. Participating employers are required to contribute actuarially determined rates for pension and insurance benefit contributions. The rates are established by the CERS Board based on Kentucky Revised Statute 78.635. The rates are set each year following the annual actuarial valuation as of July 1 and prior to July 1 of the succeeding fiscal year and are a percentage of each employee's creditable compensation. Administrative costs are financed through employer contributions and investment earnings.

Contribution Rate Breakdown by Plan						
As of June 30, 2024						
Plan	Pension		Insurance		Combined Total	
	Employer Contribution Rates	Actuarially Recommended Rates	Employer Contribution Rates	Actuarially Recommended Rates	Employer Contribution Rates	Actuarially Recommended Rates
CERS Nonhazardous**	23.34%	23.34%	0.00%	0.00%	23.34%	23.34%
CERS Hazardous**	41.11%	41.11%	2.58%	2.58%	43.69%	43.69%

**\*\*House Bill 362 passed during the 2018 legislative session caps CERS employer contribution rate increases up to 12% per year over the prior fiscal year for the period of July 1, 2018, to June 30, 2028.**

**CERS DRAFT 12-4-2024****Benefit Tiers:**

As of June 30, 2024, the date of the most recent actuarial valuation, membership consisted of:

<b>Membership as of June 30, 2024 (in Whole \$)</b>			
<b>Item</b>	<b>CERS Nonhazardous</b>	<b>CERS Hazardous</b>	<b>CERS Total 2024</b>
<b>Members</b>	280,996	27,522	308,518
<b>Active Membership</b>	83,956	10,548	94,504
Tier 1	21,377	2,850	24,227
Tier 2	10,755	1,866	12,621
Tier 3	51,824	5,832	57,656
<b>Average Annual Salary</b>	\$39,008	\$76,786	\$43,065
<b>Average Age</b>	47.0	37.7	46.0
<b>Retired Membership</b>	78,976	12,141	91,117
Tier 1	76,821	12,055	88,876
Tier 2	1,909	58	1,967
Tier 3	246	28	274
<b>Average Annual Benefit</b>	\$12,435	\$30,078	\$14,831
<b>Average Age</b>	71.6	63.3	70.5
<b>Inactive Members</b>	118,064	4,833	122,897
Tier 1	50,545	1,803	52,348
Tier 2	18,945	755	19,700
Tier 3	48,574	2,275	50,849

# CERS DRAFT 12-4-2024

## TIER 1:

Tier 1 plan members who began participating prior to September 1, 2008, are required to contribute 5% (Nonhazardous) or 8% (Hazardous) of their annual creditable compensation. These members are classified in the Tier 1 structure of benefits. Interest is paid each June 30 on members' accounts balance as of June 30 of the previous year 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.

## TIER 2:

Tier 2 plan members, who began participating on or after September 1, 2008, and before January 1, 2014, are required to contribute 5% (Nonhazardous) or 8% (Hazardous) of their annual creditable compensation. Further, members also contribute an additional 1% which is deposited to an account created for payment of health insurance benefits under 26 USC Section 401(h) in the Insurance Fund (see Kentucky Administrative Regulation (KAR) 105 KAR 1:420). These members are classified in the Tier 2 structure of benefits. Interest is paid each June 30 on members' accounts as of June 30 of the previous year 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% Health Insurance Contribution (HIC) to the 401(h) account is non-refundable and is forfeited.

## TIER 3:

Tier 3 plan members, who began participating on or after January 1, 2014, are 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 contribute 5% (Nonhazardous) or 8% (Hazardous) of their monthly creditable compensation which is deposited into their account, and an additional 1% which is deposited to an account created for payment of health insurance benefits under 26 USC Section 401(h) in the Insurance Fund (see 105 KAR1:420), which is not refundable. Tier 3 member accounts are also credited with an employer pay credit in the amount of 4% (Nonhazardous) or 7.5% (Hazardous) of the member's monthly creditable compensation. The employer pay credit amount is deducted from the total employer contribution rate paid on the member's monthly creditable compensation. If a vested (60 months of service) member terminates employment and applies to take a refund, the member is entitled to the members contributions (less HIC) plus employer pay credit plus interest (for both employee contributions and employer pay). If a non-vested (less than 60 months) member terminates employment and applies to take a refund, the member is entitled to receive employee contributions (less HIC) plus interest (on employee contributions only).

Interest is also paid into the Tier 3 member's account. The account currently earns 4% interest credit on the member's accumulated account balance as of June 30 of the previous year. The member's account may be credited with additional interest if the fund's five-year Geometric Average Net Investment Return (GANIR) exceeded 4%. If the member was actively employed and participating in the fiscal year, and if CERS's GANIR for the previous five years exceeds 4%, then the member's account will be credited with 75% of the amount of the returns over 4% on the account balance as of June 30 of the previous year (Upside Sharing Interest). It is possible that one plan in CERS may get an Upside Sharing Interest, while another may not.

## Upside Sharing Interest

Upside Sharing Interest is credited to both the member contribution balance and employer pay credit balance. Upside Sharing Interest is an additional interest credit. Member accounts automatically earn 4% interest annually. The GANIR is calculated on an individual plan basis.

The chart below shows the interest calculated on the members' balances as of June 30, 2023, and credited to each member's account on June 30, 2024.

(A-B) = C x 75% = D then B + D = Interest (\$ in Thousands)						
	A	B	C	D		
Plan	5-Year Geometric Average Return	Less Guarantee Rate of 4%	Upside Sharing Interest	Upside Sharing Interest X 75% = Upside Gain	Interest Rate Earned (4% + Upside)	Total Interest Credited to Member Accounts
CERS Nonhazardous	7.67%	4.00%	3.67%	2.75%	6.75%	\$35,689
CERS Hazardous	7.85%	4.00%	3.85%	2.89%	6.89%	\$13,115

## Insurance Fund Description

Eligible non-Medicare retirees are covered by the Department of Employee Insurance (DEI) plans, eligible Medicare retirees are covered through contracts with Humana through a Medicare Advantage Plan. 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, 2024, insurance premiums withheld from benefit payments for CERS's members were \$18.9 million and \$4.3 million for CERS Nonhazardous and Hazardous, respectively.

### Retiree Medical Insurance Coverage (by Plan Count) As of June 30, 2024

	Single	Couple/ Family	Parent	Medicare Without Prescription	Medicare With Prescription
<b>CERS Nonhazardous</b>	8,562	506	241	1,826	30,026
<b>CERS Hazardous</b>	1,899	3,050	477	144	4,565
<b>CERS Total</b>	<b>10,461</b>	<b>3,556</b>	<b>718</b>	<b>1,970</b>	<b>34,591</b>

*Note: Medical Insurance coverage is provided based on the member's initial participation date and length of service. Members receive either a percentage or dollar amount for insurance coverage. The counts are the number of medical plans contracted with the Department of Employee Insurance or Medicare vendor and are not representative of the number of persons.*

The amount of benefit paid by the Insurance Fund is based on years of service. For members who began participating prior to July 1, 2003, a percentage of the contribution rate is paid based on years of service with 100% of the contribution rate being paid with 20 years of service.

For members participating prior to July 1, 2003, years of service and respective percentages of the maximum benefit are as follows:

### Portion Paid by Insurance Fund As of June 30, 2024

Years of Service	Paid by Insurance Fund (%)
20+ years	100.00%
15-19 years	75.00%
10-14 years	50.00%
4-9 years	25.00%
Less than 4 years	0.00%

Since the passage of House Bill 290 (2004 Kentucky General Assembly), medical insurance benefits have been calculated differently for members who began participating on or after July 1, 2003. Once members reach a minimum vesting period of 10 years, Nonhazardous 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. Hazardous employees whose participation began on or after July 1, 2003, earn \$15 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. Upon death of a Hazardous employee, the employee's spouse receives \$10 per month for insurance benefits for each year of the deceased employee's earned Hazardous service. This dollar amount is subject to adjustment annually, which is currently 1.5%, based upon Kentucky Revised Statutes.

House Bill 1 (2008 Kentucky General Assembly) changed the minimum vesting requirement for participation in the health insurance plan to 15 years for members whose participation began on or after September 1, 2008. This benefit is not protected under the inviolable contract provisions of Kentucky Revised Statutes 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.

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The amount of benefit paid by the Insurance Fund is based on years of service. For members participating on or after July 1, 2003, the dollar amounts of the benefit per year of service are as follows:

Dollar Contribution for Fiscal Year 2024 For Member participation date on or after July 1, 2003	
	(in Whole \$)
CERS Nonhazardous	\$14.41
CERS Hazardous	\$21.62

The Insurance Fund pays 100% of the contribution rate for hospital and medical insurance premiums for the spouse and dependents of members who die as a direct result of an act in the line of duty or from a duty-related injury.

### Cost of Living Adjustment (COLA)

Prior to July 1, 2009, COLAs were provided to retirees annually equal to the percentage increase in the annual average of the consumer price index (CPI) for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. After July 1, 2009, the COLAs were to be limited to 1.50%.

In 2013, the General Assembly created a new law to govern how COLAs will be granted. Language included in Senate Bill 2 during the 2013 Regular Session states COLAs will only be granted in the future if the CERS Board determines that assets of the System are greater than 100% of the actuarial liabilities and legislation authorizes the use of surplus funds for the COLA; or the General Assembly fully prefunds the COLA through employer contributions. Kentucky Revised Statutes 78.5518 governs how COLAs may be granted for members of CERS. No COLA has been granted since July 1, 2011.

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

The provisions of GASB *Statement No. 28 Accounting and Financial Reporting for Securities Lending Transactions* require that cash received as collateral on securities lending transactions and investments made with that cash must be reported as assets on the financial statements. The non-cash collateral is not reported because the securities received as collateral are unable to be pledged or sold unless the borrower defaults. In accordance with GASB *No. 28*, CERS classifies certain other investments, not related to the securities lending program, as short-term. Cash and short-term investments consist of the following:

<b>Cash, Short-Term Investments, &amp; Securities Lending Collateral</b>		
<b>As of June 30, 2024 (\$ in Thousands)</b>		
<b>CERS Nonhazardous</b>	<b>Pension</b>	<b>Insurance</b>
Cash	\$276	\$103
Short-Term Investments	274,855	89,412
Securities Lending Collateral Invested	249,969	72,492
<b>Total</b>	<b>\$525,100</b>	<b>\$162,007</b>
<b>CERS Hazardous</b>	<b>Pension</b>	<b>Insurance</b>
Cash	\$26	\$22
Short-Term Investments	146,718	38,115
Securities Lending Collateral Invested	88,298	34,894
<b>Total</b>	<b>\$235,042</b>	<b>\$73,031</b>



## Note D. Investments

Kentucky Revised Statutes 78.790 specifically states that the CERS Board shall have the full and exclusive power to invest and reinvest the funds of the Plan(s) they govern. In addition, Kentucky Revised Statutes 78.782 require three (3) members of the CERS Board to have at least ten (10) years of investment experience as defined by the statutes. The CERS Board is required to establish the Investment Committee who is specifically charged with implementing the investment policies adopted by the CERS Board and to act on behalf of the CERS Board on all investment-related matters. The CERS Board and the Investment Committee members are required to discharge their duty to invest the funds of the Plans in accordance with the "Prudent Person Rule" as set forth in Kentucky Revised Statutes 78.790 and to manage those funds consistent with the long-term nature of the trusts and solely in the interest of the members and beneficiaries. All internal investment staff, and investment consultants must adhere to the Code of Ethics and Standards of Professional Conduct of the CFA Institute and all Board Trustees must adhere to the Code of Conduct for Members of a Pension Scheme Governing Body of the CFA Institute. The CERS Board is authorized to adopt policies. The CERS Board has adopted an Investment Policy Statement (IPS) which defines the framework for investing the assets of the Plans. The IPS is intended to provide general principles for establishing the investment goals of the Plans, the allocation of assets, employment of outside asset management, and monitoring the results of the respective Plans. A copy of the CERS Board's IPS can be found at [kyret.ky.gov](http://kyret.ky.gov). By statutes, the Board, through adopted written policies, shall maintain ownership and control over its assets held in its unitized managed custodial account. Additionally, the Investment Committee establishes specific investment guidelines that are summarized below and are included in the Investment Management Agreement (IMA) for each investment management firm.

### Equity

#### *Public Equity*

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 (ETFs); or any other type of security contained in a manager's benchmark. Each individual equity account has a comprehensive set of investment guidelines, which contains a listing of permissible investments, portfolio restrictions, and standards of performance.

#### *Private Equity*

Subject to the specific approval of the Investment Committee, Private Equity investments may be made for the purpose of creating a diversified portfolio of alternative investments under the Equity umbrella. Private Equity investments are expected to achieve attractive risk-adjusted returns and, by definition, possess a higher degree of risk with a higher return potential than traditional investments. Accordingly, total rates of return from Private Equity investments are expected to be greater than those that might be obtained from conventional public equity or debt investments. Certain investments in this category are public market securities (ETFs) with the most similar risk/return characteristics as a short-term proxy for private asset classes.

### Fixed Income

#### *Core Fixed Income*

The Core Fixed Income accounts may include, but are not limited to, the following securities: U.S. government and agency bonds; investment grade U.S. corporate credit; investment grade non-U.S. corporate credit; mortgages, including residential mortgage-backed securities; commercial mortgage-backed securities and whole loans; asset-backed securities; and, asset class relevant ETFs.

#### *Specialty Credit*

The Specialty Credit accounts may include, but are not limited to, the following types of securities and investments: non-investment grade U.S. corporate credit including both bonds and bank loans; non-investment grade non-U.S. corporate credit including bonds and bank loans; private debt; municipal bonds; non-U.S. sovereign debt; mortgages, including residential mortgage-backed securities; commercial mortgage backed securities and whole loans; asset-backed securities and emerging market debt (EMD), including both sovereign EMD and corporate EMD; and asset class relevant ETFs. Each individual Specialty Credit account shall have a comprehensive set of investment guidelines which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

### *Cash and 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 funds (STIFs), money market funds or instruments (including, but not limited to certificates of deposit, bank notes, deposit notes, bankers' acceptance 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 397 days.

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.

### **Inflation Protected**

#### *Real Estate and Real Return*

Subject to the specific approval of the corresponding Investment Committee, investments may be made to create a diversified portfolio of alternative investments. Investments are made in equity and debt real estate for the purpose of achieving the highest total rate of return possible consistent with a prudent level of risk. There may also be investments in this category that are public markets securities, such as ETFs, with similar risk/return characteristics as a short-term proxy. The purpose of the Real Return investments are to identify strategies that provide both favorable stand-alone risk-adjusted returns as well as the benefit of hedging inflation for the broader plans.

### **Investment Expenses**

In accordance with *GASB Statement No. 67 and No. 74, Financial Reporting for Pension Plans and Other Postemployment Benefit Plans other than Pension Plans*, management has exercised professional judgment to report investment expenses. It is not cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses. In fiscal year 2015, management changed Private Equity investment fees from a gross basis to a net basis. The CERS Board made the decision to enhance transparency reporting. Prior to 2015, the majority of the trusts' Private Equity investment fees were netted against investment activity which is the standard used within the Private Equity sector. Trusts' net investment income has always included these fees regardless of the reporting method used. During the 2017 Regular Session of the Kentucky General Assembly, legislators passed SB 2 which requires the reporting of all investment fees and expenses. Management continues to work with managers to enhance fee and expense reporting.

### **Derivatives**

Derivative instruments are financial contracts that have various effective dates and maturity dates and whose values depend on the values of one or more underlying assets, reference rates, or financial indices. External managers and Investment Staff are permitted to invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position. Any derivative security shall be sufficiently liquid that it can be expected to be sold at, or near, its most recently quoted market price. Examples of such derivatives include, but are not limited to the following securities: foreign currency forward contracts; futures; options; and swaps.

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

In accordance with *GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments*, CERS provides additional disclosure regarding its derivatives. The charts included represent the derivatives by types as of June 30, 2024. The chart shows the change in fair value of derivative types as well as the current fair value and notional value. The notional value is the reference amount of the underlying asset times its current spot price. The Plans hold investments in options, commitments, futures, and forward foreign exchange contracts.

**CERS DRAFT 12-4-2024****Pension and Insurance Derivative Instruments - GASB 53****As of June 30, 2024 (\$ in Thousands)**

Derivatives (by Type)	Net Appreciation (Depreciation) in Fair Value	Classification	Fair Value	Notional
<b>CERS Nonhazardous - Pension</b>				
FX Spots and Forwards	\$233	Investment	\$212	-
Futures	2,366	Investment	(91)	22,012
Commits and Options	1	Investment	-	-
Swaps	-	Investment	-	-
<b>CERS Nonhazardous - Insurance</b>				
FX Spots and Forwards	\$72	Investment	\$66	-
Futures	873	Investment	(29)	9,745
Commits and Options	1	Investment	-	-
Swaps	-	Investment	-	-
<b>CERS Hazardous - Pension</b>				
FX Spots and Forwards	\$92	Investment	\$83	-
Futures	819	Investment	(34)	7,289
Commits and Options	1	Investment	-	-
Swaps	-	Investment	-	-
<b>CERS Hazardous - Insurance</b>				
FX Spots and Forwards	\$23	Investment	\$21	-
Futures	401	Investment	(9)	5,179
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-

**Derivative Instruments Subject to Counterparty Credit Risk - GASB 53****As of June 30, 2024**

Counterparty	S & P Ratings	Pension		Insurance	
		CERS Percentage of Net Exposure	CERS Hazardous Percentage of Net Exposure	CERS Percentage of Net Exposure	CERS Hazardous Percentage of Net Exposure
Australia & New Zealand Banking Group Ltd	AA-	3.16%	1.23%	2.92%	0.92%
The Bank of America	A-	0.38%	0.13%	0.30%	0.14%
The Bank of New York Mellon Corp	A	1.38%	0.53%	1.44%	0.50%
Barclays PLC	BBB+	4.91%	1.91%	4.60%	1.47%
Brown Brothers Harriman & Co	NR	0.31%	0.11%	0.32%	0.15%
Canadian Imperial Bank of Commerce	A+	6.92%	2.70%	6.41%	2.01%
Citigroup Inc	BBB+	4.93%	1.92%	4.57%	1.43%
The Goldman Sachs Group Inc	BBB+	3.58%	1.40%	3.34%	1.06%
HSBS Holding PLC	A-	7.19%	2.81%	8.22%	2.60%
JPMorgan Chase & Co	A-	2.45%	0.94%	2.43%	0.83%
Morgan Stanley	A-	4.42%	1.73%	4.10%	1.29%
Royal Bank of Canada	AA-	4.78%	1.87%	4.73%	1.49%
State Street Corp	A	5.29%	2.06%	4.96%	1.58%
The Toronto-Dominion Bank	AA-	0.14%	0.05%	0.20%	0.09%
UBS Group AG	A-	3.99%	1.54%	5.25%	1.74%
Westpac Banking Corp	AA-	0.09%	0.03%	0.10%	0.05%
<b>TOTAL</b>		<b>53.92%</b>	<b>20.96%</b>	<b>53.89%</b>	<b>17.35%</b>

## Custodial Credit Risk for Deposits

Custodial credit risk for deposits is the risk that may occur as a result of a financial institution's failure, whereby CERS deposits may not be returned. All non-investment related bank balances are held by JP Morgan Chase and each individual account is insured by the Federal Deposit Insurance Corporation (FDIC). None of these balances were exposed to custodial credit risk as they were either insured or collateralized at required levels.

<b>Custodial Credit Risk for Deposits - GASB 40</b>	
<b>As of June 30, 2024 (\$ in Thousands)</b>	
CERS Nonhazardous Pension	\$1,835
CERS Hazardous Pension	25
CERS Nonhazardous Insurance	105
CERS Hazardous Insurance	22
Clearing	602
Excess Benefit	\$-
<i>Note: All the above balances are held at JPM Chase.</i>	

## 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, the plans would not be able to recover the value of an investment or collateral securities that are in the possession of an outside party. As of June 30, 2024, the currencies in the chart below were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in CERS's name. Below are total cash and securities held by Global Managers and consist of various currencies.

<b>Custodial Credit Risk for Investments - GASB 40</b>	
<b>As of June 30, 2024 (\$ in Thousands)</b>	
<b>CERS</b>	
Nonhazardous Pension Foreign Currency	\$1,277,569
Hazardous Pension Foreign Currency	445,111
Nonhazardous Insurance Foreign Currency	479,212
Hazardous Insurance Foreign Currency	225,064

## Investment Summary

<b>Investment Summary - GASB 40</b>	<b>Pension</b>		<b>Insurance</b>	
	<b>As of June 30, 2024 (\$ in Thousands)</b>		<b>As of June 30, 2024 (\$ in Thousands)</b>	
	<b>Nonhazardous</b>	<b>Hazardous</b>	<b>Nonhazardous</b>	<b>Hazardous</b>
<b>Type</b>	<b>Fair Value</b>		<b>Fair Value</b>	
Core Fixed Income	\$956,091	\$336,202	\$356,789	\$160,988
Public Equities	4,994,488	1,760,119	1,862,408	897,774
Private Equities	614,731	219,397	246,964	138,211
Specialty Credit	1,923,638	662,597	720,433	331,860
Derivatives	121	49	37	12
Real Return	393,377	138,312	130,977	63,385
Real Estate	507,979	161,767	183,572	100,729
Short-Term Investments	274,855	146,718	89,412	38,115
Accounts Receivable (Payable), Net	(37,285)	(13,061)	(9,520)	(3,975)
<b>Total</b>	<b>\$9,627,995</b>	<b>\$3,412,100</b>	<b>\$3,581,072</b>	<b>\$1,727,099</b>

## Credit Risk 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 Staff and by external investment management firms. All portfolio managers are required by the CERS IPS 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 Plans' debt securities portfolios are managed using the following guidelines adopted by the CERS Board:

- Bonds, notes, or other obligations issued or guaranteed by the U.S. Government, its agencies or instrumentalities are permissible investments and may be held without restrictions.
- The duration of the core fixed income portfolios combined shall not vary from that of the system's Fixed Income Index by more than +/- 25% duration as measured by effective duration, modified duration or dollar duration except when the system's Investment Committee has determined a target duration to be used for an interim basis.
- The amount invested in the debt of a single corporation shall not exceed 5% of the total fair value of CERS' assets.
- No public Fixed Income manager shall invest more than 5% of the fair value of assets held in any single issue Short-Term instrument with the exception of U.S. Government issued, guaranteed or agency obligations.

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As of June 30, 2024, the portfolio had \$670.0 million in debt securities rated below BBB- which does not include not rated (NR) or withdrawn (WR) securities.

<b>Debt Securities - GASB 40</b>				
<b>As of June 30, 2024 (\$ in Thousands)</b>				
<b>Rating</b>	<b>Pension</b>		<b>Insurance</b>	
	<b>Nonhazardous</b>	<b>Hazardous</b>	<b>Nonhazardous</b>	<b>Hazardous</b>
AAA	\$62,091	\$22,293	\$23,536	\$10,095
AA+	4,529	1,686	1,387	527
AA	6,706	2,520	2,389	892
AA-	6,415	2,353	2,300	928
A+	15,660	5,512	5,970	2,671
A	18,253	6,496	6,817	2,984
A-	37,119	13,088	13,593	6,088
BBB+	50,311	17,886	18,432	8,100
BBB	43,050	15,561	16,257	6,748
BBB-	74,276	27,579	26,404	9,432
BB+	53,465	20,475	21,543	5,624
BB	64,426	24,517	27,257	6,409
BB-	63,292	24,029	27,292	6,411
B+	45,345	16,946	19,535	5,046
B	56,098	20,460	24,126	6,622
B-	42,167	15,534	18,646	4,746
CCC+	18,825	7,249	8,688	1,788
CCC	5,768	2,236	2,608	557
CCC-	993	388	494	93
D	162	55	74	27
NR	1,758,056	591,102	641,194	332,763
WR	1	(0)	0	0
<b>Total Credit Risk Debt Securities</b>	<b>2,427,008</b>	<b>837,965</b>	<b>908,542</b>	<b>418,551</b>
Government Agencies	11,179	4,074	4,557	1,882
Government Mortgage-Backed Securities	175,995	62,108	66,866	29,931
Government Issued Commercial Mortgage Backed	2,020	710	940	424
Government Collateralized Mortgage Obligations	8,445	3,154	2,974	1,138
Government Bonds	255,082	90,788	93,343	40,922
<b>Total</b>	<b>\$2,879,729</b>	<b>\$998,799</b>	<b>\$1,077,222</b>	<b>\$492,848</b>

*Note: These ratings are based on Standard & Poor's (S&P) Global Ratings. Where S&P ratings are unavailable, equivalent Moody's Ratings are used as proxies.*

*Differences due to rounding.*

*Government Agencies, Government Mortgage-Backed Securities, Government Issued Commercial Mortgage Backed and Government Bonds are highly rated securities since they are backed by the US Government.*

*The NR reported indicate a rating has not been assigned.*

*The WR reported are ratings which have been withdrawn.*

## 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 CERS Board: bonds, notes, or other obligations issued or guaranteed by the U.S. Government, its agencies, or instrumentalities are permissible investments and may be held without restrictions. The amount invested in the debt of a single issuer shall not exceed 5% of the total fair value of the Plans' fixed income assets.

## 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 and can be measured using two methodologies: effective or 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.

Below are the fair values and modified durations for the combined fixed income securities.

Interest Rate Risk - Modified Duration - GASB 40								
As of June 30, 2024 (\$ in Thousands)								
TYPE	Pension				Insurance			
	Nonhardous		Hazardous		Nonhardous		Hazardous	
	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration
Asset Backed Securities	\$55,663	2.73	\$19,578	2.74	\$21,434	2.60	\$9,249	2.62
Financial Institutions	130,345	3.60	46,877	3.63	50,183	3.68	17,811	3.84
Collateralized Mortgage Obligations	17,676	3.08	6,543	2.96	6,051	3.06	2,366	3.43
Commercial Mortgage Backed Securities	12,129	3.82	4,475	3.79	4,553	3.85	1,822	3.93
Corporate Bonds - Industrial	402,267	4.07	150,532	4.09	164,755	4.05	46,823	4.24
Corporate Bonds - Utilities	53,291	4.95	19,254	4.93	21,630	4.87	8,385	5.01
Agencies	11,179	4.58	4,074	4.55	4,557	4.51	1,882	4.58
Government Bonds - Sovereign Debt	3,634	8.75	1,341	8.59	1,387	9.65	554	10.09
Mortgage Back Securities Pass-through - Not CMO's	175,995	6.11	62,108	6.11	66,866	6.08	29,931	6.08
Local Authorities - Municipal Bonds	20,085	8.60	7,508	8.68	7,006	8.51	2,679	8.22
Supranational - Multi-National Bonds	2,808	2.51	1,096	2.51	913	2.60	287	2.60
Treasuries	255,082	6.79	90,788	6.77	93,343	6.89	40,922	6.94
Unclassified	1,739,575	0.06	584,625	0.07	634,544	0.06	330,137	0.04
<b>Total</b>	<b>\$2,879,729</b>	<b>2.02</b>	<b>\$998,799</b>	<b>2.11</b>	<b>\$1,077,222</b>	<b>2.12</b>	<b>\$492,848</b>	<b>1.79</b>

## Foreign Currency Risk

Foreign currency risk is the risk that occurs if exchange rates adversely affect the value of a non-U.S. dollar based investment or deposit within the portfolios. Currency risk exposure, or exchange rate risk, primarily resides with the portfolios Non-U.S. equity holdings, but also affects other asset classes. CERS doesn't 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 Fair Value of Investments on the combining financial statements.

Foreign Currency Risk - GASB 40				
As of June 30, 2024 (\$ in Thousands)				
	Pension		Insurance	
	Nonhazardous	Hazardous	Nonhazardous	Hazardous
Australian Dollar	\$42,546	\$15,025	\$15,774	\$7,163
Brazilian Real	22,152	7,842	8,316	3,761
Canadian Dollar	50,075	17,572	18,286	8,438
Czech Koruna	18	6	10	5
Danish Krone	49,345	17,246	18,509	8,625
Egyptian Pound	496	173	142	66
Euro	402,942	138,570	152,038	73,743
Hong Kong Dollar	86,139	30,105	32,043	14,931
Hungarian Forint	6,125	2,140	2,185	1,018
Indian Rupee	40,975	14,395	14,604	6,719
Indonesian Rupiah	22,884	8,190	8,071	3,536
Israeli Shekel	4,344	1,518	1,625	757
Japanese Yen	158,500	55,524	59,496	27,572
Malaysian Ringgit	1,822	712	570	179
Mexican Peso	5,830	2,070	2,177	978
New Taiwan Dollar	60,225	21,048	21,985	10,244
New Zealand Dollar	(3,369)	(1,315)	(1,095)	(345)
Norwegian Krone	5,238	2,016	1,687	571
Philippine Peso	2,564	1,001	832	262
Pound Sterling	135,119	47,226	51,017	23,767
Singapore Dollar	2,954	895	1,435	829
South African Rand	7,215	2,522	2,729	1,272
South Korean Won	44,358	15,625	17,350	7,943
Swedish Krona	20,897	7,303	8,163	3,803
Swiss Franc	89,269	31,199	34,314	15,989
Thai Baht	11,702	4,090	4,298	2,003
Turkish Lira	5,067	1,771	1,915	892
UAE Dirham	1,837	642	736	343
<b>Total Foreign Investment Securities</b>	<b>1,277,269</b>	<b>445,111</b>	<b>479,212</b>	<b>225,064</b>
U.S. Dollar	8,350,726	2,966,989	3,101,860	1,502,035
<b>Total Investment Securities</b>	<b>\$9,627,995</b>	<b>\$3,412,100</b>	<b>\$3,581,072</b>	<b>\$1,727,099</b>



## Fair Value Measurement and Applications (GASB 72)

In accordance with GASB *Statement No. 72, Fair Value Measurement and Application*, CERS provides this additional disclosure regarding the fair value of its Pension and Insurance investments. CERS categorizes its fair value measurements within the fair value hierarchy established by GAAP.

### CERS defined the Fair Value Hierarchy and Levels as follows:

#### Level 1

Quoted prices (unadjusted) in an active market for identical assets or liabilities that CERS has the ability to access at the measurement date (e.g., prices derived from NYSE, NASDAQ, Chicago Board of Trade, and Pink Sheets). Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using quoted prices (unadjusted) in an active market for identical assets or liabilities that CERS has the ability to access at the measurement date.

#### Level 2

Inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include matrix pricing, market corroborated pricing and inputs such as yield curves and indices.

#### Level 3

Unobservable inputs for an asset or liability, which generally results in using the best information available for the valuation of the assets or liabilities being reported.

### Net Asset Value (NAV)

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (NAV). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed.

### Fair Value Measurements and Application (GASB 72) Pension As of June 30, 2024 (\$ in Thousands)

Asset Type	CERS Nonhazardous			Total Fair Value	CERS Hazardous			Total Fair Value
	Level				Level			
	1	2	3	1	2	3		
<b>Public Equity</b>								
Emerging Markets	\$196,538	\$-	\$-	\$196,538	\$68,689	\$-	\$-	\$68,689
US Equity	3,057,219	-	-	3,057,219	1,082,730	-	-	1,082,730
Non-US Equity	1,184,771	-	-	1,184,771	414,069	-	-	414,069
<b>Total Public Equity</b>	<b>4,438,528</b>	<b>-</b>	<b>-</b>	<b>4,438,528</b>	<b>1,565,488</b>	<b>-</b>	<b>-</b>	<b>1,565,488</b>
<b>Fixed Income</b>								
Agencies	374	2,231	-	2,605	131	784	-	915
Asset-Backed	-	47,724	-	47,724	-	16,779	-	16,779
Bank & Finance	-	60,029	120,661	180,690	-	21,707	42,028	63,735
Cash & Cash Equivalent	4,074	(158)	-	3,916	1,437	(57)	-	1,380
Corporate	313,214	455,704	543	769,461	110,191	171,056	200	281,447
Healthcare	-	20,799	-	20,799	-	7,599	-	7,599
Insurance	-	4,672	-	4,672	-	1,695	-	1,695
Municipals	-	14,370	-	14,370	-	5,303	-	5,303
Sovereign Debt	-	39,973	-	39,973	-	15,413	-	15,413
US Government	234,946	181,891	-	416,837	82,783	64,183	-	146,966
<b>Total Fixed Income</b>	<b>552,608</b>	<b>827,235</b>	<b>121,204</b>	<b>1,501,047</b>	<b>194,542</b>	<b>304,462</b>	<b>42,228</b>	<b>541,232</b>
<b>Derivatives</b>								
Futures	(91)	-	-	(91)	(34)	-	-	(34)
Foreign Exchange	212	-	-	212	83	-	-	83
<b>Total Derivatives</b>	<b>121</b>	<b>-</b>	<b>-</b>	<b>121</b>	<b>49</b>	<b>-</b>	<b>-</b>	<b>49</b>
<b>Real Return</b>	<b>143,174</b>	<b>-</b>	<b>-</b>	<b>143,174</b>	<b>49,305</b>	<b>-</b>	<b>-</b>	<b>49,305</b>
<b>Private Equity - ETF</b>	<b>1,636</b>	<b>-</b>	<b>-</b>	<b>1,636</b>	<b>13,903</b>	<b>-</b>	<b>-</b>	<b>13,903</b>
<b>Total Investments at Fair Value</b>	<b>5,136,067</b>	<b>827,235</b>	<b>121,204</b>	<b>6,084,506</b>	<b>1,823,287</b>	<b>304,462</b>	<b>42,228</b>	<b>2,169,977</b>
<b>Investments Measured at NAV</b>								
Specialty Credit	-	-	-	1,410,235	-	-	-	469,077
Private Equity	-	-	-	614,176	-	-	-	205,952
Real Estate	-	-	-	506,913	-	-	-	161,435
Real Return	-	-	-	251,561	-	-	-	89,474
Fixed Income	-	-	-	35,952	-	-	-	12,642
Non US Equity	-	-	-	582,010	-	-	-	203,741
Emerging Markets	-	-	-	3,162	-	-	-	1,105
US Equity	-	-	-	29,709	-	-	-	10,627
<b>Total Investments Measured at NAV</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,433,718</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,154,053</b>
<b>Cash and Accruals</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>109,771</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>88,070</b>
<b>Total Investments</b>	<b>\$5,136,067</b>	<b>\$827,235</b>	<b>\$121,204</b>	<b>\$9,627,995</b>	<b>\$1,823,287</b>	<b>\$304,462</b>	<b>\$42,228</b>	<b>\$3,412,100</b>

Note: The fair value hierarchies do not reflect cash and accruals this totals differ from the Investment Summaries.

Note: Cash Equivalents include publicly traded investment grade corporate bonds; variable rate demand notes; government and agency bonds; mortgages; municipal bonds; Short Term Investment Funds (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.

# CERS DRAFT 12-4-2024

The investments measured at net asset value (NAV) are presented in the chart below:

Fair Value Measurements and Application (GASB 72) Pension									
As of June 30, 2024 (\$ in Thousands)									
Asset Type	CERS Nonhazardous					CERS Hazardous			
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	
Specialty Credit <sup>(1)</sup>	\$1,410,235	\$303,756	Daily - Quarterly	90 Days	\$469,077	\$107,116	Daily - Quarterly	90 Days	
Real Estate <sup>(2)</sup>	506,913	112,865			161,435	35,705			
Real Return <sup>(3)</sup>	251,561	109,417	Daily	30 - 60 Days	89,474	43,903	Daily	30 - 60 Days	
Private Equity <sup>(4)</sup>	614,176	155,484			205,952	50,500			
Fixed Income <sup>(5)</sup>	35,952	-	Daily		12,642	-	Daily		
Non US Equity <sup>(5)</sup>	582,010	-	Daily		203,741	-	Daily		
US Equity <sup>(5)</sup>	29,709	-	Daily		10,627	-	Daily		
Emerging Markets <sup>(5)</sup>	3,162	-	Daily		1,105	-	Daily		
<b>Total Investments Measured at NAV</b>	<b>\$3,433,718</b>	<b>\$681,522</b>			<b>\$1,154,053</b>	<b>\$237,224</b>			

<sup>(1)</sup> This type includes 12 high yield specialty credit managers with multiple strategies. These managers may invest in U.S. or non-U.S. investment grade corporate credit, U.S. or non U.S. non-investment grade corporate credit, including both bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities and whole loans, asset-backed securities and emerging market debt.

<sup>(2)</sup> This type includes 11 real estate funds that invest primarily in U.S. commercial real estate; however, there is one manager who invests solely in non-U.S. commercial real estate. The fair value of the investments have been determined using the NAV per share of the Plan's ownership interest and in the partners' capital. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the funds will be liquidated over the next 7 to 10 years. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share of the Plan's ownership interest in the partners' capital. Due to restrictions in the contract, redemptions are not likely until the assets of the fund are liquidated.

<sup>(3)</sup> This type includes 15 real return managers that invest in multiple strategies such as infrastructure, agriculture, royalties, commodities, and natural resources. These investments are intended to provide both favorable risk-adjusted returns and correlation with inflation to help with the hedging of inflation for the broader plan. This group of managers also includes any hedge fund managers remaining in the portfolio which have all been terminated and are only awaiting payouts.

<sup>(4)</sup> This type includes 32 managers with multiple strategies. These investments cannot be redeemed. Instead, the investments are distributed throughout the life of the investment. Distributions are received through the liquidation of the underlying assets of the fund. It is expected that each fund will remain invested for a period of 5 to 10 years. It is probable that all of the investments in this type will be sold at an amount different from the NAV per share of the Plan's ownership interest in partners' capital. Therefore, the fair values of the investment in this asset class have been determined using recent observable transaction information.

<sup>(5)</sup> This type includes short-term commingled investment instruments issued by the US Government, Federal agencies, sponsored agencies or sponsored corporations.

### Fair Value Measurements and Application (GASB 72) Insurance As of June 30, 2024 (\$ in Thousands)

Asset Type	CERS Nonhazardous			Total Fair Value	CERS Hazardous			Total Fair Value
	Level				Level			
	1	2	3		1	2	3	
<b>Public Equity</b>								
Emerging Markets	\$73,587	\$-	\$-	\$73,587	\$34,289	\$-	\$-	\$34,289
US Equity	1,116,474	-	-	1,116,474	543,066	-	-	543,066
Non-US Equity	444,664	-	-	444,664	207,194	-	-	207,194
<b>Total Public Equity</b>	<b>1,634,725</b>	<b>-</b>	<b>-</b>	<b>1,634,725</b>	<b>784,549</b>	<b>-</b>	<b>-</b>	<b>784,549</b>
<b>Fixed Income</b>								
Agencies	296	975	-	1,271	134	440	-	574
Asset-Backed	-	18,287	-	18,287	-	7,835	-	7,835
Bank & Finance	-	21,732	45,805	67,537	-	8,760	16,414	25,174
Cash & Cash Equivalent	1,677	87	-	1,764	771	27	-	798
Corporate	112,607	187,585	163	300,355	50,752	54,658	55	105,465
Healthcare	-	7,890	-	7,890	-	2,931	-	2,931
Insurance	-	1,733	-	1,733	-	698	-	698
Municipals	-	5,204	-	5,204	-	2,071	-	2,071
Sovereign Debt	-	13,017	-	13,017	-	4,375	-	4,375
US Government	87,043	69,507	-	156,550	39,031	31,122	-	70,153
<b>Total Fixed Income</b>	<b>201,623</b>	<b>326,017</b>	<b>45,968</b>	<b>573,608</b>	<b>90,688</b>	<b>112,917</b>	<b>16,469</b>	<b>220,074</b>
<b>Derivatives</b>								
Futures	(29)	-	-	(29)	(9)	-	-	(9)
Foreign Exchange	66	-	-	66	21	-	-	21
<b>Total Derivatives</b>	<b>37</b>	<b>-</b>	<b>-</b>	<b>37</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>12</b>
<b>Real Return</b>	<b>38,048</b>	<b>-</b>	<b>-</b>	<b>38,048</b>	<b>19,608</b>	<b>-</b>	<b>-</b>	<b>19,608</b>
<b>Total Investments at Fair Value</b>	<b>1,874,433</b>	<b>326,017</b>	<b>45,968</b>	<b>2,246,418</b>	<b>894,857</b>	<b>112,917</b>	<b>16,469</b>	<b>1,024,243</b>
<b>Investments Measured at NAV</b>								
Specialty Credit	-	-	-	516,185	-	-	-	276,864
Private Equity	-	-	-	247,274	-	-	-	138,379
Real Estate	-	-	-	183,264	-	-	-	100,562
Real Return	-	-	-	93,409	-	-	-	44,024
Fixed Income	-	-	-	10,899	-	-	-	4,918
Non US Equity	-	-	-	236,625	-	-	-	117,401
Emerging Markets	-	-	-	1,142	-	-	-	532
US Equity	-	-	-	11,261	-	-	-	5,732
<b>Total Investments Measured at NAV</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,300,059</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>688,412</b>
<b>Cash and Accruals</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>34,595</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14,444</b>
<b>Total Investments</b>	<b>\$1,874,433</b>	<b>\$326,017</b>	<b>\$45,968</b>	<b>\$3,581,072</b>	<b>\$894,857</b>	<b>\$112,917</b>	<b>\$16,469</b>	<b>\$1,727,099</b>

Note: Cash Equivalents include publicly traded investment grade corporate bonds; variable rate demand notes; government and agency bonds; mortgages; municipal bonds; Short Term Investment Funds (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.

# CERS DRAFT 12-4-2024

The investments measured at net asset value (NAV) are presented in the chart below:

Fair Value Measurements and Application (GASB 72) Insurance								
As of June 30, 2024 (\$ in Thousands)								
Asset Type	CERS Nonhazardous				CERS Hazardous			
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Specialty Credit <sup>(1)</sup>	\$516,185	\$116,016	Daily - Quarterly	90 Days	\$276,864	\$60,373	Daily - Quarterly	90 Days
Real Estate <sup>(2)</sup>	183,264	38,344			100,562	21,030		
Real Return <sup>(3)</sup>	93,409	47,770	Daily	30 - 60 Days	44,024	18,173	Daily	30 - 60 Days
Private Equity <sup>(4)</sup>	247,274	62,113			138,379	33,829		
Fixed Income <sup>(5)</sup>	10,899	-	Daily		4,918	-	Daily	
Non US Equity <sup>(5)</sup>	236,625	-	Daily		117,401	-	Daily	
Emerging Markets <sup>(5)</sup>	1,142	-	Daily		532	-	Daily	
US Equity <sup>(5)</sup>	11,261	-	Daily		5,732	-	Daily	
<b>Total Investments Measured at NAV</b>	<b>\$1,300,059</b>	<b>\$264,243</b>			<b>\$688,412</b>	<b>\$133,405</b>		

<sup>(1)</sup> This type includes 12 high yield specialty credit managers with multiple strategies. These managers may invest in U.S. or non-U.S. investment grade corporate credit, U.S. or non U.S. non-investment grade corporate credit, including both bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities and whole loans, asset-backed securities and emerging market debt.

<sup>(2)</sup> This type includes 11 real estate funds that invest primarily in U.S. commercial real estate; however, there is one manager who invests solely in non-U.S. commercial real estate. The fair value of the investments have been determined using the NAV per share of the Plan's ownership interest and in the partners' capital. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the funds will be liquidated over the next 7 to 10 years. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share of the Plan's ownership interest in the partners' capital. Due to restrictions in the contract, redemptions are not likely until the assets of the fund are liquidated.

<sup>(3)</sup> This type includes 15 real return managers that invest in multiple strategies such as infrastructure, agriculture, royalties, commodities, and natural resources. These investments are intended to provide both favorable risk-adjusted returns and correlation with inflation to help with the hedging of inflation for the broader plan. This group of managers also includes any hedge fund managers remaining in the portfolio which have all been terminated and are only awaiting payouts.

<sup>(4)</sup> This type includes 34 managers with multiple strategies. These investments cannot be redeemed. Instead, the investments are distributed throughout the life of the investment. Distributions are received through the liquidation of the underlying assets of the fund. It is expected that each fund will remain invested for a period of 5 to 10 years. It is probable that all of the investments in this type will be sold at an amount different from the NAV per share of the Plan's ownership interest in partners' capital. Therefore, the fair values of the investment in this asset class have been determined using recent observable transaction information.

<sup>(5)</sup> This type includes short-term commingled investment instruments issued by the US Government, Federal agencies, sponsored agencies or sponsored corporations.

## Money-Weighted Rates of Return

In accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans*, and GASB Statement No. 74, *Financial Reporting for Post-Employment Benefit Plans Other than Pension Plans*, CERS provides this additional disclosure regarding its money-weighted rate of return for the period of June 30, 2024. The money-weighted rate of return is a method of calculating period-by-period returns on the investments that adjusts for the changing amounts actually invested. For the purposes of this statement, money-weighted rate of return is calculated as the internal rate of return on investments, net of investment expenses, then adjusted for the changing amounts actually invested.

Money-Weighted Rates of Return As of June 30, 2024				
	Pension		Insurance	
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous
2024	11.59%	11.75%	11.75%	11.67%

## Note E. Securities Lending Transactions

Kentucky Revised Statutes 61.650 and 386.020(2) permit the System to lend their securities to broker-dealers and other entities. CERS utilizes a securities lending program to temporarily lend securities to qualified agents in exchange for 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. The types of securities lent include U.S. Treasuries, U.S. Agencies, U.S. Corporate Bonds, U.S. Equities, Global Fixed Income Securities, and Global Equities Securities. Securities Lending transactions are accounted for in accordance with GASB 28. The net earnings for CERS was \$1.9M.

The IPS does not address any restrictions on the amount of loans that can be made. As of June 30, 2024, CERS had no credit risk exposure to borrowers because the collateral amounts received exceeded the amounts out on loan. The contracts with the custodial bank require them to indemnify CERS 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. BNY Mellon invests cash collateral as permitted by state statute and CERS Board policy. The agent, BNY Mellon, of the Funds cannot pledge or sell collateral securities received unless the borrower defaults. CERS maintains a conservative approach to investing the cash collateral with BNY Mellon, emphasizing capital preservation, liquidity, and credit quality.

Cash collateral is invested in guaranteed, short-term obligations of the U.S. government, select government agencies and repurchase agreements with qualified agents. CERS cannot pledge or sell collateral securities received unless the borrower defaults. BNY Mellon as the lending agent also indemnifies CERS from any financial loss associated with a borrower's default and collateral inadequacy.

As of June 30, 2024, the average days to maturity for loans was one day, and the weighted average investment maturity of cash collateral investments was one day. CERS had no credit risk exposure to borrowers because the amounts owed to borrowers exceeded the amounts the borrowers owed the System and no losses resulted during the period.

Security lending programs can entail interest rate risk and credit risk. CERS minimizes interest rate risk by limiting the term of cash collateral investments to several days. The credit risk is controlled by investing cash collateral in securities with qualities similar to the credit worthiness of lent securities.

As of June 30, 2024, the cash collateral received for the securities on loan for CERS was \$445.7 million. The securities non-cash collateral received a total of \$190.4 million. The collateral volume of the total underlying securities was \$636.1 million for CERS.

Securities Lending Cash Collateral				
As of June 30, 2024, (\$ in Thousands)				
CERS Nonhazardous		CERS Hazardous		CERS
Pension	Insurance	Pension	Insurance	Total
\$249,969	\$72,492	\$88,298	\$34,894	\$445,653

## Note F. Risk of Loss

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CERS and KPPA are 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 Office of Claims and Appeals is vested with full power and authority to investigate, hear proof, and 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 \$250,000 for a single claim and \$400,000 in aggregate per occurrence. Awards and a pro rata share of the operating cost of the Office of Claims and Appeals are paid from the fund of the agency having a claim or claims before the Office of Claims and Appeals.

Claims against the CERS Board and the KPPA Board, or any of its staff as a result of an actual or alleged breach of fiduciary duty, are self-insured effective May 26, 2019.

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. All medical expenses related to a work injury or illness are paid based upon appropriate statutory and regulatory reductions, 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

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In the normal course of business, CERS is involved in litigation concerning the right of participants, or their beneficiaries, to receive benefits. CERS does not anticipate any material losses for the System as a result of the contingent liabilities. CERS is involved in other litigation; therefore, please see Note K. Litigation, for further information.

## Note H. Income Tax Status

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The Internal Revenue Service (IRS) has ruled that CERS qualifies under Section 401(a) of the Internal Revenue Code are, generally, not subject to tax. CERS is subject to income tax on any unrelated business income (UBI).

## Note I. Financial Report for (GASB 67) Pension

### Plans and (GASB 74) Postemployment Benefit Plans

The following details actuarial information and assumptions utilized in determining the unfunded (overfunded) actuarial accrued liabilities for CERS. Please note that calculations for Total Pension Liability (TPL), net fiduciary position, Net Pension Liability (NPL), total OPEB liability, net OPEB fiduciary position, and net OPEB liability (NOL) are reported in the Plans' Required Supplementary Information (RSI) beginning on page 59 are based on June 30, 2023, actuarial valuations, rolled forward to June 30, 2024. The prior year valuations are used as the basis for the roll forward method and are applied to complete the current year pension and OPEB valuations as of the measurement date, June 30, 2024, in accordance with GASB *Statement No. 67*, paragraph 37, and GASB *Statement No. 74*, paragraph 41.

#### Financial Report for Pension Plan (GASB 67)

##### Basis of Calculations

The System Actuary, Gabriel, Roeder, Smith & Co. (GRS), completed reports by plan in compliance with GASB *Statement No. 67 Financial Reporting for Pension Plans*. The TPL, NPL, and sensitivity information are based on an actuarial valuation date of June 30, 2023. The TPL was rolled forward from the valuation date to the Plans' fiscal year ended June 30, 2024, using generally accepted actuarial principles. Information disclosed for years prior to June 30, 2017, were prepared by the prior actuary. GRS will provide separate reports at a later date with additional accounting information determined in accordance with GASB *Statement No. 68, Accounting and Financial Reporting for Pensions*.

##### Assumptions

Below is a summary of the principal assumptions used for the June 30, 2023, actuarial valuation:

- Investment Return - 6.50% for all plans,
- Inflation - 2.50% for all plans,
- Salary Increases - 3.30% to 10.30% for CERS Nonhazardous, 3.55% to 19.05% for CERS Hazardous, varies by service.
- Payroll Growth - 2% for all plans,
- Mortality - System-specific mortality table based on mortality experience from 2013 -2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023.

##### Plan Provisions

There have been no assumption, method or plan provision changes that would materially impact the total pension liability since June 30, 2023. It is our opinion that these procedures for determining the information contained in these reports are reasonable, appropriate, and comply with applicable requirements under GASB No. 67.

##### Discount Rate

A single discount rate of 6.50% for the nonhazardous and hazardous plans was used to measure the total pension liability for the fiscal year ended June 30, 2024. This single discount rate was based on the expected rate of return on pension plan investments for each plan. Based on the stated assumptions and the projection of cash flows as of each fiscal year ended, the pension plan's fiduciary net position and future contributions were projected to be sufficient to finance all the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability for each plan.

The projection of cash flows used to determine the single discount rate must include an assumption regarding actual employer contributions made each future year. Future contributions are projected assuming that the entire actuarially determined employer contribution is received by each plan each future year, calculated in accordance with the current funding policy.



The provisions of House Bill 362 (passed during the 2018 legislative session) are still in effect and limit the increases to the employer contribution rates to 12% over the prior fiscal year through June 30, 2028. However, contribution rates are not currently projected to increase by more than 12% in any given future year. Therefore, for the purposes of this calculation, the provisions of House Bill 362 do not impact the projected employer contributions.

### Additional health care contributions (IRC 401(h) Subaccount)

Based on guidance issued by GASB in connection with GASB *Statement No. 74*, the 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount is considered as an Other Post Employment Benefit (OPEB) asset. As a result, the reported pension fiduciary net positions as of June 30, 2017, and later are net of the 401(h) asset balance.

### Additional Disclosures

This report is based upon information furnished to us by the Kentucky Public Pensions Authority (KPPA), which includes benefit provisions, membership information, and financial data. GRS did not audit this data and information, but GRS did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2023" for additional discussion of the nature of the actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. These reports should be considered together as a complete report for the fiscal year ended June 30, 2024.

### Financial Reporting for Postemployment Benefit Plans (GASB 74)

GRS completed reports by plan in compliance with GASB *Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other than Pension Plans* for the fiscal year ended June 30, 2024. GRS will provide separate reports at a later date with additional accounting information determined in accordance with GASB *Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

### Basis of Calculations

The total OPEB liability, net OPEB liability (NOL), and sensitivity information are based on an actuarial valuation date of June 30, 2023. The total OPEB liability was rolled forward from the valuation date to the plan's fiscal year ended June 30, 2024, using generally accepted actuarial principles.

### Assumptions

Below is a summary of the principal assumptions used for the June 30, 2023 actuarial valuation:

- Investment Return - 6.50%
- Inflation - 2.50%
- Salary Increases - 3.30% to 10.30% for CERS Nonhazardous, 3.55% to 19.05% for CERS Hazardous
- Payroll Growth - 2.00%
- Mortality - System-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023.
- Healthcare Trend Rates
  - Pre-65 - Initial trend starting at 6.80% on January 1, 2025, gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2024 premiums were known at the time of the valuation and were incorporated into the liability measurement.
  - Post-65 – Initial trend starting at 8.50% on January 1, 2025, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 11 years. The 2024 premiums were known at the time of the valuation and were incorporated into the liability measurement.

The discount rate used to calculate the total OPEB liability increased from 5.93% to 5.99% for the nonhazardous plan and from 5.97% to 6.02% for the hazardous plan (see further discussion on the calculation of the single discount rate later in this document). The assumed increase in future health care costs, or trend assumption, was reviewed during the June 30, 2023, valuation process and was updated to better reflect the plan's anticipated long-term healthcare cost increases. In general, the updated assumption is assuming higher future increases in pre-Medicare healthcare costs.

The Total OPEB Liability as of June 30, 2024, is determined using these updated assumptions. It is GRS' opinion that these procedures for determining the information contained in these reports are reasonable, appropriate, and comply with applicable requirements under GASB 74.

### Plan Provisions

There have been no plan provision changes that would materially impact the total OPEB liability since June 30, 2023.

### Implicit Employer Subsidy for non-Medicare retirees

The fully-insured premiums paid for the Kentucky Employees' Health Plan are blended rates based on the combined experience of active and retired members. Because the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees. GASB No. 74 requires that the liability associated with this implicit subsidy be included in the calculation of the Total OPEB Liability.

### Discount Rates

The following single discount rates were used to measure the total OPEB liability for the fiscal year ended June 30, 2024, and June 30, 2023.

PLAN	FISCAL YEAR 2024	FISCAL YEAR 2023	CHANGE IN RATE
CERS Nonhazardous	5.99%	5.93%	0.06%
CERS Hazardous	6.02%	5.97%	0.05%

Single discount rates of 5.99% for the nonhazardous plan and 6.02% for the hazardous plan were used to measure the total OPEB liability for the fiscal year ended June 30, 2024. They are based on the expected rate of return on OPEB plan investments of 6.50% and a municipal bond rate of 3.97%, as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2024.

Based on the stated assumptions and the projection of cash flows as of each fiscal year ended, the plan's fiduciary net position and future contributions were projected to be sufficient to finance the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on insurance plan investments was applied to all periods of the projected benefit payments paid from the retirement system. However, the cost associated with the implicit employer subsidy is not currently being included in the calculation of the plan's actuarial determined contributions, and it is our understanding that any cost associated with the implicit subsidy will not be paid out of the plan's trust. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy.

The projection of cash flows used to determine the single discount rate must include an assumption regarding actual employer contributions made each future year. Future contributions are projected assuming that the entire actuarially determined employer contribution is received by each plan each future year, calculated in accordance with the current funding policy.

### Additional health care contributions (IRC 401(h) Subaccount)

Based on guidance issued by GASB in connection with GASB Statement No. 74, the 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount is considered an OPEB asset. As a result, the reported fiduciary net position includes these 401(h) assets. Additionally, these member contributions and associated investment income and administrative expenses are included in the reconciliation of the fiduciary net position.

### Additional Disclosures<sup>1</sup>

This report is based upon information furnished to us by KPPA, which includes benefit provisions, membership information, and financial data. GRS did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2023," for additional discussion of the nature of the actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. These reports should be considered together as a complete report for the fiscal year ended June 30, 2024.

<sup>1</sup> Note: Data and information regarding GASB 67 and GASB 74 reporting was provided by GRS Retirement Consulting.

## Target Asset Allocation

The long-term (10-year) expected rates of return were determined by using a building block method in which best estimated ranges of expected future real rates of return were developed for each asset class. The ranges were combined by weighting the expected future real rate of return by the target asset allocation percentage. The target allocation and best estimates of arithmetic real rate of return for each major asset class are summarized in the tables on the following page.

<b>Target Asset Allocation - CERS Pension and Insurance</b>		
<b>As of June 30, 2024</b>		
<b>Allocations apply to CERS Pension and Insurance Plans</b>		
<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
<b>Equity</b>		
Public Equity	50.00%	4.15%
Private Equity	10.00%	9.10%
<b>Fixed Income</b>		
Core Fixed Income	10.00%	2.85%
Specialty Credit	10.00%	3.82%
Cash	0.00%	1.70%
<b>Inflation Protected</b>		
Real Estate	7.00%	4.90%
Real Return	13.00%	5.35%
<b>Total</b>	<b>100.00%</b>	
<i>NOTE: Minor deviations are expected between the actuarial assumed rate of return and the expected rate of return reported in the above charts. The actuarial assumed rates of return are based on a review of economic assumptions completed periodically as warranted but not longer than every 2 years; whereas, the expected rate of return is calculated annually for GASB purposes by taking the current asset allocation and applying the most relevant long term market expectations (March 2024) for each asset class.</i>		

**CERS DRAFT 12-4-2024****Sensitivity of the NPL to Changes in the Discount Rate Fiscal Year 2024  
As of June 30, 2024 (\$ in Thousands)**

	CERS	
	Nonhazardous	Hazardous
	<b>Current 6.50%</b>	<b>Current 6.50%</b>
1% Decrease	\$7,709,743	\$3,311,189
Current Discount Rate	5,980,423	2,572,006
1% Increase	\$4,545,544	\$1,968,503

**Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate****As of June 30, 2024 (\$ in Thousands)**

	CERS	
	Nonhazardous	Hazardous
	<b>Single 5.99%</b>	<b>Single 6.02%</b>
<b>Sensitivity of the Net OPEB Liability to Changes in the Discount Rate</b>		
1% Decrease	\$233,889	\$335,224
Single Discount Rate	(172,980)	121,303
1% Increase	\$(515,076)	\$(57,470)
<b>Sensitivity of the Net OPEB Liability to Changes in the Current Healthcare Cost Trend Rate</b>		
1% Decrease	\$(416,169)	\$(18,804)
Current Healthcare Cost Trend Rate	\$(172,980)	121,303
1% Increase	\$110,318	\$285,057

**Development of Single Discount Rate for OPEB****As of June 30, 2024**

	CERS	
	Nonhazardous	Hazardous
Single Discount Rate	5.99%	6.02%
Long-Term Expected Rate of Return	6.50%	6.50%
Long-Term Municipal Bond Rate <sup>(1)</sup>	3.97%	3.97%

Note: 1. Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2024.

**CERS DRAFT 12-4-2024****Schedule of Employers' NPL - CERS Nonhazardous  
As of June 30, 2024 (\$ in Thousands)**

Total Pension Liability (TPL)	\$15,576,667
Plan Fiduciary Net Position	9,596,244
Net Pension Liability	\$5,980,423
Ratio of Plan Fiduciary Net Position to TPL	61.61%
Covered Payroll <sup>(1)</sup>	\$3,259,999
Net Pension Liability as a Percentage of Covered Payroll	183.45%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

**Schedule of Employers' NPL - CERS Hazardous  
As of June 30, 2024 (\$ in Thousands)**

Total Pension Liability (TPL)	\$5,988,903
Plan Fiduciary Net Position	3,416,897
Net Pension Liability	\$2,572,006
Ratio of Plan Fiduciary Net Position to TPL	57.05%
Covered Payroll <sup>(1)</sup>	\$775,638
Net Pension Liability as a Percentage of Covered Payroll	331.60%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

**Schedule of the Employers' Net OPEB Liability - CERS Nonhazardous  
As of June 30, 2024 (\$ in Thousands)**

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$3,534,297	\$3,707,277	\$ (172,980)	104.89%	\$3,259,999	(5.31)%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information. For 2024, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE 2024.

**Schedule of the Employers' Net OPEB Liability - CERS Hazardous  
As of June 30, 2024 (\$ in Thousands)**

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$1,873,669	\$1,752,366	\$121,303	93.53%	\$796,792	15.22%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information.

## Note J. Legislation

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### 2024 Regular Session

The 2024 Regular Session of the Kentucky General Assembly adjourned on Monday, April 15, 2024. Highlights of the Session include the following:

#### **BILLS OF DIRECT INTEREST TO CERS MEMBERS AND RETIREES**

##### **House Bill 99: The KPPA Housekeeping bill**

**House Bill 99** amends various sections of Kentucky Revised Statutes Chapters 16, 61, and 78 to make technical and housekeeping changes relating to administration of the system, including renaming the position of internal auditor to Chief Auditor, providing that the death benefit of \$5,000 payable to a beneficiary of the member is not subject to garnishment, unless the beneficiary is the member's estate or there is an overpayment of benefits or outstanding balance owed to the system, makes modifications to the initial disability application review process, and other technical changes. "Housekeeping bill" is a slang term for typically noncontroversial legislation that "cleans up" statutes by clarifying their language or otherwise updating their content to align with changes in relevant federal or state law.

##### **House Bill 354: Retiree health insurance reimbursements for school district employees**

**House Bill 354** requires that health insurance reimbursements for retirees who participated in a hazardous position prior to July 1, 2003, and are reemployed by a local school board be paid by the Department of Education instead of the local school board.

##### **House Bill 635: Actuarial analysis assumptions and methods**

**House Bill 635** implements additional reporting requirements for actuarial analyses and expands the required supporting documentation and explanations of findings for fiscal and corrections impact statements.

## Note K. Litigation

Many cases below were filed prior to 2021 when the KRS Board of Trustees was separated into a CERS Board, and a reconstituted KRS Board as described in the Transmittal Letter. The use of the Kentucky Retirement Systems in these cases apply to both CERS and KRS.

### Mayberry

In December 2017, certain members and beneficiaries of the Kentucky Retirement Systems filed litigation (Mayberry et al v. KKR et al) against certain Hedge Fund Sellers, Investment, Actuarial and Fiduciary Advisors, Annual Report Certifiers, and certain (past and present) Kentucky Retirement Systems' Trustees and Officers in Franklin Circuit Court. The litigation alleges (in summary) that actuarial assumptions, fees, statements and disclosures harmed the financial status of the Retirement Systems. While Kentucky Retirement Systems is designated a "Defendant," that designation is a technical formality in so much as Kentucky Retirement Systems is a "nominal defendant." On April 20, 2018, the Kentucky Retirement Systems and the plaintiffs filed a joint notice with the Court advising that Kentucky Retirement Systems does not intend to challenge its status as a "nominal defendant." Since then, the Franklin Circuit Court ruled on various Defendants' Motions to Dismiss, denying nearly all of them. On January 10, 2019, KKR, Henry Kravis and George Roberts (collectively, "KKR Parties") amended their Answer to assert cross claims against Kentucky Retirement Systems. Certain Officer and Trustee Defendants appealed the denial of their Motion to Dismiss on immunity grounds to the Court of Appeals, and that appeal was transferred to the Kentucky Supreme Court. The hedge fund defendants filed a Petition for Writ of Prohibition in the Court of Appeals, arguing the Plaintiffs lacked standing to bring the action. That Petition was granted on April 23, 2019. Plaintiffs promptly appealed the Court of Appeals' decision to the Supreme Court of Kentucky. On July 9, 2020, the Supreme Court of Kentucky issued an Opinion stating that the plaintiffs, as beneficiaries of a defined-benefit plan who have received all of their vested benefits so far and are legally entitled to receive their benefits for the rest of their lives, do not have a concrete stake in this case and therefore lack standing to bring this claim. The case was remanded to the circuit court with directions to dismiss the complaint. Thereafter, plaintiffs filed a motion seeking to amend their complaint to add parties (Tier 3 members of the Retirement Systems) and claims that would purportedly correct the standing defect identified by the Supreme Court of Kentucky. Furthermore, the Attorney General of the Commonwealth of Kentucky sought leave to intervene in this action through a motion filed July 20, 2020, and an Intervening Complaint on July 22, 2020. The Defendants filed motions seeking to have the case dismissed. On December 28, 2020, Franklin Circuit Court issued an Order dismissing the Complaint filed by the Plaintiffs, denied Plaintiffs' Motion to file a Second Amended Complaint, and granted the Office of the Attorney General's Motion to Intervene. A variety of additional motions and pleadings were filed, including an original action by the Tier 3 Group. This original action is still in the initial stages and is pending with Franklin Circuit Court. (Tia Taylor, et al. v KKR & Co. L.P., et al.) On January 12, 2021, Franklin Circuit Court issued a scheduling Order granting the Attorney General until February 1, 2021 to file an Amended Intervening Complaint, granting the Tier 3 Group until February 11, 2021 to file a Motion to Intervene in this action. Additional extension orders were granted for the Attorney General intervention. The Attorney General filed an Amended Complaint on May 24, 2021. On June 14, 2021, the Tier 3 Group's Motion to Intervene in the Attorney General action was denied. In the spring of 2022, Franklin Circuit Judge Phillip Shepherd recused and this matter was assigned to Judge Thomas Wingate.

Following the Attorney General's intervention, the Defendants challenged the intervention as beyond the scope of the remand from the Supreme Court in July of 2020. Franklin Circuit Court denied that motion and the matter was on appeal when this case was assigned to Judge Thomas Wingate. Judge Wingate placed the matter in abeyance pending a decision on whether the Attorney General's intervention was proper. The Court of Appeals held that the Attorney General should not have been allowed to intervene and the Attorney General is currently seeking Discretionary Review by the Supreme Court.

Simultaneously with his intervention, the Attorney General filed a separate, stand-alone case with an identical complaint to protect against the possibility that his intervention would be deemed improper. The Defendants filed motions to dismiss the Attorney General's stand-alone case based on various legal theories. Franklin Circuit Court denied the majority of these motions but granted the motions to dismiss on behalf of R.V. Kuhns and Cavanaugh Macdonald, KRS' actuary and investment consultant during the relevant timeframe. This case is still proceeding.

A number of related cases have also developed based on issues raised in the above referenced Mayberry action. There has been an action filed by a number of the Trustees and Officers named in Mayberry seeking reimbursement by Kentucky Retirement Systems of legal fees. Kentucky Retirement Systems has also filed an action against Hallmark Specialty Insurance seeking a declaratory judgment that Hallmark has a duty to defend and indemnify Kentucky Retirement Systems in the Mayberry action. Two of the hedge fund Defendants in the Mayberry action have also filed an action in the United States District Court for the Eastern District of Kentucky naming individual members of the former KRS Board of Trustees as Defendants. This action is seeking a judgment declaring that the Trustees violated Plaintiffs' right to due process as well as an award of costs and attorneys' fees. Three actions

have also been filed in Delaware regarding the Mayberry action. One filed by Prisma Capital Partners and one filed by Blackstone Alternative Asset Management alleged breaches of warranties, representations and more relating to the Subscription Agreements signed by the Kentucky Retirement Systems. The third was filed by Prisma Capital Partners against the Daniel Boone Fund, LLC. Additionally, an action has been filed by PAAMCO against Kentucky Retirement Systems in California also alleging breaches of warranties, representations and more relating to the Subscription Agreements signed by the Kentucky Retirement Systems. Finally, on August 2, 2021, Blackstone Alternative Asset Management, L.P. (BAAM) filed an action against the Kentucky Public Pensions Authority, the Board of Trustees of the Kentucky Retirement Systems, the Board of Trustees of the County Employees Retirement System, the Kentucky Retirement Systems Insurance Fund, and the Kentucky Retirement Systems Pension Fund (collectively “Defendants”) for breach of contract. The Defendants filed a Motion to Dismiss on September 8, 2021. The last of these additional actions, the suit filed by BAAM, was dismissed by Franklin Circuit Court. The Court of Appeals upheld the dismissal, and BAAM is seeking Discretionary Review by the Supreme Court. The rest of these cases remain active in various stages of litigation.

### Bayhills

In 2018, Kentucky Retirement Systems sued Bayhills for breach of contract seeking to terminate Bayhills as investment managers. Kentucky Retirement Systems filed the suit in Franklin Circuit Court, but Bayhills removed it to federal district court. Kentucky Retirement Systems successfully had the case remanded back to state court. The case is now pending before Franklin Circuit Court. The Court entered an injunction preventing Bayhills from paying themselves management and other fees during the litigation. Bayhills has appealed this ruling to the Court of Appeals. The Court of Appeals and the Kentucky Supreme Court denied Bayhills their requested relief on appeal. Litigation is still ongoing.

### Kentucky State Lodge & Linda Cook

In January and February 2022, two complaints were filed on behalf of specific named plaintiffs and others similarly situated based on the same facts that gave rise to the former River City Fraternal Order of Police (FOP) complaint. KPPA was aware that the River City FOP case impacted more individuals than the named plaintiffs and had been working on legislative and regulatory solutions. Legislation passed by the 2022 General Assembly allows individuals negatively impacted by the Medicare Secondary Payer Act to receive their health insurance through the Kentucky Employees Health Plan, and KPPA has promulgated a regulation to reimburse those individuals who had to pay for health insurance consistent with the Sixth Circuit Opinion. The two lawsuits from January and February are currently in the discovery phase concerning class certification. In addition to the MSPA issue, the two new suits allege that requiring Medicare eligible members to pay for Medicare Part B violates their right to “free” health insurance under their inviolable contract.

Franklin Circuit Court denied class certification for the purpose of monetary damages but granted for declaratory or injunctive relief. Both parties appealed various portions of the Circuit Court order. After filing the appeal, the plaintiffs filed a Motion to Alter, Amend, or Vacate with the Circuit Court. The Court of Appeals placed the appeals in abeyance pending the resolution of that motion.

## Note L. Reciprocity Agreement

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In accordance with Kentucky Revised Statutes 78.5536, CERS has reciprocity agreements with Kentucky Employees Retirement System (KERS), State Police Retirement System (SPRS), Teachers’ Retirement System of Kentucky (TRS), and Judicial Form Retirement System (JFRS) for the payment of insurance benefits for those members who have creditable service in CERS, KERS, SPRS, TRS and/or JFRS systems.



# Note M. Reimbursement of Retired Re-Employed Health Insurance, Active Member Health Insurance Contributions, and Retired Re-Employed Employer Contributions

## Reimbursement of Retired Re-Employed Health Insurance

If a retiree is re-employed in a regular full-time position and has chosen health insurance coverage through CERS, the employer is required to reimburse CERS for the health insurance premium paid on the retiree’s behalf, not to exceed the cost of the single premium rate. Exceptions for retired members who re-employ as a police officer, sheriff or school resource officer exist which may exempt employers from paying employer contributions and health insurance reimbursements if certain requirements are met. For the fiscal year ended June 30, 2024, the reimbursement totaled \$9.5 million.

## Active Member Health Insurance Contributions

For new plan participants after August 31, 2008, an active member contribution of 1% in addition to the member pension contribution is required. This 1% is applicable to all Nonhazardous and Hazardous plans, and reported in the Insurance Fund. For the fiscal year ended June 30, 2024, members paid into the Insurance Fund \$25.6 million.

## Retired Re-Employed Employer Contributions

Employers are required to report employer contributions on retired members who are employed in a regular full-time position. These members are referred to as retired re-employed members. These are reported within the employer contributions on the financial statements. Exceptions for retired members who re-employ as a police officer, sheriff or school resource officer exist which may exempt employers from paying employer contributions and health insurance reimbursements if certain requirements are met.

Retired Reemployed Healthcare Contributions As of June 30, 2024 (\$ in Thousands)	CERS	CERS	Total
	Nonhazardous	Hazardous	
Amount	\$7,378	\$2,088	\$9,466

Member Health Insurance Contributions As of June 30, 2024 (\$ in Thousands)	CERS	CERS	Total
	Nonhazardous	Hazardous	
Amount	\$20,650	\$4,979	\$25,629

## Note N. Prisma Daniel Boone Fund

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The funds invested with Prisma Daniel Boone Fund continue to be held in a contingency reserve to cover potential obligations arising from the Mayberry Action (see Note K for details of Mayberry Case). The total reported in reserve as of June 30, 2024, is \$77.1 million for the Pension Plans and \$29.9 million for the Insurance Plans. This is based on the May 31, 2024, report because Real Return managers are reported on a one month lag.

## Note O. Subsequent Events

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Management has evaluated the period June 30, 2024, to December 5, 2024, (the date the combining financial statements were available to be issued) for items requiring recognition or disclosure in the combining financial statements.

## Note P. Related Party

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KPPA is the special-purpose government responsible for the day-to-day administration of CERS, and the Kentucky Retirement Systems (KRS), comprising the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS).

Kentucky Revised Statute 61.505 11(a) requires all expenses incurred by or on behalf of KPPA to be prorated, assigned, or allocated to the Systems that KPPA administers. KPPA works closely with the CERS Board and KRS Boards of Trustees to develop an allocation method that takes into consideration membership, assets under management, system specific costs, and statutory requirements.

The expenses incurred by KPPA on behalf of the Systems are administrative costs which include salaries and benefits of professional employees providing investment management, benefits counseling, legal services, information technology services, accounting, and payroll functions. In addition, administrative costs include operational payments for hardware, software, utilities, rent, as well as contract and consulting costs with legal, audit and actuarial service providers. The administrative budget of KPPA is funded with restricted funds of CERS and KRS and is subject to approval by the Kentucky General Assembly through the biennial budget process.

Total administrative costs incurred by KPPA for the fiscal year ended June 30, 2024, were \$47.3 million, of which \$30.4 million was allocated to CERS based on the hybrid allocation developed by the KPPA Board, the CERS Board, and the KRS Board.

# REQUIRED SUPPLEMENTARY INFORMATION INCLUDING GASB 67 AND 74

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**CERS DRAFT 12-4-2024****Schedule of Employers' NPL - CERS Nonhazardous Pension  
As of June 30 (\$ in Thousands)**

Year	Total Pension Liability (TPL)	Plan Fiduciary Net Position	Net Pension Liability	Ratio of Plan Fiduciary Net Position to TPL	Covered Payroll <sup>(1)</sup>	Net Pension Liability as a Percentage of Covered Payroll
2024	\$15,576,667	\$9,596,244	\$5,980,423	61.61%	\$3,259,999	183.45%
2023	15,089,106	8,672,597	6,416,509	57.48%	2,966,567	216.29%
2022	15,192,599	7,963,586	7,229,013	52.42%	2,835,173	254.98%
2021	14,941,437	8,565,652	6,375,785	57.33%	2,446,612	260.60%
2020	14,697,244	7,027,327	7,669,917	47.81%	2,462,752	311.44%
2019	14,192,966	7,159,921	7,033,045	50.45%	2,424,796	290.05%
2018	13,109,268	7,018,963	6,090,305	53.54%	2,454,927	248.08%
2017	12,540,545	6,687,237	5,853,308	53.32%	2,376,290	246.32%
2016	11,065,013	6,141,395	4,923,618	55.50%	2,417,187	203.69%
2015	\$10,740,325	\$6,440,800	\$4,299,525	59.97%	\$2,296,716	187.20%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

**Schedule of Employers' NPL - CERS Hazardous Pension  
As of June 30 (\$ in Thousands)**

Year	Total Pension Liability (TPL)	Plan Fiduciary Net Position	Net Pension Liability	Ratio of Plan Fiduciary Net Position to TPL	Covered Payroll <sup>(1)</sup>	Net Pension Liability as a Percentage of Covered Payroll
2024	\$5,988,903	\$3,416,897	\$2,572,006	57.05%	\$775,638	331.60%
2023	5,731,148	3,035,192	2,695,956	52.96%	714,837	377.14%
2022	5,769,691	2,718,234	3,051,457	47.11%	666,346	457.94%
2021	5,576,567	2,914,408	2,662,159	52.26%	572,484	465.02%
2020	5,394,732	2,379,704	3,015,028	44.11%	559,551	538.83%
2019	5,176,003	2,413,708	2,762,295	46.63%	553,541	499.02%
2018	4,766,794	2,348,337	2,418,457	49.26%	562,853	429.68%
2017	4,455,275	2,217,996	2,237,279	49.78%	526,559	424.89%
2016	3,726,115	2,010,174	1,715,941	53.95%	526,334	326.02%
2015	\$3,613,308	\$2,078,202	\$1,535,106	57.52%	\$483,641	317.41%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

# CERS DRAFT 12-4-2024

## Schedule of Changes in Employers' TPL - CERS Nonhazardous As of June 30 (\$ in Thousands)

Total Pension Liability (TPL)	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Service Cost	\$283,140	\$283,633	\$272,250	\$280,165	\$280,092	\$254,643	\$254,169	\$193,082	\$209,101	\$207,400
Interest	949,404	920,862	906,401	892,309	861,720	794,935	760,622	803,555	780,587	733,002
Benefit Changes	-	3,862	-	4,106	-	-	15,708	-	-	-
Difference between Expected and Actual Experience	220,798	511,721	(49,439)	(91,776)	173,345	87,377	279,401	(208,015)	-	49,966
Changes of Assumptions	-	(905,957)	-	-	-	727,351	-	1,388,800	-	606,293
Benefit Payments	(965,781)	(917,614)	(878,050)	(840,611)	(810,879)	(780,608)	(741,177)	(701,891)	(665,000)	(628,858)
<b>Net Change in TPL</b>	<b>487,561</b>	<b>(103,493)</b>	<b>251,162</b>	<b>244,193</b>	<b>504,278</b>	<b>1,083,698</b>	<b>568,723</b>	<b>1,475,532</b>	<b>324,687</b>	<b>967,803</b>
<b>TPL – Beginning</b>	<b>15,089,106</b>	<b>15,192,599</b>	<b>14,941,437</b>	<b>14,697,244</b>	<b>14,192,966</b>	<b>13,109,268</b>	<b>12,540,545</b>	<b>11,065,013</b>	<b>10,740,325</b>	<b>9,772,522</b>
<b>TPL – Ending (a)</b>	<b>\$15,576,667</b>	<b>\$15,089,106</b>	<b>\$15,192,599</b>	<b>\$14,941,437</b>	<b>\$14,697,244</b>	<b>\$14,192,966</b>	<b>\$13,109,268</b>	<b>\$12,540,545</b>	<b>\$11,065,013</b>	<b>\$10,740,325</b>
<b>Plan Fiduciary Net Position <sup>(1)</sup></b>										
Contributions – Employer	\$764,778	\$697,681	\$606,807	\$472,228	\$475,416	\$393,453	\$358,017	\$333,554	\$284,105	\$298,565
Contributions – Member <sup>(2)</sup>	161,176	147,769	186,648	165,698	168,994	159,064	160,370	150,715	141,674	140,311
Refunds of Contributions	(25,267)	(23,263)	(19,789)	(13,862)	(14,918)	(14,387)	(14,608)	(14,430)	(13,753)	(13,523)
Retirement Benefit	(940,514)	(894,351)	(858,261)	(826,749)	(795,960)	(766,221)	(726,569)	(687,461)	(651,246)	(615,335)
Net Investment Income <sup>(2)</sup>	990,021	805,303	(494,801)	1,762,739	56,178	390,664	573,829	825,900	(40,800)	110,568
Administrative Expense	(26,547)	(24,128)	(22,670)	(21,729)	(22,304)	(21,659)	(19,592)	(19,609)	(19,385)	(18,212)
Other	-	-	-	-	-	44 <sup>(5)</sup>	361 <sup>(5)</sup>	(42,827) <sup>(4)</sup>	-	10,280
<b>Net Change in Plan Fiduciary Net Position</b>	<b>923,647</b>	<b>709,011</b>	<b>(602,066)</b>	<b>1,538,325</b>	<b>(132,594)</b>	<b>140,958</b>	<b>331,808</b>	<b>545,843</b>	<b>(299,405)</b>	<b>(87,346)</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>8,672,597</b>	<b>7,963,586</b>	<b>8,565,652</b>	<b>7,027,327</b>	<b>7,159,921</b>	<b>7,018,963</b>	<b>6,687,237</b>	<b>6,141,395</b>	<b>6,440,800</b>	<b>6,528,146</b>
<b>Prior Year Adjustment</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(82)</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>9,596,244</b>	<b>8,672,597</b>	<b>7,963,586</b>	<b>8,565,652</b>	<b>7,027,327</b>	<b>7,159,921</b>	<b>7,018,963</b>	<b>6,687,237</b>	<b>6,141,395</b>	<b>6,440,800</b>
<b>Net Pension Liability – Ending (a) – (b)</b>	<b>\$5,980,423</b>	<b>\$6,416,509</b>	<b>\$7,229,013</b>	<b>\$6,375,785</b>	<b>\$7,669,917</b>	<b>\$7,033,045</b>	<b>\$6,090,305</b>	<b>\$5,853,308</b>	<b>\$4,923,618</b>	<b>\$4,299,525</b>
Plan Fiduciary Net Position as a Percentage	61.61%	57.48%	52.42%	57.33%	47.81%	50.45%	53.54%	53.32%	55.50%	59.97%
Covered Payroll <sup>(3)</sup>	\$3,259,999	\$2,966,567	\$2,835,173	\$2,446,612	\$2,462,752	\$2,424,796	\$2,454,927	\$2,376,290	\$2,417,187	\$2,296,716
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>183.45%</b>	<b>216.29%</b>	<b>254.98%</b>	<b>260.60%</b>	<b>311.44%</b>	<b>290.05%</b>	<b>248.08%</b>	<b>246.32%</b>	<b>203.69%</b>	<b>187.20%</b>

<sup>(1)</sup> Does not include 401(h) assets for fiscal years 2017 and later. Assets totaled \$121,382,000 as of June 30, 2024.

<sup>(2)</sup> Does not include 401(h) contributions or associated investment income for fiscal years 2017 and later. For fiscal year 2024, 401(h) contributions equaled \$(86,000); and associated investment return equaled \$12,626,000.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

<sup>(4)</sup> Adjustment due to 401(h) plan asset balance being considered an OPEB asset under GASB 74 for fiscal years 2017 and later.

<sup>(5)</sup> Northern Trust Settlement.

## CERS DRAFT 12-4-2024

**Schedule of Changes in Employers' TPL - CERS Hazardous  
As of June 30 (\$ in Thousands)**

<b>Total Pension Liability (TPL)</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Service Cost	\$122,224	\$115,389	\$109,683	\$109,350	\$109,887	\$77,426	\$81,103	\$58,343	\$66,249	\$71,934
Interest	361,081	350,413	338,799	327,963	314,762	289,741	270,694	270,860	262,886	247,008
Benefit Changes	-	-	-	333	-	-	2,172	-	-	-
Difference between Expected and Actual Experience	126,573	97,750	56,197	38,850	73,696	27,364	205,882	92,588	-	41,935
Changes of Assumptions	-	(275,934)	-	-	-	276,541	-	536,667	-	166,849
Benefit Payments	(352,123)	(326,161)	(311,555)	(294,661)	(279,616)	(261,863)	(248,332)	(229,299)	(216,327)	(203,244)
<b>Net Change in TPL</b>	<b>257,755</b>	<b>(38,543)</b>	<b>193,124</b>	<b>181,835</b>	<b>218,729</b>	<b>409,209</b>	<b>311,519</b>	<b>729,159</b>	<b>112,807</b>	<b>324,482</b>
<b>TPL – Beginning</b>	<b>5,731,148</b>	<b>5,769,691</b>	<b>5,576,567</b>	<b>5,394,732</b>	<b>5,176,003</b>	<b>4,766,794</b>	<b>4,455,275</b>	<b>3,726,115</b>	<b>3,613,308</b>	<b>3,288,826</b>
<b>TPL – Ending (a)</b>	<b>\$5,988,903</b>	<b>\$5,731,148</b>	<b>\$5,769,691</b>	<b>\$5,576,567</b>	<b>\$5,394,732</b>	<b>\$5,176,003</b>	<b>\$4,766,794</b>	<b>\$4,455,275</b>	<b>\$3,726,115</b>	<b>\$3,613,308</b>
<b>Plan Fiduciary Net Position <sup>(1)</sup></b>										
Contributions – Employer	\$321,293	\$308,223	\$222,028	\$172,205	\$168,443	\$138,053	\$127,660	\$115,947	\$105,713	\$108,071
Contributions – Member <sup>(2)</sup>	61,438	56,987	69,565	62,367	63,236	58,661	61,089	60,101	52,972	47,692
Refunds of Contributions	(8,540)	(6,568)	(5,766)	(4,662)	(3,814)	(2,854)	(4,214)	(2,315)	(2,879)	(3,111)
Retirement Benefit	(343,583)	(319,593)	(305,789)	(289,999)	(275,802)	(259,009)	(244,118)	(226,984)	(213,448)	(200,134)
Net Investment Income <sup>(2)</sup>	353,435	280,033	(174,217)	596,641	15,914	132,232	191,324	270,473	(9,020)	37,104
Administrative Expense	(2,338)	(2,124)	(1,995)	(1,848)	(1,981)	(1,726)	(1,504)	(1,421)	(1,366)	(1,288)
Other	-	-	-	-	-	14 <sup>(6)</sup>	111 <sup>(6)</sup>	(7,979) <sup>(4)</sup>	-	2,865
<b>Net Change in Plan Fiduciary Net Position</b>	<b>381,705</b>	<b>316,958</b>	<b>(196,174)</b>	<b>534,704</b>	<b>(34,004)</b>	<b>65,371</b>	<b>130,348</b>	<b>207,822</b>	<b>(68,028)</b>	<b>(8,801)</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>3,035,192</b>	<b>2,718,234</b>	<b>2,914,408</b>	<b>2,379,704</b>	<b>2,413,708</b>	<b>2,348,337</b>	<b>2,217,996</b>	<b>2,010,174</b>	<b>2,078,202</b>	<b>2,087,002</b>
<b>Prior Year Adjustment</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(7)</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>3,416,897</b>	<b>3,035,192</b>	<b>2,718,234</b>	<b>2,914,408</b>	<b>2,379,704</b>	<b>2,413,708</b>	<b>2,348,337</b>	<b>2,217,996</b>	<b>2,010,174</b>	<b>2,078,202</b>
<b>Net Pension Liability – Ending (a) – (b)</b>	<b>\$2,572,006</b>	<b>\$2,695,956</b>	<b>\$3,051,457</b>	<b>\$2,662,159</b>	<b>\$3,015,028</b>	<b>\$2,762,295</b>	<b>\$2,418,457</b>	<b>\$2,237,279</b>	<b>\$1,715,941</b>	<b>\$1,535,106</b>
Plan Fiduciary Net Position as a Percentage of Covered Payroll <sup>(3)</sup>	57.05%	52.96%	47.11%	52.26%	44.11%	46.63%	49.26%	49.78%	53.95%	57.52%
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>331.60%</b>	<b>377.14%</b>	<b>457.94%</b>	<b>465.02%</b>	<b>538.83%</b>	<b>499.02%</b>	<b>429.68%</b>	<b>424.89%</b>	<b>326.02%</b>	<b>317.41%</b>

<sup>(1)</sup> Does not include 401(h) assets for fiscal years 2017 and later. 401(h) assets totaled \$22,963,000 as of June 30, 2024.

<sup>(2)</sup> Does not include 401(h) contributions or associated investment income for fiscal years 2017 and later. For fiscal year 2024, 401(h) contributions equaled \$(59,000); and associated investment return equaled \$2,417,000.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

<sup>(4)</sup> Adjustment due to 401(h) plan asset balance being considered an OPEB asset under GASB 74 for fiscal years 2017 and later.

<sup>(5)</sup> Northern Trust Settlement.

## Notes to Schedule of Employers' Contributions

The actuarially determined contributions effective for fiscal year ended June 30, 2024 that are documented in the schedules on the following pages, were calculated as of June 30, 2022. Based on the June 30, 2022, actuarial valuation report, the actuarial methods and assumptions used to calculate these contribution rates are below:

Notes to Schedule of Employers' Contributions		
Item	CERS Nonhazardous	CERS Hazardous
<b>Determined by the Actuarial Valuation as of:</b>	June 30, 2022	June 30, 2022
<b>Actuarial Cost Method:</b>	Entry Age Normal	Entry Age Normal
<b>Asset Valuation Method:</b>	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized
<b>Amortization Method:</b>	Level Percent of Pay	Level Percent of Pay
<b>Amortization Period:</b>	30-year closed period at June 30, 2019, Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases	30-year closed period at June 30, 2019, Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases
<b>Payroll Growth</b>	2.00%	2.00%
<b>Investment Return:</b>	6.25%	6.25%
<b>Inflation:</b>	2.30%	2.30%
<b>Salary Increase:</b>	3.30% to 10.30%, varies by service	3.55% to 19.05%, varies by service
<b>Mortality:</b>	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019
<b>Phase-In provision</b>	Board certified rate is phased into the actuarially determined rate in accordance with HB 362 enacted in 2018.	Board certified rate is phased into the actuarially determined rate in accordance with HB 362 enacted in 2018.

**Schedule of Employers' Contributions****Schedule of Employers' Contributions Pension - CERS Nonhazardous  
As of June 30 (\$ in Thousands)**

Fiscal Year Ending	Actuarially Determined Contribution <sup>(1)</sup>	Total Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll <sup>(2)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$764,747	\$764,778	\$(31)	\$3,259,999	23.46%
2023	697,634	697,681	(47)	2,966,567	23.52%
2022	636,071	606,807	29,264	2,835,173	21.40%
2021	582,538	472,228	110,310	2,446,612	19.30%
2020	554,612	475,416	79,196	2,462,752	19.30%
2019	529,575	393,453	136,122	2,424,796	16.23%
2018	355,473	358,017	(2,544)	2,454,927	14.58%
2017	331,492	333,554	(2,062)	2,376,290	14.04%
2016	282,767	284,106	(1,339)	2,417,187	11.75%
2015	\$297,715	\$298,566	\$(851)	\$2,296,716	13.00%

<sup>(1)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2022, actuarial valuation.

<sup>(2)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017, and later.

**Schedule of Employers' Contributions Pension - CERS Hazardous  
As of June 30 (\$ in Thousands)**

Fiscal Year Ending	Actuarially Determined Contribution <sup>(1)</sup>	Total Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll <sup>(2)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$321,224	\$321,293	\$(69)	\$775,638	41.42%
2023	308,037	308,223	(186)	714,837	43.12%
2022	269,542	222,028	47,514	666,346	33.32%
2021	240,558	172,205	68,353	572,484	30.08%
2020	206,922	168,443	38,479	559,551	30.10%
2019	197,559	138,053	59,506	553,541	24.94%
2018	124,953	127,660	(2,707)	562,853	22.68%
2017	114,316	115,947	(1,631)	526,559	22.02%
2016	104,952	105,713	(761)	526,334	20.08%
2015	\$107,514	\$108,071	\$(557)	\$483,641	22.35%

<sup>(1)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2022, actuarial valuation.

<sup>(2)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017, and later.



## Schedule of Employers' Net OPEB Liability

### Schedule of the Employers' Net OPEB Liability - CERS Nonhazardous

As of June 30 (\$ in Thousands)

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$3,534,297	\$3,707,277	\$(172,980)	104.89%	\$3,259,999	(5.31)%
2023	3,260,308	3,398,375	(138,067)	104.23%	2,982,960	(4.63)%
2022	5,053,498	3,079,984	1,973,514	60.95%	2,843,218	69.41%
2021	5,161,251	3,246,801	1,914,450	62.91%	2,619,695	73.08%
2020	4,996,309	2,581,613	2,414,696	51.67%	2,620,585	92.14%
2019	4,251,466	2,569,511	1,681,955	60.44%	2,577,378	65.26%
2018	4,189,606	2,414,126	1,775,480	57.62%	2,570,156	69.08%
2017	\$4,222,878	\$2,212,536	\$2,010,342	52.39%	\$2,480,130	81.06%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information. For 2024, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance Plan for FYE2024.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

### Schedule of the Employers' Net OPEB Liability - CERS Hazardous

As of June 30 (\$ in Thousands)

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$1,873,669	\$1,752,366	\$121,303	93.53%	\$796,792	15.22%
2023	1,771,015	1,634,192	136,823	92.27%	719,666	19.01%
2022	2,374,457	1,522,671	851,786	64.13%	668,667	127.39%
2021	2,436,383	1,627,824	808,559	66.81%	613,985	131.69%
2020	2,245,222	1,321,117	924,105	58.84%	596,001	155.05%
2019	2,080,574	1,340,714	739,860	64.44%	583,632	126.77%
2018	1,993,941	1,280,982	712,959	64.24%	588,526	121.14%
2017	\$2,015,673	\$1,189,001	\$826,672	58.99%	\$542,710	152.32%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

## Schedule of Changes in Net OPEB Liability

### Schedule of Changes in Employers' Net OPEB Liability - CERS Nonhazardous As of June 30 (\$ in Thousands)

	2024	2023	2022	2021	2020	2019	2018	2017
<b>Total OPEB Liability</b>								
Service Cost	\$96,276	\$98,045	\$138,225	\$132,407	\$131,289	\$119,011	\$122,244	\$85,468
Interest on Total OPEB liability	188,558	283,330	263,390	262,128	236,126	240,352	242,048	240,854
Benefit Changes	-	5,153	74,108	3,359	-	-	4,306	-
Difference between Expected and Actual Experience	122,626	(2,134,260)	(68,111)	(340,831)	505,843	(404,301)	(240,568)	(6,641)
Assumption Changes	27,673	120,132	(323,247)	282,975	60,225	268,842	(4,876)	520,286
Benefit Payments <sup>(1)(2)</sup>	(161,144)	(165,590)	(192,118)	(175,096)	(188,640)	(162,044)	(156,426)	(140,120)
<b>Net Change in Total OPEB Liability</b>	<b>273,989</b>	<b>(1,793,190)</b>	<b>(107,753)</b>	<b>164,942</b>	<b>744,843</b>	<b>61,860</b>	<b>(33,272)</b>	<b>699,847</b>
<b>Total OPEB Liability - Beginning</b>	<b>3,260,308</b>	<b>5,053,498</b>	<b>5,161,251</b>	<b>4,996,309</b>	<b>4,251,466</b>	<b>4,189,606</b>	<b>4,222,878</b>	<b>3,523,031</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$3,534,297</b>	<b>\$3,260,308</b>	<b>\$5,053,498</b>	<b>\$5,161,251</b>	<b>\$4,996,309</b>	<b>\$4,251,466</b>	<b>\$4,189,606</b>	<b>\$4,222,878</b>
<b>Plan Fiduciary Net Position</b>								
Contributions – Employer <sup>(2)</sup>	\$57,187	\$151,052	\$187,204	\$186,509	\$179,521	\$168,905	\$145,809	\$133,326
Contributions – Member	20,651	17,751	15,925	13,613	12,964	11,801	10,825	9,158
Benefit Payments <sup>(1)(2)</sup>	(161,144)	(165,590)	(192,118)	(175,096)	(188,640)	(162,044)	(156,426)	(140,120)
OPEB Plan Net Investment Income	393,138	316,115	(176,895)	641,084	9,160	137,591	202,068	264,782
OPEB Plan Administrative Expense	(930)	(937)	(933)	(922)	(903)	(877)	(761)	(789)
Other <sup>(4)</sup>	-	-	-	-	-	9	75	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>308,902</b>	<b>318,391</b>	<b>(166,817)</b>	<b>665,188</b>	<b>12,102</b>	<b>155,385</b>	<b>201,590</b>	<b>266,357</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>3,398,375</b>	<b>3,079,984</b>	<b>3,246,801</b>	<b>2,581,613</b>	<b>2,569,511</b>	<b>2,414,126</b>	<b>2,212,536</b>	<b>1,946,179</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>3,707,277</b>	<b>3,398,375</b>	<b>3,079,984</b>	<b>3,246,801</b>	<b>2,581,613</b>	<b>2,569,511</b>	<b>2,414,126</b>	<b>2,212,536</b>
<b>Net OPEB Liability – Ending (a) – (b)</b>	<b>\$(172,980)</b>	<b>\$(138,067)</b>	<b>\$1,973,514</b>	<b>\$1,914,450</b>	<b>\$2,414,696</b>	<b>\$1,681,955</b>	<b>\$1,775,480</b>	<b>\$2,010,342</b>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	104.89%	104.23%	60.95%	62.91%	51.67%	60.44%	57.62%	52.39%
Covered Payroll <sup>(3)</sup>	\$3,259,999	\$2,982,960	\$2,843,218	\$2,619,695	\$2,620,585	\$2,577,378	\$2,570,156	\$2,480,130
<b>Net OPEB Liability as a Percentage of Covered Payroll</b>	<b>(5.31)%</b>	<b>(4.63)%</b>	<b>69.41%</b>	<b>73.08%</b>	<b>92.14%</b>	<b>65.26%</b>	<b>69.08%</b>	<b>81.06%</b>

<sup>(1)</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>(2)</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to \$47,044,255 for fiscal year 2024.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information. For 2024, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2024

<sup>(4)</sup> Northern Trust Settlement.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

**CERS DRAFT 12-4-2024****Schedule of Changes in Employers' Net OPEB Liability - CERS Hazardous  
As of June 30 (\$ in Thousands)**

	2024	2023	2022	2021	2020	2019	2018	2017
<b>Total OPEB Liability</b>								
Service Cost	\$32,335	\$36,330	\$52,265	\$48,413	\$47,443	\$32,623	\$33,948	\$20,493
Interest on Total OPEB liability	102,922	130,614	120,640	116,710	115,998	116,768	118,009	113,166
Benefit Changes	-	-	44,909	1,146	-	-	484	-
Difference between Expected and Actual Experience	32,646	(646,006)	(7,814)	(47,937)	38,156	(103,317)	(100,348)	(2,470)
Assumption Changes	28,802	(31,947)	(176,969)	159,106	46,925	116,618	(2,500)	391,061
Benefit Payments <sup>(1)(2)</sup>	(94,051)	(92,433)	(94,957)	(86,277)	(83,874)	(76,059)	(71,325)	(63,656)
<b>Net Change in Total OPEB Liability</b>	<b>102,654</b>	<b>(603,442)</b>	<b>(61,926)</b>	<b>191,161</b>	<b>164,648</b>	<b>86,633</b>	<b>(21,732)</b>	<b>458,594</b>
<b>Total OPEB Liability - Beginning</b>	<b>1,771,015</b>	<b>2,374,457</b>	<b>2,436,383</b>	<b>2,245,222</b>	<b>2,080,574</b>	<b>1,993,941</b>	<b>2,015,673</b>	<b>1,557,079</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$1,873,669</b>	<b>\$1,771,015</b>	<b>\$2,374,457</b>	<b>\$2,436,383</b>	<b>\$2,245,222</b>	<b>\$2,080,574</b>	<b>\$1,993,941</b>	<b>\$2,015,673</b>
<b>Plan Fiduciary Net Position</b>								
Contributions – Employer <sup>(2)</sup>	\$21,945	\$49,547	\$66,320	\$63,509	\$59,662	\$60,445	\$51,615	\$44,325
Contributions – Member	4,979	4,258	3,654	3,098	2,762	2,458	2,173	1,708
Benefit Payments <sup>(1)(2)</sup>	(94,051)	(92,433)	(94,957)	(86,277)	(83,874)	(76,059)	(71,325)	(63,656)
OPEB Plan Net Investment Income	185,823	150,671	(79,668)	326,905	2,315	73,317	109,854	143,892
OPEB Plan Administrative Expense	(522)	(522)	(502)	(528)	(462)	(434)	(376)	(381)
Other <sup>(4)</sup>	-	-	-	-	-	5	40	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>118,174</b>	<b>111,521</b>	<b>(105,153)</b>	<b>306,707</b>	<b>(19,597)</b>	<b>59,732</b>	<b>91,981</b>	<b>125,888</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>1,634,192</b>	<b>1,522,671</b>	<b>1,627,824</b>	<b>1,321,117</b>	<b>1,340,714</b>	<b>1,280,982</b>	<b>1,189,001</b>	<b>1,063,113</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>1,752,366</b>	<b>1,634,192</b>	<b>1,522,671</b>	<b>1,627,824</b>	<b>1,321,117</b>	<b>1,340,714</b>	<b>1,280,982</b>	<b>1,189,001</b>
<b>Net OPEB Liability – Ending (a) – (b)</b>	<b>\$121,303</b>	<b>\$136,823</b>	<b>\$851,786</b>	<b>\$808,559</b>	<b>\$924,105</b>	<b>\$739,860</b>	<b>\$712,959</b>	<b>\$826,672</b>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	93.53%	92.27%	64.13%	66.81%	58.84%	64.44%	64.24%	58.99%
Covered Payroll <sup>(3)</sup>	\$796,792	\$719,666	\$668,667	\$613,985	\$596,001	\$583,632	\$588,526	\$542,710
<b>Net OPEB Liability as a Percentage of Covered Payroll</b>	<b>15.22%</b>	<b>19.01%</b>	<b>127.39%</b>	<b>131.69%</b>	<b>155.05%</b>	<b>126.77%</b>	<b>121.14%</b>	<b>152.32%</b>

<sup>(1)</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>(2)</sup> Employer contributions include expected benefits due to the implicit subsidy for members under age 65, equal to (\$700,337) for fiscal year 2024.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information.

<sup>(4)</sup> Northern Trust Settlement.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

## Notes to Schedule of Employers OPEB Contributions

The actuarially determined contributions effective for fiscal year ended June 30, 2024 that are documented in the following schedules were calculated as of June 30, 2022. Based on the June 30, 2022, actuarial valuation report, the actuarial methods and assumptions used to calculate the required contributions follow.

<b>Notes to Schedule of Employers' OPEB Contributions</b>		
<b>Item</b>	<b>CERS Nonhazardous</b>	<b>CERS Hazardous</b>
<b>Determined by the Actuarial Valuation as of:</b>	June 30, 2022	June 30, 2022
<b>Actuarial Cost Method:</b>	Entry Age Normal	Entry Age Normal
<b>Asset Valuation Method:</b>	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.
<b>Amortization Method:</b>	Level Percent of Pay	Level Percent of Pay
<b>Amortization Period:</b>	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases.	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases.
<b>Payroll Growth Rate:</b>	2.00%	2.00%
<b>Investment Return:</b>	6.25%	6.25%
<b>Inflation:</b>	2.30%	2.30%
<b>Salary Increase:</b>	3.30% to 10.30%, varies by service.	3.55% to 19.05%, varies by service.
<b>Mortality:</b>	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.
<b>Healthcare Trend Rates:</b>		
<b>Pre-65</b>	Initial trend starting at 6.20% at January 1, 2024 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years. The 2023 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.20% at January 1, 2024 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years. The 2023 premiums were known at the time of the valuation and were incorporated into the liability measurement.
<b>Post-65</b>	Initial trend starting at 9.00% at January 1, 2024 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years. The 2023 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 9.00% at January 1, 2024 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years. The 2023 premiums were known at the time of the valuation and were incorporated into the liability measurement.

## Schedule of Employers' OPEB Contributions

### Schedule of Employers' OPEB Contributions - CERS Nonhazardous As of June 30 (\$ in Thousands)

Fiscal Year Ending <sup>(1)</sup>	Actuarially Determined Contribution <sup>(2)</sup>	Total Employer Contribution <sup>(3)</sup>	Contribution Deficiency (Excess)	Covered Payroll <sup>(4)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$-	\$10,143	\$(10,143)	\$3,259,999	0.31%
2023	101,122	106,044	(4,922)	2,982,960	3.55%
2022	118,551	123,366	(4,815)	2,843,218	4.34%
2021	142,249	129,903	12,346	2,619,695	4.96%
2020	124,740	129,267	(4,527)	2,620,585	4.93%
2019	160,055	139,655	20,400	2,577,378	5.42%
2018	120,797	124,619	(3,822)	2,570,156	4.85%
2017	122,270	120,712	1,558	2,480,130	4.87%
2016	110,987	111,836	(849)	2,352,762	4.75%
2015	\$119,511	\$119,444	\$67	\$2,296,716	5.20%

<sup>(1)</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>(2)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2022, actuarial valuation.

<sup>(3)</sup> Employer contributions do not include the expected implicit subsidy included in the Schedule of Changes in Employer's Net OPEB Liability - CERS Nonhazardous.

<sup>(4)</sup> Based on derived compensation using the provided employer contribution information. For 2024, derived compensation based on pension contribution, information as there were no required employer contributions for the insurance fund for FYE 2024.

### Schedule of Employers' OPEB Contributions - CERS Hazardous As of June 30 (\$ in Thousands)

Fiscal Year Ending <sup>(1)</sup>	Actuarially Determined Contribution <sup>(2)</sup>	Total Employer Contribution <sup>(3)</sup>	Contribution Deficiency (Excess)	Covered Payroll <sup>(4)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$20,557	\$22,645	\$(2,088)	\$796,792	2.84%
2023	48,793	50,404	(1,611)	719,666	7.00%
2022	58,375	59,905	(1,530)	668,667	8.96%
2021	60,539	59,799	740	613,985	9.74%
2020	56,739	57,897	(1,158)	596,001	9.71%
2019	71,028	62,272	8,756	583,632	10.67%
2018	55,027	56,002	(975)	588,526	9.52%
2017	53,131	51,537	1,594	542,710	9.50%
2016	64,253	67,619	(3,366)	492,851	13.72%
2015	\$69,103	\$71,778	(2,675)	\$483,641	14.84%

<sup>(1)</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>(2)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2022, actuarial valuation.

<sup>(3)</sup> Employer contributions do not include the expected implicit subsidy included in the Schedule of Changes in Employer's Net OPEB Liability - CERS Hazardous.

<sup>(4)</sup> Based on derived compensation using the provided employer contribution information.

## Money-Weighted Rates of Return

In accordance with GASB 67 and GASB 74, CERS provides this additional disclosure regarding the money-weighted rate of return for the Pension and Insurance Plans. The money-weighted rate of return is a method of calculating period-by-period returns on 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, net of investment expenses, adjusted for the changing amounts actually invested.

See below for the money-weighted rates of return for multiple periods including fiscal year June 30, 2024, as calculated by the custodian bank, BNY Mellon:

Money - Weighted Rates of Return As of June 30					
	Pension		Insurance		
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous	
2024	11.59%	11.75%	11.75%	11.67%	
2023	10.25%	10.35%	10.32%	10.06%	
2022	(5.83)%	(6.02)%	(5.49)%	(4.95)%	
2021	25.72%	25.58%	24.81%	24.99%	
2020	0.84%	0.71%	0.36%	0.27%	
2019	5.72%	5.76%	5.73%	5.78%	
2018	8.82%	8.82%	9.22%	9.35%	
2017	13.80%	13.72%	13.67%	13.69%	
2016	(0.62)%	(0.46)%			
2015	1.90%	1.95%			

*Note: This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.*

## Schedule of Administrative Expenses

KPPA provides administrative support for CERS, and the Kentucky Retirement Systems (KRS), comprising the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS). Kentucky Revised Statute 61.505 11(a) requires all expenses incurred by KPPA on behalf of the Systems be prorated, assigned, or allocated to the Systems. KPPA works closely with the CERS and KRS Boards of Trustees to develop an allocation method that takes into consideration membership, assets under management, system specific costs, and statutory requirements. Total administrative costs incurred by KPPA for the fiscal year ended June 30, 2024, were \$47.3 million, of which \$30.4 million was allocated to CERS based on the hybrid allocation developed by the KPPA Board, the CERS Board, and the KRS Board.

### Schedule of Administrative Expenses As of June 30, 2024 (\$ in Thousands)

	2024
Salaries	\$12,054
Benefits	11,065
Professional Services	2,193
Information Technology	2,132
Communications	509
Office & Equipment Rent	662
Travel/Conferences	77
Other Operating Expenses	193
Insurance Fund Administration	1,465
<b>Total Administrative Expenses</b>	<b>\$30,350</b>

## Schedule of Direct Investment Expenses

### Schedule of Direct Investment Expenses As of June 30, 2024 (\$ in Thousands)

	Pension		Insurance	
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous
<b>Security Lending Fees</b>				
Securities Lending Fees, Expenses, and Rebates	\$10,355	\$3,718	\$2,923	\$1,317
<b>Total Security Lending</b>	<b>10,355</b>	<b>3,718</b>	<b>2,923</b>	<b>1,317</b>
<b>Contractual Services</b>				
Investment Management	60,335	20,408	22,399	11,632
Security Custody	913	323	504	243
Investment Consultant	562	197	212	103
Performance Fees	18,517	6,226	7,456	4,103
<b>Total Contractual Services</b>	<b>\$80,327</b>	<b>\$27,154</b>	<b>\$30,571</b>	<b>\$16,081</b>

## Schedule of Professional Consultant Fees

### Schedule of Professional Consultant Fees As of June 30, 2024 (\$ in Thousands)

	2024
Actuarial Services	\$265
Medical Review Services	901
Audit Services	151
Legal Counsel	684
Miscellaneous	192
<b>Total</b>	<b>\$2,193</b>

**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**

To the Members  
County Employees Retirement System  
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 financial statements of County Employees Retirement System (CERS), as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise the CERS basic financial statements, and have issued our report thereon dated **DATE--**.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the CERS's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the CERS's internal control. Accordingly, we do not express an opinion on the effectiveness of the CERS's 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. 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 or significant deficiencies may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the CERS's financial statements are free from 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 financial statements. 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



**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  
(Continued)**

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 results of that testing, and not to provide an opinion on the effectiveness of the CERS's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering CERS's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Blue & Co., LLC

Lexington, Kentucky

--DATE--

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## Investment Overview

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*This section of the report was compiled by Investment Staff using information provided by Wilshire Associates and the Bank of New York Mellon. Except otherwise noted, investment returns are based on investment asset fair value and calculated using time-weighted return calculation methodologies.*

Investment returns play an important role in terms of funding status of the Plans and continued funding of operations. The Investment Committee and the Board of Trustees are committed to maximizing the long-term total rate of return on investments, given the appropriate level of risk, for the sole benefit of the members in the Plans. The overall investment performance goal is to achieve an annualized rate of return which, when combined with employee and employer contributions, will meet or exceed the benefits and administrative funding requirements (see Investment Objectives later in this section).

Investments are managed by professional investment management firms and the Investment Staff based upon statutory investment authority and the investment policies adopted by the CERS Investment Committee and ratified by the CERS Board of Trustees. The Investment Staff is responsible for the administration of the investment assets of CERS and assists the Investment Committee in the formulation and implementation of investment policies and long-term investment strategy.

### Asset Allocation and Diversification

The Trustees recognize that asset allocation is the primary driver of long-term investment performance and therefore review asset allocation on a regular basis. Asset allocation is a process designed to construct an optimal long-term asset mix that achieves a specific set of investment objectives. The Investment Policy Statement (IPS) establishes the Plans' asset allocation policies which are designed to meet those objectives.

The asset allocation policies are adopted to provide for diversification of assets in an effort to maximize the long-term returns on investments consistent with prudent levels of market and economic risks. Of all the components of investment strategy formulation, the determination of asset allocation policies are the most important decision.

Risk is further diversified through active and passive management using multiple investment management firms and Investment Staff with a variety of investment styles. The total investment performance is not dependent upon the outcome of just one particular investment style or manager.

Investment Staff develops specific contractual investment guidelines for each external manager and each internally managed account that control the risk of high concentrations in a particular sector, industry, or security.

Diversification of the assets among various asset classes, investment management styles, and individual securities mitigates risks and enhances the potential of the investment portfolios to achieve their respective long-term objectives.

The following tables show each Plans' asset allocation targets as specified in their Investment Policy Statement and the actual asset allocation of the Plans as of June 30, 2024.

**IPS Target Allocation vs. Actual Asset Allocation  
As of June 30, 2024**

	Public Equity	Private Equity	Core Fixed Income	Specialty Credit	Cash	Real Estate	Real Return	Total Plan
<b>IPS Target Asset Allocation</b>	<b>50.00%</b>	<b>10.00%</b>	<b>10.00%</b>	<b>10.00%</b>	<b>0.00%</b>	<b>7.00%</b>	<b>13.00%</b>	<b>100.00%</b>
<b>Pension</b>								
<b>CERS Nonhazardous Actual Asset Allocation</b>	52.57%	6.38%	10.04%	20.04%	1.58%	5.28%	4.11%	100.00%
<b>CERS Hazardous Actual Asset Allocation</b>	52.28%	6.44%	9.96%	19.48%	3.03%	4.74%	4.07%	100.00%
<b>Insurance</b>								
<b>CERS Nonhazardous Actual Asset Allocation</b>	52.71%	6.90%	10.11%	20.21%	1.27%	5.12%	3.68%	100.00%
<b>CERS Hazardous Actual Asset Allocation</b>	52.69%	8.00%	9.46%	19.25%	1.08%	5.83%	3.69%	100.00%

*NOTE: The actual asset allocations are calculated by taking the fair value of each asset class as a percentage of total portfolio for the plans combined.*

## Investment Strategies

### Diversification

The Pension and Insurance portfolios are diversified on several levels, including by asset class. Asset allocations are evaluated on a periodic basis and represent an efficient allocation to maximize returns and minimize risks at a level appropriate for each Plan. The individual asset classes are diversified through the use of multiple portfolios that are managed by both the Investment Staff and external Investment Managers. Each Investment Manager is afforded discretion to diversify its portfolio(s) within the parameters established by their contractual guidelines and in accordance with the CERS IPS.

### Rebalancing

Proper implementation of the investment policy requires that a periodic adjustment, or rebalancing, of assets be made to ensure conformance with the IPS target levels. Such rebalancing is necessary to reflect sizable cash flows and performance imbalances among asset classes and individual investment portfolios. Should the actual portfolio rate fall outside of the IPS indicated range for a particular asset class, Investment Staff will direct rebalancing transactions to reallocate assets from the over-allocated asset class to the under-allocated asset class.

### Performance Review

At least quarterly, the Investment Committee, reviews the performance of the portfolios to determine compliance with the IPS. The Investment Committee also reviews a report created and presented by the Compliance Officer. The Compliance Officer performs tests daily, monthly, and quarterly to assure compliance with the restrictions imposed by the IPS.

### Investment Consulting

The Board employs qualified independent industry leading external consultants to assist in asset allocation studies, asset allocation recommendations, manager searches and other investment related consulting functions. Consultants also provide performance reports covering both the internally and externally managed assets.

## Investment Objectives

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The Trustees recognize that as long-term investors, the primary aim is that the portfolios meet their performance objectives in the long-term while understanding that this may not necessarily occur in the short-term. The overall investment performance goal is to achieve an annualized rate of return which, when combined with employee and employer contributions, will meet or exceed the benefits and administrative funding requirements. The following descriptions represent general standards of measurement that will be used as guidelines for the various classes of investments and managers of the Plans.

### Public Asset Class Allocations

**Short-term:** For periods less than five years or a full market cycle, the Asset Class Allocation should exceed the returns of the appropriate Index.

**Intermediate & Long-term:** For periods greater than five years or a full market cycle, the Asset Class Allocation should exceed the appropriate Index, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the Index.

### Individual Public Security Portfolios

**Short-term:** For periods less than five years or a full market cycle, individual portfolios should exceed the returns of their market goal or benchmark.

**Intermediate & Long-term:** For periods greater than five years or a full market cycle, individual portfolios should exceed the return of their market goal or benchmark, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.

### Alternative Assets

#### Private Equity

The Private Equity portfolio seeks long-term annualized net returns that exceed public equity investments (as represented by the Russell 3000 Index lagged 1 calendar quarter) by three percent.

#### Real Estate

The Real Estate portfolio seeks long-term annualized net returns that exceed the National Council of Real Estate Investment Fiduciaries Open End Diversified Core Equity Index lagged 1 calendar quarter.

#### Real Return

The Real Return portfolio seeks long term annualized net returns that exceed CPI + 300 basis points.

## Investment Results

For this report, total return information has been reported net of fees and expenses with audited data. All rates of return are calculated using time-weighted rates of return.

### Fiscal Year 2024 Results

Please see the tables below for the net returns reported for the fiscal year ended June 30, 2024.

Net Returns As of June 30, 2024 (\$ in Thousands)										
Pension	Fair Value	% of Total	1 Year		3 Years		5 Years		10 Years	
			Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>CERS Nonhazardous</b>	\$9,627,995	73.83%	11.60%	14.10%	5.00%	5.37%	7.98%	8.06%	6.90%	6.80%
<b>CERS Hazardous</b>	3,412,100	26.17%	11.73%	14.10%	5.01%	5.37%	7.93%	8.06%	6.89%	6.80%
<b>Total</b>	<b>\$13,040,095</b>	<b>100.00%</b>	<b>11.63%</b>	<b>14.10%</b>	<b>5.01%</b>	<b>5.37%</b>	<b>7.96%</b>	<b>8.06%</b>	<b>6.89%</b>	<b>6.80%</b>

Insurance										
<b>CERS Nonhazardous</b>	\$3,581,072	67.46%	11.78%	14.10%	5.26%	5.44%	7.87%	7.81%	6.93%	6.78%
<b>CERS Hazardous</b>	1,727,099	32.54%	11.73%	14.10%	5.34%	5.44%	7.93%	7.81%	6.99%	6.78%
<b>Total</b>	<b>\$5,308,171</b>	<b>100.00%</b>	<b>11.76%</b>	<b>14.10%</b>	<b>5.29%</b>	<b>5.44%</b>	<b>7.89%</b>	<b>7.81%</b>	<b>6.95%</b>	<b>6.78%</b>

## Benchmarks

CERS overall performance is measured relative to asset class benchmarks. The benchmark is calculated by means of a weighted average methodology. This method is consistent with the CFA Institute Global Investment Performance Standards (GIPS®), a set of standardized, industry-wide ethical principles that guide investment managers and asset owners on how to fairly calculate and present their investment results, with the goal of promoting performance transparency and comparability. It is the product of the various component weights (i.e., asset classes' percentages) by their respective performance (returns). The various asset class benchmarks are shown below:

### Benchmarks and Allocation Guidelines As of June 30, 2024

Index	Asset Class	Asset Allocation by Plans
<b>Equity</b>		
MSCI ACWI	Public Equity	50.00%
Russell 3000 + 300 bps (lagged one quarter)	Private Equity	10.00%
<b>Fixed Income</b>		
Bloomberg US Aggregate	Core Fixed Income	10.00%
50% Bloomberg US Corporate High Yield/50% Morningstar LSTA Leveraged Loan	Specialty Credit	10.00%
FTSE 3-mos Treasury Bill	Cash	0.00%
<b>Inflation Protected</b>		
NCREIF ODCE (one quarter lagged)	Real Estate	7.00%
US CPI + 3%	Real Return	13.00%

*Note: These benchmarks are intended to be objective, measurable, investable/replicable, and representative of the investment mandates. The benchmarks are developed from publicly available information and accepted by the investment advisor and Investment Staff as the neutral position consistent with the investment mandate and status. Investment Staff and our Consultant recommend the indices and benchmarks, which are reviewed and approved by the Investment Committee and ratified by the CERS Board.*

## Long-Term Results

The chart below displays the growth of \$1,000 over the course of 10 years given the performance of the portfolios compared to the benchmark and the actuarial assumed rate of return. As of June 30, 2024, the actuarial assumed rate of return for the CERS pension plans was 6.50%; however, it was updated by the CERS Board in February 2024 from the previous rate of 6.25%, making the prorated rate 6.35%.

Since June 30, 2015, Fiscal Year returns have ranged from a minimum of (5.90)% and (6.07%) in 2022 to a maximum of 25.72% and 25.58% in 2021 for CERS and CERS Hazardous, respectively. As of June 30, 2024, the CERS Nonhazardous Pension portfolio earned 11.60% and the CERS Hazardous Pension portfolio earned 11.73% versus the annualized benchmark return of 14.10%.

<b>Pension Plan Growth</b>											
<b>As of June 30 (in Whole \$)</b>											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
<b>CERS Nonhazardous Plan</b>											
	1.92%	(0.53)%	13.81%	8.75%	5.78%	0.84%	25.72%	(5.90)%	10.24%	11.60%	
Performance BM	2.30%	(0.66)%	13.64%	7.04%	6.37%	0.16%	25.74%	(6.41)%	9.54%	14.10%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,019	\$ 1,014	\$ 1,154	\$ 1,255	\$ 1,327	\$ 1,338	\$ 1,683	\$ 1,583	\$ 1,746	\$ 1,948
Performance Benchmark	1,000	1,023	1,016	1,155	1,236	1,315	1,317	1,656	1,550	1,698	1,937
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905
<b>CERS Hazardous Plan</b>											
	1.96%	(0.38)%	13.73%	8.77%	5.80%	0.71%	25.58%	(6.07)%	10.33%	11.73%	
Performance BM	2.32%	(0.66)%	13.61%	7.04%	6.37%	0.16%	25.74%	(6.41)%	9.54%	14.10%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,020	\$ 1,016	\$ 1,155	\$ 1,256	\$ 1,329	\$ 1,339	\$ 1,681	\$ 1,579	\$ 1,742	\$ 1,947
Performance Benchmark	1,000	1,023	1,016	1,155	1,236	1,315	1,317	1,656	1,550	1,698	1,937
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905

The chart below shows theoretical annual returns for the Insurance portfolio since June 30, 2015, where returns range from a minimum of (5.43)% and (4.99%) in 2022 to a maximum of 24.78% and 24.98% in 2021 for CERS and CERS Hazardous, respectively. As of June 30, 2024, the CERS Insurance portfolio earned 11.78% and the CERS Hazardous plan earned 11.73% versus the annualized benchmark return of 14.10%.

<b>Insurance Plan Growth</b>											
<b>As of June 30 (in Whole \$)</b>											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
<b>CERS Nonhazardous Plan</b>											
	1.96%	(0.04)%	13.67%	9.21%	5.73%	0.36%	24.78%	(5.43)%	10.33%	11.78%	
Performance BM	2.69%	(0.25)%	13.62%	7.04%	6.25%	(0.40)%	24.76%	(6.22)%	9.54%	14.10%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,020	\$ 1,019	\$ 1,159	\$ 1,265	\$ 1,338	\$ 1,343	\$ 1,675	\$ 1,584	\$ 1,748	\$ 1,954
Performance Benchmark	1,000	1,027	1,024	1,164	1,246	1,324	1,318	1,645	1,542	1,690	1,928
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905
<b>CERS Hazardous Plan</b>											
	1.96%	0.09%	13.70%	9.32%	5.81%	0.26%	24.98%	(4.99)%	10.11%	11.73%	
Performance BM	2.70%	(0.24)%	13.62%	7.04%	6.25%	(0.40)%	24.76%	(6.22)%	9.54%	14.10%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,020	\$ 1,021	\$ 1,160	\$ 1,268	\$ 1,342	\$ 1,346	\$ 1,682	\$ 1,598	\$ 1,759	\$ 1,966
Performance Benchmark	1,000	1,027	1,025	1,164	1,246	1,324	1,319	1,645	1,543	1,690	1,928
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905



## Public Equity

For the fiscal year, the CERS Pension Nonhazardous Public Equity portfolio returned 16.97%, underperforming its benchmark return of 19.38% by 241 basis points (bps) (Insurance CERS Nonhazardous 16.98%). For the same period the CERS Pension Hazardous plan returned 17.06%, trailing the benchmark by 232 bps (Insurance CERS Hazardous 16.97%). Relative underperformance was primarily a result of positioning. Given the market fundamentals, the portfolios were allocated more heavily towards international markets during the beginning of the fiscal year than the benchmark. Further, during the period, markets were exceptionally narrow, especially within the domestic marketplace, creating a headwind for diversified investors.

During the 12 months ended June 30, 2024, the CERS Pension Nonhazardous U.S. equity portion of the portfolio returned 21.64% underperforming the Russell 3000 return of 23.12%. The CERS Pension Hazardous, and both CERS Insurance plans earned 21.77% for the fiscal year. Most individual investment mandates provided both solid absolute and relative performance. However, positioning slightly smaller in terms of market cap and anchoring more core in nature created headwinds for the portfolios, as both large caps and growth outperformed.

For the fiscal year, the CERS Pension Nonhazardous Non-U.S. equity mandates combined to underperform the MSCI ACWI Ex-US Index by 147bps (10.10% versus 11.57%), while the CERS Hazardous Non-U.S. equity portion of the portfolio returned 10.11%. The aggregate CERS Insurance international mandates returned 10.11% and 10.12% for the Nonhazardous and Hazardous plans, respectively. Within the international book, individual strategies struggled in relative terms. The correlation breakdown between earnings and stock prices made it difficult for active managers to distinguish themselves from the benchmark. Also, allocation created difficulties as growth style biased strategies faced a headwind, the opposite of their domestic counterparts.

### Return on Public Equity As of June 30, 2024

	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>4/1/1984</b>								
CERS Nonhazardous		16.97%	19.38%	4.21%	4.91%	10.24%	10.39%	8.12%	8.14%
CERS Hazardous		17.06%	19.38%	4.25%	4.91%	10.26%	10.39%	8.13%	8.14%
<b>Insurance</b>	<b>7/1/1992</b>								
CERS Nonhazardous		16.98%	19.38%	4.26%	4.90%	10.23%	10.36%	8.19%	8.14%
CERS Hazardous		16.97%	19.38%	4.20%	4.90%	10.24%	10.36%	8.20%	8.14%

*Note: Current Pension and Insurance benchmark is MSCI ACWI. Current Pension and Insurance benchmark is MSCI ACWI.*

**CERS DRAFT 12-4-2024**

<b>Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands)</b>		
<b>CERS Nonhazardous Pension</b>		
<b>Company</b>	<b>Shares</b>	<b>Fair Value</b>
ISHARES CORE S&P MIDCAP ETF	2,507,240	\$146,724
MICROSOFT CORP	316,295	141,368
NVIDIA CORP	1,046,826	129,325
APPLE INC	613,415	129,197
AMAZON.COM INC	389,728	75,315
LAZARD EMERG MKT EQY-INST	4,015,542	74,649
META PLATFORMS INC	93,261	47,024
ALPHABET INC	249,979	45,534
ALPHABET INC	207,966	38,145
BERKSHIRE HATHAWAY INC	77,043	31,341
<b>Total</b>	<b>9,517,295</b>	<b>\$858,622</b>

<b>Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands)</b>		
<b>CERS Nonhazardous Insurance</b>		
<b>Company</b>	<b>Shares</b>	<b>Fair Value</b>
ISHARES CORE S&P MIDCAP ETF	902,264	\$52,801
MICROSOFT CORP	115,270	51,520
NVIDIA CORP	381,504	47,131
APPLE INC	223,552	47,085
LAZARD EMERG MKT EQY-INST	1,502,253	27,927
AMAZON.COM INC	142,032	27,448
META PLATFORMS INC	33,988	17,137
ALPHABET INC	91,102	16,594
ALPHABET INC	75,791	13,902
BERKSHIRE HATHAWAY INC	28,078	11,422
<b>Total</b>	<b>3,495,834</b>	<b>\$312,967</b>

<b>Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands)</b>		
<b>CERS Hazardous Pension</b>		
<b>Company</b>	<b>Shares</b>	<b>Fair Value</b>
ISHARES CORE S&P MIDCAP ETF	899,515	\$52,640
MICROSOFT CORP	111,407	49,793
NVIDIA CORP	368,718	45,551
APPLE INC	216,060	45,506
AMAZON.COM INC	137,272	26,528
LAZARD EMERG MKT EQY-INST	1,403,403	26,089
META PLATFORMS INC	32,849	16,563
ALPHABET INC	88,048	16,038
ALPHABET INC	73,251	13,436
BERKSHIRE HATHAWAY INC	27,136	11,039
<b>Total</b>	<b>3,357,659</b>	<b>\$303,183</b>

<b>Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands)</b>		
<b>CERS Hazardous Insurance</b>		
<b>Company</b>	<b>Shares</b>	<b>Fair Value</b>
ISHARES CORE S&P MIDCAP ETF	465,139	\$27,220
MICROSOFT CORP	54,641	24,422
NVIDIA CORP	180,842	22,341
APPLE INC	105,969	22,319
LAZARD EMERG MKT EQY-INST	699,984	13,013
AMAZON.COM INC	67,327	13,011
META PLATFORMS INC	16,111	8,124
ALPHABET INC	43,184	7,866
ALPHABET INC	35,927	6,590
BERKSHIRE HATHAWAY INC	13,310	5,414
<b>Total</b>	<b>1,682,434</b>	<b>\$150,320</b>

A complete list of holdings is located at <https://kyret.ky.gov/Investments/Investments-Library/Pages/Investments-Holdings.aspx>.

## Core Fixed Income

For the fiscal year, the Pension Core Fixed Income CERS Nonhazardous portfolio outperformed the benchmark by 2.40%, with a return of 5.03% compared to the Bloomberg U.S. Aggregate which returned 2.63%. The CERS Hazardous portfolio also outperformed the benchmark by 2.39%, returning 5.02%. For the Insurance Core Fixed Income, CERS Nonhazardous portfolio outperformed the benchmark by 2.25%, with a return of 4.88% and CERS Hazardous portfolio outperformed the benchmark by 2.31%, returning 4.94%. Relative outperformance was driven by the shorter duration profile and tactical allocation to front end investment grade credit as rates rose and credit spreads tightened during the first six months of the fiscal year.

### Return on Core Fixed Income As of June 30, 2024

	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/2013</b>								
CERS Nonhazardous		5.03%	2.63%	0.23%	-3.02%	1.94%	-0.23%	2.44%	1.35%
CERS Hazardous		5.02%	2.63%	0.22%	-3.02%	1.93%	-0.23%	2.44%	1.35%
<b>Insurance</b>	<b>7/1/2013</b>								
CERS Nonhazardous		4.88%	2.63%	0.07%	-3.02%	1.75%	-0.23%	2.33%	1.35%
CERS Hazardous		4.94%	2.63%	0.10%	-3.02%	1.77%	-0.23%	2.34%	1.35%

Note: Current Pension and Insurance benchmark is Bloomberg US Aggregate. Plan returns are reported gross of fees.

### Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Nonhazardous Pension

Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	3,212,923	\$311,878
U S TREASURY BOND	7,727,887	7,792
U S TREASURY NOTE	7,456,086	7,502
U S TREASURY NOTE	6,954,741	7,103
U S TREASURY BOND	6,993,416	6,812
U S TREASURY NOTE	6,123,581	6,192
U S TREASURY NOTE	6,079,534	6,069
U S TREASURY NOTE	5,692,423	5,721
U S TREASURY NOTE	5,803,078	5,233
U S TREASURY NOTE	5,554,195	5,122
<b>Total</b>	<b>61,597,864</b>	<b>\$369,424</b>

### Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Nonhazardous Insurance

Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	1,155,716	\$112,185
U S TREASURY NOTE	4,139,682	3,663
U S TREASURY NOTE	2,560,673	2,615
U S TREASURY BOND	2,406,506	2,426
U S TREASURY NOTE	2,425,831	2,422
U S TREASURY NOTE	2,657,302	2,396
U S TREASURY BOND	2,323,932	2,264
U S TREASURY NOTE	2,178,988	2,192
U S TREASURY NOTE	2,121,010	2,136
U S TREASURY NOTE	2,251,020	2,076
<b>Total</b>	<b>24,220,660</b>	<b>\$134,375</b>

### Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Hazardous Pension

Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	1,129,800	\$109,670
U S TREASURY BOND	2,717,453	2,740
U S TREASURY NOTE	2,621,876	2,638
U S TREASURY NOTE	2,445,582	2,498
U S TREASURY BOND	2,459,182	2,396
U S TREASURY NOTE	2,153,311	2,177
U S TREASURY NOTE	2,137,822	2,134
U S TREASURY NOTE	2,001,698	2,012
U S TREASURY NOTE	2,040,608	1,840
U S TREASURY NOTE	1,953,091	1,801
<b>Total</b>	<b>21,660,423</b>	<b>\$129,906</b>

### Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Hazardous Insurance

Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	521,473	\$50,619
U S TREASURY NOTE	1,867,873	1,653
U S TREASURY NOTE	1,155,406	1,180
U S TREASURY BOND	1,085,843	1,095
U S TREASURY NOTE	1,094,563	1,093
U S TREASURY NOTE	1,199,006	1,081
U S TREASURY BOND	1,048,585	1,021
U S TREASURY NOTE	983,185	989
U S TREASURY NOTE	957,025	964
U S TREASURY NOTE	1,015,687	937
<b>Total</b>	<b>10,928,646</b>	<b>\$60,632</b>

A complete list of holdings is located at <https://kyret.ky.gov/Investments/Investments-Library/Pages/Investments-Holdings.aspx>.

## Specialty Credit

For the fiscal year, the Pension Specialty Credit CERS Nonhazardous portfolio outperformed the benchmark by 2.93%, with a return of 13.74% compared to the custom benchmark which returned 10.81%. The CERS Hazardous portfolio also outperformed the benchmark by 2.76%, returning 13.57%. For the Insurance Specialty Credit, CERS Nonhazardous portfolio outperformed the benchmark by 2.98%, with a return of 13.79% and CERS Hazardous portfolio outperformed the benchmark by 3.43%, returning 14.24%. Outperformance was a result of credit spreads continuing to tighten as well as an increase in interest rates as the majority of holdings in the private sector is floating rate.

### Return on Specialty Credit As of June 30, 2024

	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/2017</b>								
CERS Nonhazardous		13.74%	10.81%	8.28%	3.92%	8.06%	4.76%	6.55%	N/A
CERS Hazardous		13.57%	10.81%	8.12%	3.92%	7.95%	4.76%	6.49%	N/A
<b>Insurance</b>	<b>7/1/2017</b>								
CERS Nonhazardous		13.79%	10.81%	8.16%	3.92%	7.94%	4.76%	6.45%	N/A
CERS Hazardous		14.24%	10.81%	8.57%	3.92%	8.26%	4.76%	6.61%	N/A

Note: Current Pension and Insurance benchmark is 50% Bloomberg Barclays US High Yield/50% S&P LSTA Leveraged Loan

### Top 10 Specialty Credit Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Nonhazardous Pension

Issuer	Fair Value
ARAMARK 3/24 B8 TL	\$2,814
AECOM 4/24 TLB	2,398
HERTZ 6/21 TLB	1,856
MEDLINE INDUSTRIES/MOZART 6/24	1,832
SPDR BLOOMBERG SHORT TERM HI	1,736
BURGER KING/RESTAURANT 6/24 TL	1,698
HCA INC	1,665
U S TREASURY NOTE	1,644
CULLEN/FROST CAPITAL TRUST II	1,505
CLOUD SOFTWARE GROUP INC 144A	1,464
<b>Total</b>	<b>\$18,612</b>

### Top 10 Specialty Credit Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Nonhazardous Insurance

Issuer	Fair Value
ARAMARK 3/24 B8 TL	\$891
AECOM 4/24 TLB	715
BURGER KING/RESTAURANT BRANDS	703
CLOUD SOFTWARE GROUP INC 144A	703
MEDLINE BORROWER LP 144A	601
HERTZ 6/21 TLB	587
MEDLINE INDUSTRIES/MOZART 6/24	576
TRANSDIGM INC 144A	543
ARDAGH METAL PACKAGING FI 144A	538
CLEARWAY ENERGY OPERATING 144A	538
<b>Total</b>	<b>\$6,395</b>

### Top 10 Specialty Credit Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Hazardous Pension

Issuer	Fair Value
ARAMARK 3/24 B8 TL	\$1,099
AECOM 4/24 TLB	936
HERTZ 6/21 TLB	725
MEDLINE INDUSTRIES/MOZART 6/24	715
BURGER KING/RESTAURANT 6/24 TL	663
HCA INC	650
U S TREASURY NOTE	641
CULLEN/FROST CAPITAL TRUST II	587
SPDR BLOOMBERG SHORT TERM HI	585
CLOUD SOFTWARE GROUP INC 144A	575
<b>Total</b>	<b>\$7,176</b>

### Top 10 Specialty Credit Holdings As of June 30, 2024 (\$ in Thousands)

#### CERS Hazardous Insurance

Issuer	Fair Value
ARAMARK 3/24 B8 TL	\$280
AECOM 4/24 TLB	225
BURGER KING/RESTAURANT BRANDS	221
HERTZ 6/21 TLB	185
MEDLINE INDUSTRIES/MOZART 6/24	181
HCA INC	169
U S TREASURY NOTE	161
SPDR BLOOMBERG SHORT TERM HI	161
CULLEN/FROST CAPITAL TRUST II	159
ASURION 12/20 B8 COV-LITE TL	146
<b>Total</b>	<b>\$1,888</b>

A complete list of holdings is located at <https://kyret.ky.gov/Investments/Investments-Library/Pages/Investments-Holdings.aspx>.

## Private Equity

For the fiscal year ended June 30, 2024, the Pension Private Equity portfolio posted gross returns of 4.60% by CERS Nonhazardous and 5.35% by CERS Hazardous, exceeding the benchmark of 3.77%. The CERS Nonhazardous and CERS Hazardous Insurance Private Equity portfolio posted gross returns of 7.28% and 7.38%, respectively. The Investment Committee acknowledges the difficulty in assessing short-term performance for Private Equity. Performance is typically based on quarterly estimates of each underlying business's value and managers are often slow to mark valuations up or down. This can distort relative performance against a public market benchmark during periods when that index moves dramatically. A better indication of program performance would be the mid- to longer-term time periods because more underlying company holdings have likely transacted at a specific (rather than estimated) valuation. The longer term returns can be found in the chart below.

Return on Private Equity As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
Pension	7/1/2002	Plan	Index	Plan	Index	Plan	Index	Plan	Index
CERS Nonhazardous		4.60%	3.77%	11.36%	7.82%	14.83%	12.28%	13.03%	15.46%
CERS Hazardous		5.35%	3.77%	11.44%	7.82%	14.47%	12.28%	13.11%	15.46%
Insurance	7/1/2002								
CERS Nonhazardous		7.28%	6.61%	14.15%	12.30%	14.80%	12.36%	14.37%	15.46%
CERS Hazardous		7.38%	6.61%	14.23%	12.30%	14.66%	12.36%	14.33%	15.46%

*Note: Current Pension and Insurance benchmark is Russell 3000 + 3%, lagged 1 quarter. Plan returns are reported gross of fees.*

## Real Estate

For the fiscal year ended June 30, 2024, the Pension Real Estate portfolio saw gross returns of (10.21)% for CERS Nonhazardous and (10.19)% CERS Hazardous, exceeding its benchmark return of (12.00)%. The Insurance Real Estate portfolio also surpassed the benchmark, returning (9.79)% for CERS Nonhazardous and (9.78)% for CERS Hazardous compared to (12.00)%.

Return on Real Estate As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
Pension	7/1/1984	Plan	Index	Plan	Index	Plan	Index	Plan	Index
CERS Nonhazardous		(10.21)%	(12.00)%	4.39%	2.47%	6.36%	2.56%	7.64%	5.82%
CERS Hazardous		(10.19)%	(12.00)%	4.42%	2.47%	6.38%	2.56%	7.64%	5.82%
Insurance	5/1/2009								
CERS Nonhazardous		(9.79)%	(12.00)%	4.03%	2.47%	6.22%	2.56%	7.56%	5.82%
CERS Hazardous		(9.78)%	(12.00)%	4.03%	2.47%	6.22%	2.56%	7.55%	5.82%

*Note: Current Pension and Insurance benchmark is the National Council of Real Estate Investment Fiduciaries Open End Diversified Core Equity (NCREIFODCE) Index, lagged 1 quarter. Plan returns are reported gross of fees.*

## Real Return

For the fiscal year ended June 30, 2024, the Pension Real Return portfolio returned 16.46% (gross) for CERS Nonhazardous and 16.63% (gross) for CERS Hazardous, outperforming its benchmark of 6.27%. The Insurance Real Return portfolio posted a gross return of 14.58% for CERS Nonhazardous and 14.60% for CERS Hazardous, also outperforming its benchmark return of 6.27% for the period.

Return on Real Return As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
Pension	7/1/2011	Plan	Index	Plan	Index	Plan	Index	Plan	Index
CERS Nonhazardous		16.46%	6.27%	10.83%	7.11%	9.14%	6.70%	5.63%	4.12%
CERS Hazardous		16.63%	6.27%	11.09%	7.11%	9.33%	6.70%	5.74%	4.12%
Insurance	7/1/2011								
CERS Nonhazardous		14.58%	6.27%	9.81%	6.77%	8.80%	6.72%	5.33%	4.18%
CERS Hazardous		14.60%	6.27%	9.52%	6.77%	8.58%	6.72%	5.30%	4.18%

*Note: Current Pension and Insurance benchmark is US CPI + 3%. Plan returns are reported gross of fees.*

## Cash

For the fiscal year, the Pension Cash CERS Nonhazardous and Hazardous portfolios underperformed the benchmark by 0.31%, with a return of 5.33% compared to the FTSE 3-Month US Treasury Bill which returned 5.64%. For the Insurance Cash, both CERS Nonhazardous and Hazardous portfolios underperformed the benchmark by 0.29%, with a return of 5.35%.

Return on Cash As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
Pension	1/1/1988	Plan	Index	Plan	Index	Plan	Index	Plan	Index
CERS Nonhazardous		5.33%	5.64%	2.96%	3.17%	2.18%	2.22%	1.67%	1.53%
CERS Hazardous		5.33%	5.64%	2.96%	3.17%	2.18%	2.22%	1.67%	1.53%
Insurance	7/1/1992								
CERS Nonhazardous		5.35%	5.64%	2.96%	3.17%	2.08%	2.22%	1.54%	1.53%
CERS Hazardous		5.35%	5.64%	2.96%	3.17%	2.08%	2.22%	1.54%	1.53%

*Note: Current Pension and Insurance benchmark is FTSE treasury Bill-3 Month. Plan returns are reported gross of fees.*

## Additional Schedules

The following schedules contain information on the assets under management for each firm CERS employs and assets managed by Investment Staff, external investment-related expenses, commissions paid, and portfolio summaries for each of the Pension and Insurance Plans for the fiscal year ended June 30, 2024.

<b>Investment Managers &amp; Assets Under Management by Fund and Asset Class</b>					
<b>As of June 30, 2024 (\$ in Thousands)</b>					
<b>Advisor/Asset Class</b>	<b>Pension</b>		<b>Insurance</b>		<b>CERS Total</b>
	<b>CERS Nonhazardous</b>	<b>CERS Hazardous</b>	<b>CERS Nonhazardous</b>	<b>CERS Hazardous</b>	
<b>Core Fixed Income</b>	<b>\$1,118,828</b>	<b>\$443,220</b>	<b>\$407,437</b>	<b>\$182,033</b>	<b>\$2,151,518</b>
Lord Abbett & Co.	480	169	225	102	976
Loomis, Sayles & Company Core	312,069	109,737	113,908	51,396	587,110
NISA Investment Advisors	342,088	120,292	135,635	61,200	659,215
Internally Managed by KPPA	464,191	213,022	157,669	69,335	904,217
<b>Private Equity</b>	<b>\$580,092</b>	<b>\$209,002</b>	<b>\$230,617</b>	<b>\$129,433</b>	<b>\$1,149,144</b>
Ares	13,538	4,621	5,939	3,212	27,310
Bay Hills	99,104	31,849	30,491	16,454	177,898
Black Diamond	39,886	13,614	22,779	12,321	88,600
Blackstone	9,791	4,732	5,612	3,359	23,494
Crestview	31,168	10,308	10,180	5,500	57,156
CVC	15,022	5,127	6,477	3,504	30,130
DAG Ventures	10,877	3,388	1,133	607	16,005
Harvest Partners	21,536	6,606	11,650	6,973	46,765
H.I.G.	10,113	4,030	5,303	3,050	22,496
Horsley Bridge	33,972	10,575	3,512	1,880	49,939
Kayne Anderson	20,206	6,293	11,684	7,055	45,238
Keyhaven	13,583	4,528	6,068	3,280	27,459
Leonard Green	34,508	14,307	23,391	14,040	86,246
Levine Leichtman	32,207	10,069	18,439	11,100	71,815
Middle Ground	82,814	27,181	23,882	12,354	146,231
New State	4,296	1,457	1,519	782	8,054
Strategic Value Partners	62,696	20,370	17,694	9,314	110,074
Triton	11,265	3,845	4,941	2,672	22,723
Vista	31,860	12,074	19,923	11,976	75,833
Internally Managed by KPPA	1,650	14,028	0	0	15,678
<b>Public Equity</b>	<b>\$5,062,043</b>	<b>\$1,783,957</b>	<b>\$1,887,510</b>	<b>\$909,938</b>	<b>\$9,643,448</b>
American Century Investments	273,362	95,538	101,792	47,431	518,123
Axiom	65,532	22,903	24,801	11,556	124,792
BlackRock ACWI Ex-US	560,032	196,059	229,193	113,937	1,099,221
Franklin Templeton	216,894	75,803	81,741	38,088	412,526
JP Morgan Emerging Markets	88,285	30,855	33,148	15,445	167,733
Lazard Asset Management	323,075	112,913	120,928	56,347	613,263
LSV Asset Management	337,067	117,802	126,423	58,908	640,200
Next Century	83,055	29,798	29,634	15,277	157,764
Northern Trust	210,498	75,520	74,526	38,420	398,964
Pzena Emerging Markets	111,250	38,881	41,519	19,346	210,996
River Road Asset Management	211,941	76,037	80,136	41,312	409,426
Westfield Capital	271,564	97,428	104,796	54,025	527,813
Internally Managed by KPPA	2,309,488	814,420	838,873	399,846	4,362,627
<b>Real Estate</b>	<b>\$506,224</b>	<b>\$161,221</b>	<b>\$183,063</b>	<b>\$100,453</b>	<b>\$950,961</b>
Barings Real Estate	42,768	13,524	14,960	8,210	79,462
Fundamental Partners	29,374	9,288	10,275	5,639	54,576

**CERS DRAFT 12-4-2024**

Harrison Street	135,541	42,395	50,801	27,787	256,524
Lubert-Adler	13,817	4,329	4,289	2,339	24,774
Patron	8,354	2,642	21,563	11,902	44,461
Mesa West	42,600	13,437	2,652	1,455	60,144
Prologis	160,876	50,871	51,931	28,499	292,177
Rubenstein	3,786	1,180	1,103	599	6,668
Stockbridge	56,722	18,087	23,747	13,082	111,638
Walton Street	10,704	3,636	1,742	941	17,023
Internally Managed by KPPA	1,682	1,832			3,514
<b>Real Return</b>	<b>\$386,995</b>	<b>\$136,292</b>	<b>\$129,485</b>	<b>\$62,558</b>	<b>\$715,330</b>
AMERRA	33,071	10,442	10,952	6,046	60,511
Arctos	28,176	12,076	13,753	4,696	58,701
BTG Pactual	16,520	5,294	4,861	2,671	29,346
IFM	41,443	14,272	14,511	7,477	77,703
Maritime Partners	64,834	25,933	27,786	11,114	129,667
Prisma	58,540	18,544	19,133	10,719	106,936
Tortoise	144,336	49,705	38,356	19,766	252,163
Internally Managed by KPPA	75	26	133	69	303
<b>Specialty Credit</b>	<b>\$1,929,104</b>	<b>\$664,682</b>	<b>\$723,854</b>	<b>\$332,402</b>	<b>\$3,650,042</b>
Adams Street	164,161	55,619	58,041	30,595	308,416
Arrowmark	347,828	114,986	140,445	76,513	679,772
Blue Torch	86,990	29,372	30,434	15,997	162,793
Benefit Street Partners	74,410	24,645	27,520	15,009	141,584
CapitalSpring	63,823	21,138	20,739	11,311	117,011
Cerberus	117,271	38,840	38,106	20,783	215,000
Columbia Threadneedle Investments	204,320	80,177	98,123	17,680	400,300
Manulife Investment Management	184,715	72,111	58,049	18,258	333,133
Marathon Asset Management	264,886	87,033	92,977	50,823	495,719
Shenkman Capital Management	146,415	49,351	57,809	21,419	274,994
Waterfall Asset Management	182,841	61,123	68,981	36,218	349,163
White Oak Global Advisors	91,444	30,287	32,630	17,796	172,157
<b>Other</b>	<b>\$44,709</b>	<b>\$13,727</b>	<b>\$19,106</b>	<b>\$10,282</b>	<b>\$87,824</b>
<b>Total Assets Under Management</b>	<b>\$9,627,995</b>	<b>\$3,412,101</b>	<b>\$3,581,072</b>	<b>\$1,727,099</b>	<b>\$18,348,267</b>



**CERS DRAFT 12-4-2024****External Investment Expenses - Pension Asset Class/Type Breakdown**

For the fiscal year ended June 30, 2024 (\$ in Thousands)

<b>CERS Nonhazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$8,019	\$3,445	\$678	\$10,758	\$-	\$2,999	\$4,243	\$30,142
Performance/Incentive Fees	-	1,946	36	19,816	-	(317)	(2,964)	\$18,517
Securities Lending Fees	107	-	27	32	-	15	-	\$181
Securities Lending Fee Rebate	7,284	-	961	1,448	-	481	-	\$10,174
Miscellaneous Fees & Expenses	136	2,585	49	22,461	-	1,069	2,619	\$28,919
Administration Fees	-	-	-	-	1,274	-	-	\$1,274
Consulting	-	-	-	-	562	-	-	\$562
Custodial Fees	-	-	-	-	913	-	-	\$913
	<b>\$15,546</b>	<b>\$7,976</b>	<b>\$1,751</b>	<b>\$54,515</b>	<b>\$2,749</b>	<b>\$4,247</b>	<b>\$3,898</b>	<b>\$90,682</b>

<b>CERS Hazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$2,821	\$1,139	\$236	\$3,643	\$-	\$1,095	\$1,338	\$10,272
Performance/Incentive Fees	-	704	13	6,570	-	(124)	(937)	\$6,226
Securities Lending Fees	38	-	10	12	-	5	-	\$65
Securities Lending Fee Rebate	2,593	-	337	558	-	165	-	\$3,653
Miscellaneous Fees & Expenses	47	859	17	7,602	-	407	828	\$9,760
Administration Fees	-	-	-	-	376	-	-	\$376
Consulting	-	-	-	-	197	-	-	\$197
Custodial Fees	-	-	-	-	323	-	-	\$323
	<b>\$5,499</b>	<b>\$2,702</b>	<b>\$613</b>	<b>\$18,385</b>	<b>\$895</b>	<b>\$1,548</b>	<b>\$1,229</b>	<b>\$30,872</b>

*NOTE: Miscellaneous expenses include Partnership Expenses, Commissions on Future Contracts, Fee for Long balance, and etc. The Governmental Accounting Standards Board recognizes that it may not be possible or cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses of the Plan. CERS has displayed all investment related fees and expenses identifiable and captured by our custodial bank, BNY Mellon and Investment Staff.*

**CERS DRAFT 12-4-2024****External Investment Expenses - Insurance Asset Class/Type Breakdown**

For the fiscal year ended June 30, 2024 (\$ in Thousands)

<b>CERS Nonhazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$2,987	\$1,558	\$252	\$3,818	\$-	\$1,124	\$1,542	\$11,281
Performance/Incentive Fees	-	1,267	15	7,269	-	(139)	(956)	\$7,456
Securities Lending Fees	37	-	11	14	-	4	-	\$66
Securities Lending Fee Rebates	1,705	-	361	650	-	141	-	\$2,857
Miscellaneous Fees & Expenses	51	1,180	21	8,111	-	437	913	\$10,713
Administration Fees	-	-	-	-	405	-	-	\$405
Consulting	-	-	-	-	212	-	-	\$212
Custodial Fees	-	-	-	-	504	-	-	\$504
	<b>\$4,780</b>	<b>\$4,005</b>	<b>\$660</b>	<b>\$19,862</b>	<b>\$1,121</b>	<b>\$1,567</b>	<b>\$1,499</b>	<b>\$33,494</b>

<b>CERS Hazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$1,468	\$872	\$110	\$1,921	\$-	\$505	\$846	\$5,722
Performance/Incentive Fees	-	734	7	3,940	-	(53)	(525)	\$4,103
Securities Lending Fees	18	-	5	5	-	2	-	\$30
Securities Lending Fee Rebates	853	-	158	203	-	73	-	\$1,287
Miscellaneous Fees & Expenses	24	655	9	4,299	-	189	501	\$5,677
Administration Fees	-	-	-	-	233	-	-	\$233
Consulting	-	-	-	-	103	-	-	\$103
Custodial Fees	-	-	-	-	243	-	-	\$243
	<b>\$2,363</b>	<b>\$2,261</b>	<b>\$289</b>	<b>\$10,368</b>	<b>\$579</b>	<b>\$716</b>	<b>\$822</b>	<b>\$17,398</b>

*NOTE: Miscellaneous expenses include Partnership Expenses, Commissions on Future Contracts, Fee for Long balance, and etc. The Governmental Accounting Standards Board recognizes that it may not be possible or cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses of the Plan. CERS has displayed all investment related fees and expenses identifiable and captured by our custodial bank, BNY Mellon and Investment Staff.*

**External Expenses**

For the fiscal year ended June 30, 2024 (\$ in Thousands)

<b>Expense</b>	<b>CERS Nonhazardous</b>		<b>CERS Hazardous</b>	
	<b>Fees Paid</b>	<b>Share of Total</b>	<b>Fees Paid</b>	<b>Share of Total</b>
<b>Portfolio Management</b>				
Pension Plans	\$78,852	63.50%	\$26,634	55.18%
Insurance Plans	29,855	24.04%	15,735	32.60%
<b>Securities Lending</b>				
Pension Plans	10,355	8.34%	3,718	7.70%
Insurance Plans	2,923	2.35%	1,317	2.73%
<b>Custody</b>				
Pension Plans	913	0.74%	323	0.67%
Insurance Plans	504	0.41%	243	0.50%
<b>Consultant</b>				
Pension Plans	562	0.45%	197	0.41%
Insurance Plans	212	0.17%	103	0.21%
<b>Total Pension Plans</b>	<b>90,682</b>	<b>73.03%</b>	<b>30,872</b>	<b>63.96%</b>
<b>Total Insurance Plans</b>	<b>33,494</b>	<b>26.97%</b>	<b>17,398</b>	<b>36.04%</b>
<b>Total Expenses</b>	<b>\$124,176</b>	<b>100.00%</b>	<b>\$48,270</b>	<b>100.00%</b>

**CERS DRAFT 12-4-2024****Schedule of Commissions Paid (in whole \$)**

For the fiscal year ended June 30, 2024

**CERS Nonhazardous**

Assets	Total Shares	Commissions Paid	Price per Share
U.S. Equities	26,965,210	\$502,666	0.0186
Non U.S. Equities	197,950,940	\$947,524	0.0048
<b>Total</b>	<b>224,916,150</b>	<b>\$1,450,190</b>	<b>0.0064</b>

**CERS Hazardous**

Assets	Total Shares	Commissions Paid	Price per Share
U.S. Equities	1,335,111	\$25,991	0.0195
Non U.S. Equities	10,672,576	\$51,151	0.0048
<b>Total</b>	<b>12,007,687</b>	<b>\$77,142</b>	<b>0.0064</b>

**Fair Values (FV)**

As of June 30, 2024 (\$ in Thousands)

	PENSION				INSURANCE				Total	
	CERS Nonhazardous		CERS Hazardous		CERS Nonhazardous		CERS Hazardous		Total	
	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV
<b>Equity</b>										
Public Equity	\$5,062,043	52.57%	\$1,783,957	52.28%	\$1,887,510	52.71%	\$909,938	52.69%	\$9,643,448	52.56%
Private Equity	614,763	6.38%	219,528	6.44%	246,966	6.90%	138,212	8.00%	\$1,219,470	6.65%
<b>Fixed Income</b>										
Core Fixed Income	966,551	10.04%	339,881	9.96%	361,986	10.11%	163,332	9.46%	\$1,831,751	9.98%
Specialty Credit	1,929,106	20.04%	664,683	19.48%	723,854	20.21%	332,402	19.25%	\$3,650,044	19.89%
Cash	152,040	1.58%	103,256	3.03%	45,451	1.27%	18,701	1.08%	\$319,447	1.74%
<b>Inflation Protected</b>										
Real Estate	507,979	5.28%	161,768	4.74%	183,572	5.12%	100,729	5.83%	\$954,049	5.20%
Real Return	395,513	4.11%	139,027	4.07%	131,733	3.68%	63,785	3.69%	\$730,059	3.98%
<b>TOTAL PORTFOLIO</b>	<b>\$9,627,995</b>		<b>\$3,412,100</b>		<b>\$3,581,072</b>		<b>\$1,727,099</b>		<b>\$18,348,266</b>	

## **ACTUARIAL**

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### **Certification of Actuarial Results**

Re: Certification for the Actuarial Results as of June 30, 2024.

*Dear Board of Trustees:*

Actuarial valuations are prepared annually as of June 30, for the County Employees Retirement System (CERS). These reports describe the current actuarial condition of the System and document the calculated employer contribution requirements as well as the changes in the financial condition since the prior actuarial valuation.

The Board of Trustees of the County Employees Retirement System must certify the employer contribution rates for CERS for the fiscal year beginning July 1, 2025 and ended June 30, 2026. The contribution requirements determined by June 30, 2024 actuarial valuations are intended to become effective twelve months after the valuation date and, as such, are intended to be used by the Board for recommending these required contributions effective July 1, 2025.

These contributions are calculated based on the membership data and plan assets as of June 30, 2024. These calculations are also based on the benefit provisions in effect as of June 30, 2024.

### **FINANCING OBJECTIVES AND FUNDING POLICY**

The Kentucky Public Pensions Authority (KPPA) administers pension and health insurance funds to provide for monthly retirement income and retiree health insurance benefits. The total employer contribution requirement is composed of a contribution to each respective fund.

The employer contribution for CERS is determined in accordance with Section 78.635 of Kentucky Statute. As specified by the Statute, the employer contribution is composed of a normal cost contribution and an actuarial accrued liability contribution. The actuarial accrued liability contribution is calculated by amortizing the unfunded accrued liability as of June 30, 2019 over a closed 30-year amortization period (25 years remaining as of June 30, 2024). Gains and losses incurring in years after June 30, 2019 are amortized as separate, closed 20-year amortization bases.

If the contributions made are equal to the Actuarially Determined Contribution (ADC), and if all actuarial assumptions are met, there will not be an unfunded accrued liability at the end of the 25-year period remaining from the original closed 30-year amortization base. Accordingly, the ADC under the funding policy can be considered a "Reasonable Actuarially Determined Contribution" as required by the Actuarial Standards of Practice.

### **PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, assumption changes, or actuarial losses, it should increase over time, until it reaches at least 100%. As of June 30, 2024, the funded ratios for the pension and health insurance plans are as follows:



Funding Level As of June 30												
System	2024		2023		2022		2021		2020		2019	
	Pension	Insurance	Pension	Insurance	Pension	Insurance	Pension	Insurance	Pension	Insurance	Pension	Insurance
CERS Nonhazardous	58.4%	122.3%	56.1%	131.5%	52.0%	132.1%	51.8%	85.4%	49.4%	78.5%	49.1%	70.7%
CERS Hazardous	54.0%	100.5%	51.4%	100.7%	47.6%	101.0%	46.7%	84.3%	45.1%	78.2%	45.3%	75.8%

**ASSUMPTIONS AND METHODS**

The Boards of Trustees, in consultation with the actuary, set the actuarial assumptions and methods used in the actuarial valuation. In general, the assumptions used in the June 30, 2024 actuarial valuations were adopted for first use in the June 30, 2023 actuarial valuations and are based on the experience study conducted through June 30, 2022.

In our opinion, all the assumptions and methods used for funding purposes adopted by the Board's Trustees satisfy the requirements in the Actuarial Standards of Practice that are applicable for actuarial valuations of public retirement systems.

It is our opinion that the actuarial assumptions used to perform these valuations are internally consistent and reasonably reflect the anticipated future experience of the Systems. The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can, and almost certainly will, differ as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution requirements, and funding periods. The actuarial calculations are intended to provide information for rational decision making.

**ADDITIONAL DISCLOSURES**

The benefit structure is outlined in this section of the annual report. GRS prepared the following schedules in the actuarial section: *Summary of Actuarial Valuation Results, Recommended Employer Contribution Rates, Summary of Actuarial Unfunded Liabilities, the Solvency Test, the Summary of Active Member Valuation Data, the Summary of Retired Member Valuation Data, Summary of the Assumptions and Methods, and the Summary of the Benefit Provisions.*

In addition, GRS prepared the following schedules in the financial section in accordance with GASB Statement No. 67: *Net Pension Liability Schedule, Discount Rate Sensitivity Analysis, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Net Pension Liability, and the Schedule of Employers' Contributions.*

**DATA**

Member data for retired, active and inactive members was supplied as of June 30, 2024, by KPPA staff. The staff also supplied asset information as of June 30, 2024. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us by KPPA.

**CERTIFICATION**

We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Retirement Systems as of June 30, 2024. All of our work conforms with generally accepted actuarial principles and practices, and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Kentucky Code of Laws and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Mr. White and Ms. Shaw are Enrolled Actuaries. All three of the undersigned are members of the American Academy of Actuaries and meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. In addition, all three are independent of KPPA and are experienced in performing valuations for large public retirement systems. This communication shall not be construed to provide tax advice, legal advice or investment advice.

Sincerely,

**Gabriel, Roeder, Smith & Co.**

Daniel J. White, FSA, EA, MAAA  
Senior Consultant

Janie Shaw, ASA, EA, MAAA  
Consultant

Krysti Kiesel, ASA, MAAA  
Consultant

## Summary of Actuarial Assumptions

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The results of the actuarial valuation are based upon the assumptions and funding policies adopted by the Board and statutory funding requirements. Assumptions and funding policies are reviewed against actual plan experience at least once every five years through the completion of the Actuarial Experience Study. In general, the assumptions and methods used in the June 30, 2024 valuation are based on the most recent actuarial experience study performed as of June 30, 2022, submitted, and adopted by the Board in May 2023.

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

**2. UAAL Amortization Method:** Effective for the June 30, 2019 valuation, the actuarial accrued liability contribution is calculated by amortizing the unfunded accrued liability as of June 30, 2019 over a closed 30-year amortization period. Gains and losses incurring in future years are amortized as separated closed 20-year amortization bases. This amortization cost is calculated using a 2.00% payroll growth assumption for the CERS Funds.

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

**4. Retiree Insurance Funding Policy:** Effective for the June 30, 2019 valuation, the actuarial accrued liability contribution is calculated by amortizing the unfunded accrued liability as of June 30, 2019, over a closed 30-year amortization period. Gains and losses incurring in future years are amortized as separated closed 20-year amortization bases. This amortization cost is calculated using a 2.00% payroll growth assumption for the CERS Funds.

**5. Investment Return Assumption:** The future investment earnings of plan assets are assumed to accumulate at a rate of 6.50% per annum. This rate consists of a 2.50% price inflation component and a 4.00% real rate of return component. This assumption was adopted in 2023.

**6. Salary Increase Assumptions:** Active member salaries are assumed to increase at the rates provided in Table 1. The rates include a price inflation and productivity component, and an additional increase due to promotion based upon plan experience. The price inflation component is 2.50% for all plans and the productivity component is 0.80% for the nonhazardous systems and 1.05% for the hazardous systems. This assumption was adopted in 2023.



**CERS DRAFT 12-4-2024****Table 1. Salary Increase Assumptions**

Service	CERS Nonhazardous	CERS Hazardous
0	10.30%	19.05%
1	7.30%	9.05%
2	6.30%	7.05%
3	5.30%	6.05%
4	5.05%	5.80%
5	4.80%	5.55%
6	4.55%	5.55%
7	4.30%	5.05%
8	4.05%	5.05%
9	4.05%	4.55%
10	3.80%	4.55%
11	3.80%	4.05%
12	3.55%	4.05%
13	3.55%	4.05%
14	3.55%	3.80%
15	3.30%	3.80%
16+	3.30%	3.55%

**7. Payroll Growth Assumption:** For purposes of determining the amortization cost to finance the unfunded actuarial accrued liability, the active member payroll in CERS (Nonhazardous and Hazardous) is assumed to increase at the rate of 2.00% per annum. This assumption was adopted in 2017.

**8. Retiree Cost of Living Adjustments (COLA):** SB2 only allows the Cost of Living Adjustments (COLAs) to be awarded on a biennial basis if the State Legislature so authorizes and either (i) the system is over 100% funded or (ii) the Legislature directs payment of employer contributions to fully prefund the increased liability for the COLA.

**9. Health Care Cost Trend Rate:**

The costs for retiree medical premiums are assumed to increase according to the assumptions provided in Table 2.

**Table 2: Health Care Cost Trend Rate (See footnotes 1-2)**

Year	Non-Medicare Plans <sup>(1)</sup>	Medicare Plans <sup>(1)</sup>	Dollar Contribution <sup>(2)</sup>
2026	7.10%	8.00%	1.50%
2027	7.00%	8.00%	1.50%
2028	6.80%	8.00%	1.50%
2029	6.60%	7.50%	1.50%
2030	6.40%	7.00%	1.50%
2031	6.20%	6.50%	1.50%
2032	6.00%	6.00%	1.50%
2033	5.80%	5.50%	1.50%
2034	5.60%	5.00%	1.50%
2035	5.40%	4.50%	1.50%
2036	5.20%	4.25%	1.50%
2037	5.00%	4.25%	1.50%
2038	4.75%	4.25%	1.50%
2039	4.50%	4.25%	1.50%
2040+	4.25%	4.25%	1.50%

<sup>(1)</sup> All increases are assumed to occur on January 1. The 2025 premiums were known at the time of the June 30, 2024, valuation and were incorporated into the liability measurement.

<sup>(2)</sup> Applies to members participating on or after July 1, 2003. All increases are assumed to occur on July 1.

# CERS DRAFT 12-4-2024

## 10. Retirement Rate Assumptions:

The probability, or the likelihood, that a member will retire at a specified age or level of service is provided in Table 3. These assumptions were adopted in 2023.

**Table 3a: Retirement Rate Assumptions CERS (See footnotes 1 - 3)**

	Nonhazardous					Hazardous		
	Normal Retirement		Early Retirement <sup>(1)</sup>			Members Participating before 9/1/2008 <sup>(2)</sup>	Members Participating between 9/1/2008 and 1/1/2014 <sup>(3)</sup>	
	Male	Female	Male	Female			Members Participating after 1/1/2014 <sup>(3)</sup>	
Under 45	35.00%	27.00%			5	17.00%		
45	35.00%	27.00%			6	17.00%		
46	35.00%	27.00%			7	17.00%		
47	35.00%	27.00%			8	17.00%		
48	35.00%	27.00%			9	17.00%		
49	35.00%	27.00%			10	17.00%		
50	30.00%	27.00%			11	17.00%		
51	30.00%	27.00%			12	17.00%		
52	30.00%	27.00%			13	17.00%		
53	30.00%	27.00%			14	17.00%		
54	30.00%	27.00%			15	17.00%		
55	30.00%	27.00%	4.00%	5.00%	16	17.00%		
56	30.00%	27.00%	4.00%	5.00%	17	17.00%		
57	30.00%	27.00%	4.00%	5.00%	18	17.00%		
58	30.00%	27.00%	4.00%	5.00%	19	17.00%		
59	30.00%	27.00%	4.00%	5.00%	20	30.00%		
60	30.00%	27.00%	4.00%	8.00%	21	22.50%		
61	30.00%	27.00%	4.00%	9.00%	22	18.00%		
62	30.00%	40.00%	15.00%	20.00%	23	21.00%		
63	30.00%	35.00%	15.00%	18.00%	24	24.00%		
64	30.00%	30.00%	15.00%	16.00%	25	27.00%	21.60%	16.00%
65	30.00%	30.00%			26	30.00%	24.00%	16.00%
66	30.00%	27.00%			27	33.00%	26.40%	16.00%
67	30.00%	27.00%			28	36.00%	28.80%	16.00%
68	30.00%	27.00%			29	39.00%	31.20%	16.00%
69	30.00%	27.00%			30+	39.00%	31.20%	100.00%
70	30.00%	27.00%						
71	30.00%	27.00%						
72	30.00%	27.00%						
73	30.00%	27.00%						
74	30.00%	27.00%						
75	100.00%	100.00%						

(1) The annual rate of retirement is 11% for male members and 12% for female members with 25-26 years of service.  
 (2) The annual rate of retirement is 100% at age 62.  
 (3) The annual rate of retirement is 100% at age 60.  
 Nonhazardous System: There is a 1% increase in the first two years a member becomes eligible under the age if 65. For members hired after 7/1/2003, the rates shown above are multiplied by 80% if the member is under age 65 to reflect the different retiree health insurance benefit.  
 Hazardous System: For members hired after 7/1/2003 and prior to 9/1/2008, the rates shown above are multiplied by 80% if the member is under age 62 to reflect the different retiree health insurance benefit.

**CERS DRAFT 12-4-2024**

**11. Mortality Assumptions:** Pre-retirement mortality: PUB-2010 General Mortality table, for the Nonhazardous Systems, and the PUB-2010 Public Safety Mortality table for the Hazardous Systems, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year of 2010.

Post-retirement mortality (non-disabled): System-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023.

Table 4a provides the life expectancy for a non-disabled retiree in future years based on the assumption with full generational projection.

Post-retirement mortality (disabled): PUB-2010 Disabled Mortality table, with rates multiplied by 150% for both male and female rates, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year of 2010.

These mortality assumptions were adopted in 2023. Table 4b provides sample annual rates of mortality in the base year of each table (2023 for the retired member mortality rates and 2010 for the active member and disabled member mortality rates).

**Table 4a: Life Expectancy for an Age 65 Retiree in Years**

Gender	Year of Retirement				
	2025	2030	2035	2040	2045
Male	19.8	20.2	20.6	21.0	21.3
Female	22.4	22.7	23.1	23.4	23.7

**Table 4b: Sample Annual Rate of Mortality**

Age	Active Member Mortality		Active Member Mortality		Retired Member Mortality		Disabled Member Mortality	
	Nonhazardous		Hazardous					
	Males	Females	Males	Females	Males	Females	Males	Females
20	0.04%	0.01%	0.04%	0.02%	0.03%	0.01%	0.62%	0.35%
22	0.03%	0.01%	0.04%	0.02%	0.03%	0.01%	0.53%	0.29%
32	0.04%	0.02%	0.04%	0.03%	0.04%	0.02%	0.59%	0.46%
42	0.08%	0.04%	0.07%	0.06%	0.07%	0.04%	1.14%	1.13%
52	0.18%	0.10%	0.14%	0.10%	0.32%	0.21%	2.73%	2.38%
62	0.37%	0.22%	0.32%	0.19%	0.94%	0.55%	4.02%	3.08%
72	0.84%	0.60%	0.98%	0.60%	2.38%	1.48%	6.52%	4.86%

# CERS DRAFT 12-4-2024

**12. Withdrawal Rates:** The probability, or likelihood, of active members terminating employment prior to retirement is provided in Table 5. The rates below include the pre-retirement mortality rates described in item #11. These assumptions were adopted in 2023.

Table 5: Selected Rates of Termination Prior to Retirement		
	CERS Nonhazardous	CERS Hazardous
Years of Service		
1	20.00%	20.00%
2	17.92%	10.48%
3	14.35%	8.33%
4	12.26%	7.06%
5	10.78%	6.18%
6	9.63%	5.47%
7	8.69%	4.91%
8	7.90%	4.43%
9	7.21%	4.01%
10	6.60%	3.66%
11	6.06%	3.32%
12	5.57%	3.02%
13	5.12%	2.76%
14	4.70%	2.51%
15	4.32%	2.28%
16	3.97%	2.07%
17	3.63%	1.86%
18	3.32%	1.68%
19	3.04%	1.50%
20	2.75%	1.33%
21	2.48%	0.00%
22	2.23%	0.00%
23	2.00%	0.00%
24	1.77%	0.00%
25	1.55%	0.00%
26+	0.00%	0.00%

**13. Rates of Disablement:** CERS provides disability benefits for those individuals meeting specific qualifications established by state law. This assumption provides the probability, or likelihood, that a member will become disabled during the course of employment for various age levels. These assumptions were adopted in 2023.

Table 6: Sample Rates of Disablement		
	CERS Nonhazardous	CERS Hazardous
Nearest Age	Probability	Probability
20	0.04%	0.06%
30	0.06%	0.11%
40	0.13%	0.24%
50	0.37%	0.67%
60	0.97%	1.75%

**CERS DRAFT 12-4-2024**

**14. Assumption Changes Since Prior Valuation:** In conjunction with the review of the healthcare per capita claims cost, the assumed increase in future healthcare costs, or trend assumption, is reviewed on an annual basis. The trend assumption for the non-Medicare Plans was increased during the select period and the ultimate trend assumption was increased for all plans as a result of this review.

## Summary of Actuarial Valuation Results

Summary of Actuarial Valuation Results		
	CERS Nonhazardous	CERS Hazardous
<b>Recommended Contribution Rate (FY 2025)<sup>(1)</sup></b>		
Pension Fund Contribution	18.62%	34.00%
Insurance Fund Contribution	0.00%	1.73%
Actuarially Determined Employer Contributions Rate, payable as a percentage of payroll	18.62%	35.73%
Amortization Cost to be Allocated, if applicable	N/A	N/A
<b>Funded Status as of Valuation Date As of June 30, 2024 (in Whole \$)</b>		
<b>Pension Fund</b>		
Actuarial Liability	\$15,776,491,221	\$6,070,200,056
Actuarial Value of Assets	9,211,734,622	3,279,622,763
Unfunded Liability on Actuarial Value of Assets	6,564,756,599	2,790,577,293
Funding Ratio on Actuarial Value of Assets	58.39%	54.03%
Market Value of Assets	9,596,243,603	3,416,897,041
Unfunded Liability on Market Value of Assets	\$6,180,247,618	\$2,653,303,015
Funding Ratio on Market Value of Assets	60.83%	56.29%
<b>Insurance Fund</b>		
Actuarial Liability	\$2,901,345,161	\$1,668,056,127
Actuarial Value of Assets	3,549,422,213	1,676,141,224
Unfunded Liability on Actuarial Value of Assets	(648,077,052)	(8,085,097)
Funding Ratio on Actuarial Value of Assets	122.34%	100.48%
Market Value of Assets	3,707,276,758	1,752,366,226
Unfunded Liability on Market Value of Assets	\$(805,931,597)	\$(84,310,099)
Funding Ratio on Market Value of Assets	127.78%	105.05%
<b>Member Data (See Footnotes)</b>		
Number of Active Members	80,440	9,678
Total Annual Payroll (Active Members)	\$3,137,813,810	\$743,132,767
Average Annual Pay (Active Members)	\$39,008	\$76,786
Number of Retired Members & Beneficiaries	72,385	11,853
Average Annual Retirement Allowance	\$12,201	\$27,764
Number of Vested Inactive Members	50,532	1,795
Number of Inactive Members Due a Refund	65,257	2,623

<sup>(1)</sup> Rates do reflect the CERS phase-in provisions, which limit the increases to the employer contribution rates to 12% over the prior fiscal year through June 30, 2028. However, the actuarially determined employer contribution rates are below this threshold for FYE2026, and therefore, the rates shown above are equal to the actuarially determined rates.

**CERS DRAFT 12-4-2024****Recommended Employer Contribution Rates****Recommended Employer Contribution Rates**

As of June 30

**CERS Nonhazardous Employers**

Valuation Date	Applicable Fiscal Year	Pension Fund Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Contribution
2015	2016-2017	3.80%	10.15%	13.95%	4.93%	18.88%
2016	2017-2018	3.70%	10.78%	14.48%	4.70%	19.18%
2017	2018-2019	5.85%	15.99%	21.84%	6.21%	28.05%
2018	2019-2020	5.80%	16.72%	22.52%	4.76%	27.28%
2019	2020-2021	6.63%	17.18%	23.81%	5.43%	29.24%
2020	2021-2022	6.46%	17.42%	23.88%	4.17%	28.05%
2021	2022-2023	6.30%	17.10%	23.40%	3.39%	26.79%
2022	2023-2024	6.06%	17.28%	23.34%	0.00%	23.34%
2023	2024-2025	5.29%	14.42%	19.71%	0.00%	19.71%
2024	2025-2026	5.22%	13.40%	18.62%	0.00%	18.62%

**CERS Hazardous Employers**

Valuation Date	Applicable Fiscal Year	Pension Fund Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Contribution
2015	2016-2017	4.52%	17.19%	21.71%	9.79%	31.50%
2016	2017-2018	4.40%	17.80%	22.20%	9.35%	31.55%
2017	2018-2019	6.78%	28.91%	35.69%	12.17%	47.86%
2018	2019-2020	6.35%	30.63%	36.98%	9.52%	46.50%
2019	2020-2021	11.36%	30.66%	42.02%	9.86%	51.88%
2020	2021-2022	11.00%	32.23%	43.23%	8.73%	51.96%
2021	2022-2023	10.71%	32.10%	42.81%	6.78%	49.59%
2022	2023-2024	10.34%	30.77%	41.11%	2.58%	43.69%
2023	2024-2025	9.77%	26.72%	36.49%	2.12%	38.61%
2024	2025-2026	9.48%	24.52%	34.00%	1.73%	35.73%

The insurance fund contribution rates and the employer contribution rates for CERS Nonhazardous and CERS Hazardous shown in the above tables are the full funding rates presented by the actuary in the 2015 through 2024 annual valuations. However, in 2006 the actuary recommended a five-year phase-in of the rate which requires the payment of the insurance benefit normal cost with a five-year phase-in of the unfunded accrued liability (UAL) associated with the insurance funds. In 2008 this recommendation was changed to a ten-year phase-in from the initial starting date. This phase-in was complete and the full actuarial rates were paid in FYE 2018. HB 362 (passed during the 2018 legislative session) limited the employer contribution rate increases to 12% per year over the prior fiscal year for the period of July 1, 2018 to June 30, 2028. SB 249 (passed during the 2020 legislative session) froze the contribution rates for one year so that the rates for FYE 2021 were equal to FYE 2020. As of FYE 2023, the CERS contributions rates were fully phased-in and the actual employer contribution rates equaled the actuarially determined rates shown above.

**CERS DRAFT 12-4-2024****Summary of Actuarial Unfunded Liabilities****Summary of Actuarial Unfunded Liabilities**

As of June 30 (\$ in Thousands)

**CERS Nonhazardous Pension Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$10,740,325	\$6,474,849	\$6,416,854	\$4,265,477	\$4,323,472	60.29%	59.75%
2016	11,076,457	6,535,372	6,106,187	4,541,084	4,970,270	59.00%	55.13%
2017	12,803,509	6,764,873	6,687,237	6,038,636	6,116,272	52.84%	52.23%
2018	13,191,505	6,950,225	7,018,963	6,241,280	6,172,542	52.69%	53.21%
2019	14,356,114	7,049,527	7,159,921	7,306,587	7,196,192	49.10%	49.87%
2020	14,610,867	7,220,607	7,027,327	7,390,260	7,583,540	49.42%	48.10%
2021	14,894,907	7,715,884	8,565,652	7,179,023	6,329,254	51.80%	57.51%
2022	15,674,220	8,148,912	7,963,586	7,525,308	7,710,634	51.99%	50.81%
2023	15,296,428	8,585,072	8,672,597	6,711,356	6,623,831	56.12%	56.70%
2024	\$15,776,491	\$9,211,735	\$9,596,244	\$6,564,757	\$6,180,248	58.39%	60.83%

**CERS Nonhazardous Insurance Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$2,907,827	\$1,997,456	\$1,948,454	\$910,371	\$959,373	68.69%	67.01%
2016	2,988,121	2,079,811	1,943,757	908,310	1,044,364	69.60%	65.05%
2017	3,355,151	2,227,401	2,212,536	1,127,750	1,142,616	66.39%	65.94%
2018	3,092,623	2,371,430	2,414,126	721,193	678,497	76.68%	78.06%
2019	3,567,947	2,523,249	2,569,511	1,044,698	998,435	70.72%	72.02%
2020	3,392,086	2,661,351	2,581,613	730,735	810,473	78.46%	76.11%
2021	3,450,485	2,947,312	3,246,801	503,172	203,683	85.42%	94.10%
2022	2,391,990	3,160,084	3,079,984	(768,094)	(687,994)	132.11%	128.76%
2023	2,560,387	3,366,332	3,398,375	(805,945)	(837,988)	131.48%	132.73%
2024	\$2,901,345	\$3,549,422	\$3,707,277	\$(648,077)	\$(805,932)	122.34%	127.78%

**CERS Hazardous Pension Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$3,613,308	\$2,096,783	\$2,073,397	\$1,516,525	\$1,539,911	58.03%	57.38%
2016	3,704,456	2,139,119	2,003,669	1,565,337	1,700,787	57.74%	54.09%
2017	4,649,047	2,238,320	2,217,996	2,410,726	2,431,051	48.15%	47.71%
2018	4,792,548	2,321,721	2,348,337	2,470,827	2,444,211	48.44%	49.00%
2019	5,245,365	2,375,106	2,413,708	2,870,258	2,831,657	45.28%	46.02%
2020	5,431,298	2,447,885	2,379,704	2,983,413	3,051,595	45.07%	43.81%
2021	5,629,458	2,628,621	2,914,408	3,000,837	2,715,050	46.69%	51.77%
2022	5,861,691	2,788,714	2,718,234	3,072,977	3,143,457	47.58%	46.37%
2023	5,849,996	3,008,147	3,035,192	2,841,849	2,814,804	51.42%	51.88%
2024	\$6,070,200	\$3,279,623	\$3,416,897	\$2,790,577	\$2,653,303	54.03%	56.29%

# CERS DRAFT 12-4-2024

CERS Hazardous Insurance Plan							
Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$1,504,015	\$1,087,707	\$1,061,561	\$416,308	\$442,454	72.32%	70.58%
2016	1,558,818	1,135,784	1,062,602	423,034	496,216	72.86%	68.17%
2017	1,788,433	1,196,780	1,189,001	591,653	599,431	66.92%	66.48%
2018	1,684,028	1,256,306	1,280,982	427,722	403,046	74.60%	76.07%
2019	1,732,879	1,313,659	1,340,714	419,221	392,165	75.81%	77.37%
2020	1,740,971	1,362,028	1,321,117	378,943	419,854	78.23%	75.88%
2021	1,751,203	1,475,635	1,627,824	275,568	123,379	84.26%	92.95%
2022	1,538,131	1,553,761	1,522,671	(15,630)	15,460	101.02%	98.99%
2023	1,604,147	1,615,349	1,634,192	(11,202)	(30,045)	100.70%	101.87%
2024	\$1,668,056	\$1,676,141	\$1,752,366	\$(8,085)	\$(84,310)	100.48%	105.05%

## Solvency Test

### Solvency Test As of June 30 (\$ in Thousands)

CERS Nonhazardous Pension Plan							
Actuarial Liabilities							
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets		
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)
2015	\$1,216,585	\$6,489,863	\$3,033,878	\$6,474,849	100.00%	81.00%	0.00%
2016	1,231,027	6,785,530	3,059,900	6,535,372	100.00%	78.20%	0.00%
2017	1,277,432	7,731,682	3,794,396	6,764,873	100.00%	71.00%	0.00%
2018	1,269,287	8,196,719	3,725,500	6,950,225	100.00%	69.30%	0.00%
2019	1,280,679	8,905,545	4,169,890	7,049,527	100.00%	64.80%	0.00%
2020	1,312,554	9,088,237	4,210,077	7,220,607	100.00%	65.00%	0.00%
2021	1,324,826	9,397,968	4,172,112	7,715,883	100.00%	68.00%	0.00%
2022	1,335,758	10,021,345	4,317,117	8,148,912	100.00%	68.00%	0.00%
2023	1,341,594	9,791,605	4,163,230	8,585,073	100.00%	74.00%	0.00%
2024	\$1,384,947	\$10,056,035	\$4,335,509	\$9,211,735	100.00%	77.80%	0.00%

CERS Nonhazardous Insurance Plan							
Actuarial Liabilities							
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets		
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)
2015	\$-	\$1,372,597	\$1,535,231	\$1,997,456	100.00%	100.00%	40.70%
2016	-	1,484,937	1,503,184	2,079,811	100.00%	100.00%	39.60%
2017	-	1,603,438	1,751,713	2,227,401	100.00%	100.00%	35.60%
2018	-	1,525,322	1,567,301	2,371,430	100.00%	100.00%	54.00%
2019	-	1,830,692	1,737,255	2,523,249	100.00%	100.00%	39.90%
2020	-	1,746,160	1,645,926	2,661,351	100.00%	100.00%	55.60%
2021	-	1,835,734	1,614,751	2,947,312	100.00%	100.00%	68.80%
2022	-	1,055,375	1,336,615	3,160,084	100.00%	100.00%	100.00%
2023	-	1,256,529	1,303,858	3,366,332	100.00%	100.00%	100.00%
2024	\$-	\$1,510,962	\$1,390,383	\$3,549,422	100.00%	100.00%	100.00%



**CERS DRAFT 12-4-2024****CERS Hazardous Pension Plan**

Actuarial Liabilities								
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets			
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)	
2015	\$422,359	\$2,297,703	\$893,246	\$2,096,783	100.00%	72.90%	0.00%	
2016	428,713	2,388,712	887,031	2,139,119	100.00%	71.60%	0.00%	
2017	458,808	2,910,601	1,279,638	2,238,320	100.00%	61.10%	0.00%	
2018	442,637	3,151,057	1,198,853	2,321,721	100.00%	59.60%	0.00%	
2019	458,559	3,399,954	1,386,852	2,375,106	100.00%	56.40%	0.00%	
2020	454,801	3,606,091	1,370,407	2,447,885	100.00%	55.30%	0.00%	
2021	457,391	3,777,313	1,394,754	2,628,621	100.00%	57.50%	0.00%	
2022	468,325	3,915,964	1,477,402	2,788,714	100.00%	59.30%	0.00%	
2023	476,005	3,905,983	1,468,008	3,008,147	100.00%	64.80%	0.00%	
2024	\$509,070	\$4,019,097	\$1,542,033	\$3,279,623	100.00%	68.90%	0.00%	

**CERS Hazardous Insurance Plan**

Actuarial Liabilities								
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets			
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)	
2015	\$-	\$790,714	\$713,301	\$1,087,707	100.00%	100.00%	41.60%	
2016	-	879,360	679,458	1,135,784	100.00%	100.00%	37.70%	
2017	-	994,764	793,669	1,196,780	100.00%	100.00%	25.50%	
2018	-	1,001,717	682,311	1,256,306	100.00%	100.00%	37.30%	
2019	-	1,072,861	660,018	1,313,659	100.00%	100.00%	36.50%	
2020	-	1,154,389	586,582	1,362,028	100.00%	100.00%	35.40%	
2021	-	1,217,527	533,676	1,475,635	100.00%	100.00%	48.40%	
2022	-	1,045,022	493,109	1,553,761	100.00%	100.00%	100.00%	
2023	-	1,163,315	440,832	1,615,349	100.00%	100.00%	100.00%	
2024	\$-	\$1,237,542	\$430,514	\$1,676,141	100.00%	100.00%	100.00%	

## Member Valuation

### Summary of Active Member Valuation Data

As of June 30 (\$ in Thousands)

#### CERS Nonhazardous Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Total Active Members	Annual Covered Payroll <sup>(1)</sup>	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
2015	1,092	80,852	\$2,296,716	\$28	1.40%	48.0	9.5
2016	1,095	80,664	2,352,762	29	2.70%	47.9	9.4
2017	1,096	82,198	2,452,407	30	2.29%	47.9	9.4
2018	1,092	81,818	2,466,801	30	1.06%	47.7	9.2
2019	1,094	81,506	2,521,860	31	2.62%	47.7	9.1
2020	1,087	81,250	2,565,391	32	2.05%	47.8	9.1
2021	1,084	77,367	2,528,735	33	3.52%	48.0	9.4
2022	1,084	77,849	2,691,171	35	5.76%	47.6	9.1
2023	1,086	78,810	2,898,813	37	6.40%	47.3	8.8
2024	1,078	80,440	\$3,137,814	\$39	6.05%	47.0	8.6

#### CERS Hazardous Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Total Active Members	Annual Covered Payroll <sup>(1)</sup>	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
2015	246	9,172	483,641	53	1.20%	39.1	10.6
2016	246	9,084	492,851	54	2.90%	39.1	10.6
2017	250	9,495	541,633	57	5.14%	39.2	10.5
2018	247	9,263	533,618	58	0.99%	38.5	10.2
2019	243	9,474	559,353	59	2.49%	38.6	10.1
2020	243	9,419	568,558	60	2.24%	38.4	10.0
2021	241	9,173	578,355	63	4.45%	38.4	10.0
2022	240	9,184	620,934	68	7.23%	38.3	10.0
2023	239	9,205	677,988	74	8.94%	38.1	9.8
2024	239	9,678	743,133	77	4.25%	37.7	9.6

<sup>(1)</sup> Annual payroll included in the Schedule of Active Member Valuation Data is based upon the annualized monthly payroll for active members as of the valuation date. The annual payroll recorded in the financial section is based upon the sum of the monthly payroll for active members recorded for each month of fiscal year ended June 30, 2024.

# CERS DRAFT 12-4-2024

## Summary of Retired Member Valuation Data As of June 30 (\$ in Thousands)

### CERS Nonhazardous Schedule of Retired Member Valuation Data

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances Added	Annualized Retirement Allowances Removed	Annualized Retirement Allowances <sup>(1)</sup>	% Increase In Allowances	Average Annual Allowance
2015	4,020	1,304	52,651	\$44,962	\$10,369	\$617,551	5.93%	\$12
2016	4,409	721	56,339	49,487	5,822	661,217	7.07%	12
2017	4,141	1,467	59,013	47,074	40,823	667,468	0.95%	11
2018	4,650	1,725	61,938	57,343	14,436	710,374	6.43%	11
2019	4,472	1,871	64,539	53,392	16,649	747,117	5.17%	12
2020	3,550	2,675	65,414	40,409	24,066	763,459	2.19%	12
2021	4,350	2,558	67,206	51,859	23,756	791,562	3.68%	12
2022	4,693	3,010	68,889	58,456	29,341	820,678	3.68%	12
2023	4,753	2,710	70,932	62,416	27,922	855,173	4.20%	12
2024	4,203	2,750	72,385	\$55,348	\$27,329	\$883,192	3.28%	\$12

### CERS Hazardous Schedule of Retired Member Valuation

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances Added	Annualized Retirement Allowances Removed	Annualized Retirement Allowances <sup>(1)</sup>	% Increase In Allowances	Average Annual Allowance
2015	526	138	8,034	\$13,430	\$2,284	\$202,153	5.84%	\$25
2016	604	75	8,563	14,642	1,494	215,302	6.50%	25
2017	576	141	8,998	15,102	3,724	226,680	5.28%	25
2018	779	190	9,587	22,292	3,297	245,675	8.38%	26
2019	608	172	10,023	16,096	2,957	258,813	5.35%	26
2020	621	192	10,452	19,621	3,643	274,791	6.17%	26
2021	651	245	10,858	18,939	4,855	288,876	5.13%	27
2022	674	301	11,231	19,629	6,539	301,966	4.53%	27
2023	672	300	11,603	21,528	5,964	317,529	5.15%	27
2024	548	298	11,853	\$17,709	\$6,150	\$329,089	3.64%	\$28

<sup>(1)</sup> The Annualized Retirement Allowance is the annualized value of the monthly retirement allowance for retired members and beneficiaries as of the valuation date. Consequently, the values will not match the fiscal year total benefit payments recorded in the financial section. Headcounts and hazardous benefits for members receiving benefits in both the nonhazardous and hazardous fund have been included in the hazardous funds' summaries above. Additional \$30,693,000 in CERS Nonhazardous annual benefits not included in June 30, 2024 summary above.

## Summary of Benefit Provisions CERS Plans

### Plan Funding

State statute requires active members to contribute 5% of creditable compensation for nonhazardous members and 8% of creditable compensation for hazardous members. For members participating on or after September 1, 2008, an additional 1% of creditable compensation is required. This amount is credited to the Insurance Fund and is non-refundable to the member. Employers contribute at the rate determined by the Board to be necessary for the actuarial soundness of the systems, as required by KRS 78.635.

### Membership Eligibility

For all regular full-time non-school board employees to be eligible for membership, they must average 100 or more hours of work per month over a fiscal or calendar year. For all regular full-time school board employees to be eligible for membership, they must average 80 hours of work per month over the actual days worked during the school year.

#### Retirement Eligibility for Nonhazardous Employees

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

#### Retirement Eligibility for Hazardous

Age	Years of Service	Allowance Reduction
<b>Tier 1 Members Whose Participation Began Before 9/1/2008</b>		
55	1 month	None
Any	20	None
50	15	6.5% per year for first five years, and 4.5% for next five years before age 55 or 20 years of service.
<b>Tier 2 Members Whose Participation Began On or After 9/1/2008 but before 1/1/2014</b>		
60	5	None
Any	25	None
50	15	6.5% per year for first five years, and 4.5% for next five years before age 60 or 25 years of service.
<b>Tier 3 Members Whose Participation Began On or After 1/1/2014</b>		
60	5	None
Any	25	None

# CERS DRAFT 12-4-2024

**Benefit Formula for Nonhazardous**  
**Tier 1: Members whose participation began before 9/1/2008**

Final Compensation	Benefit Factor	Years of Service
Average of the five highest years of compensation	CERS 2.20% if: <hr/> CERS 2.00% if:	Member begins participating prior to 8/1/2004. <hr/> Member begins participating on or after 8/1/2004 but before 9/1/2008.
		Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).

If a member retires with less than four years of service credit, the member's benefit is equal to the actuarially equivalent of two times their member contribution balance with interest.

**Benefit Formula Nonhazardous**  
**Tier 2: Members whose participation began on or after 9/1/2008 but before 1/1/2014**

Final Compensation	Benefit Factor	Years of Service										
Average of the last five years of compensation	CERS increasing percent based on service at retirement up to 30 years* plus 2.00% for each year of service over 30 years <hr/> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">*Service</th> <th style="text-align: left;">Multiplier</th> </tr> <tr> <td>10 years or less</td> <td>1.10%</td> </tr> <tr> <td>10-20 years</td> <td>1.30%</td> </tr> <tr> <td>20-26 years</td> <td>1.50%</td> </tr> <tr> <td>26-30 years</td> <td>1.75%</td> </tr> </table>	*Service	Multiplier	10 years or less	1.10%	10-20 years	1.30%	20-26 years	1.50%	26-30 years	1.75%	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
*Service	Multiplier											
10 years or less	1.10%											
10-20 years	1.30%											
20-26 years	1.50%											
26-30 years	1.75%											

# CERS DRAFT 12-4-2024

**Benefit Formula for Hazardous for Tier 1: Members whose participation began before 9/1/2008**

Final Compensation	Benefit Factor	Years of Service
Average of the three highest years of compensation	CERS 2.50% if: _____	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
If a member retires with less than four years of service, the member's benefit is equal to the actuarially equivalent of two times their member contribution balance with interest.		

**Benefit Formula for Hazardous for Tier 2: Members whose participation began on or after 9/1/2008 but before 1/1/2014**

Final Compensation	Benefit Factor	Years of Service										
Average of the three highest complete years of compensation	CERS increasing percent based on service at retirement* <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;">*Service</td> <td style="border-bottom: 1px solid black;">Multiplier</td> </tr> <tr> <td>10 years or less</td> <td>1.30%</td> </tr> <tr> <td>10-20 years</td> <td>1.50%</td> </tr> <tr> <td>20-25 years</td> <td>2.25%</td> </tr> <tr> <td>25+ years</td> <td>2.50%</td> </tr> </table>	*Service	Multiplier	10 years or less	1.30%	10-20 years	1.50%	20-25 years	2.25%	25+ years	2.50%	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
*Service	Multiplier											
10 years or less	1.30%											
10-20 years	1.50%											
20-25 years	2.25%											
25+ years	2.50%											

**Benefit Formula for Hazardous for Tier 3: Members whose participation began on or after 1/1/2014**

Each year that the member is active, a 7.50% employer pay credit and the employee's 8.00% contribution will be credited to each member's hypothetical cash balance account. The hypothetical account will earn interest at a minimum rate of 4%, annually. If the geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest in that year equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year. At retirement, the member's hypothetical account balance may be converted into an annuity based on an actuarial factor.

**Benefit Formula**  
**Tier 3: Members whose participation began on or after 1/1/2014**  
**Accumulated Account Balance / Actuarial Factor = Monthly Life Annuity**

Accumulated Account Balance					Actuarial Factor
Member Contributions	Employer Contributions	Base Annual Interest	Upside Sharing Interest (FY 2024)		
<b>CERS Nonhazardous</b>	5.00%	4.00%	4.00%	6.75%	
<b>CERS Hazardous</b>	8.00%	7.50%	4.00%	6.89%	

*Note: Accumulated Account Balance is composed of member contributions, employer contributions, annual interest and annual upside sharing interest. For additional information on the calculation of the annual interest for Tier 3 see Upside Sharing Interest in Note B.*  
*Note: Please see Plan Provisions for additional details.*

## Post-Retirement Death Benefits

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

## Disability Benefits

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

Members participating on or after 8/1/2004 but before 1/1/2014 may qualify for disability retirement provided the member has at least 60 months of service credit\*. Nonhazardous benefits are computed as the higher of 20% of the member's monthly final rate of pay or the amount calculated under the Benefit Formula based upon actual service. Hazardous benefits are computed as the higher of 25% of the member's monthly final rate of pay or the amount calculated under the Benefit Formula based upon actual service.

Members participating on or after 1/1/2014 may retire on account of disability provided the member has at least 60 months of service credit. The benefit to the member is the higher of 20% or 25% of the member's monthly final rate of pay for nonhazardous and hazardous, respectively or the Annuity amount using the factor at the member's normal retirement age.

Members disabled as a result of a single duty-related injury, act of violence related to their job or in the line of duty may be eligible for additional benefits.

\*Service requirements may be waived if line of duty or duty related.

## Pre-Retirement Death Benefits

The beneficiary of a deceased member is eligible for a monthly benefit if the member died while in the line of duty or duty related death. The beneficiary of a deceased member who did not die in the line of duty is eligible for a monthly benefit if the member was: (1) eligible for retirement at the time of death or, (2) under the age of 55 with at least 60 months of service credit and currently working for a participating agency at the time of death or (3) no longer working for a participating agency but at the time of death had at least 144 months of service credit. If the beneficiary of a deceased member is not eligible for a monthly benefit, the beneficiary will receive a lump-sum payment of the member's accumulated account balance.

## Cost of Living Adjustment (COLA)

SB2 of 2013 eliminated all future COLAs unless the State Legislature so authorizes on a biennial basis and either (i) the system is over 100% funded or (ii) the Legislature directs payment of employer contributions to fully prefund the increased liability for the COLA.

## Insurance Benefits

For members participating prior to July 1, 2003, the system pays a percentage of the monthly premium for single coverage based on the service credit accrued at retirement. Hazardous members also receive a percentage paid for eligible spouse or dependent coverage based on the accrued hazardous service at retirement.

For members participating on or after July 1, 2003, a dollar contribution amount is paid toward insurance coverage. Any portion paid toward eligible spouse and dependent coverage is based on the member's hazardous service credit. The member must have a minimum of 10 years of service to be eligible for insurance benefits if the participation date is between July 1, 2003 and August 31, 2008, and a 15 years of service if the participation date is on or after September 1, 2008. A nonhazardous member will receive \$10 for each year of service and hazardous members receive \$15 for each year of service. Since July 2004, the dollar amount increases annually on July 1 by 1.5%. Members can earn an additional dollar contribution amount if they surpass the career threshold defined in Kentucky Revised Statute 78.5536.

## **Refunds**

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

## **Interest on Accounts**

For employees participating prior to September 1, 2008, the interest paid is set by the Board of Trustees and will not be less than 2.0%, for employees participating on or after September 1, 2008 but before January 1, 2014, interest will be credited at a rate of 2.5%. For employees participating on or after January 1, 2014, interest will be credited at a minimum rate of 4.0%.

## **Benefit Changes since the Prior Valuation**

There have been no benefit changes since the prior valuation.



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## Plan Statistics

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### Definitions

Active members are those members who are currently employed by a participating agency and contributing to CERS as a condition of employment.

Inactive members are those members who are no longer employed with a participating agency but have not yet retired or taken a refund of contributions.

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

A single member may have multiple accounts. For these tables, persons who participate in both hazardous and nonhazardous plans will appear in each plan in which they have service credit.

These tables do not include individuals receiving payments under dependent child accounts, Qualified Domestic Relations Orders (QDRO), or multiple beneficiary accounts.

**CERS DRAFT 12-4-2024****CERS Nonhazardous Membership As of June 30**

<b>Fiscal Year</b>	<b>Active</b>	<b>Inactive</b>	<b>Retired</b>	<b>Total</b>
2015	85,782	78,054	55,510	219,346
2016	85,912	81,427	59,466	226,805
2017	86,873	84,410	62,262	233,545
2018	86,536	87,167	65,415	239,118
2019	86,334	90,990	68,146	245,470
2020	84,932	96,610	70,126	251,668
2021	81,600	101,418	73,501	256,519
2022	81,548	107,279	75,517	264,344
2023	82,471	112,935	77,341	272,747
2024	83,956	118,064	78,976	280,996

**CERS Hazardous Membership As of June 30**

<b>Fiscal Year</b>	<b>Active</b>	<b>Inactive</b>	<b>Retired</b>	<b>Total</b>
2015	10,225	3,290	8,051	21,566
2016	10,044	3,084	8,639	21,767
2017	10,188	3,267	9,100	22,555
2018	10,135	3,404	9,698	23,237
2019	10,291	3,526	10,133	23,950
2020	10,174	3,804	10,618	24,596
2021	9,933	4,151	11,138	25,222
2022	9,987	4,422	11,513	25,922
2023	10,031	4,665	11,886	26,582
2024	10,548	4,833	12,141	27,522

**County Employees Retirement System Membership Totals As of June 30**

<b>Fiscal Year</b>	<b>Active</b>	<b>Inactive</b>	<b>Retired</b>	<b>Total</b>
2015	96,007	81,344	63,561	240,912
2016	95,956	84,511	68,105	248,572
2017	97,061	87,677	71,362	256,100
2018	96,671	90,571	75,113	262,355
2019	96,625	94,516	78,279	269,420
2020	95,106	100,414	80,744	276,264
2021	91,533	105,569	84,639	281,741
2022	91,535	111,701	87,030	290,266
2023	92,502	117,600	89,227	299,329
2024	94,504	122,897	91,117	308,518

## Participating Employers

### Principal Participating Employers in CERS As of June 30, 2024

Participating Employer	Rank	Covered Employees	% of Total System
JEFFERSON COUNTY BOARD OF EDUCATION	1	5,023	5.43%
LOUISVILLE JEFFERSON COUNTY METRO GOVERNMENT	2	4,690	5.07%
FAYETTE COUNTY BOARD OF EDUCATION	3	2,041	2.21%
LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT	4	1,713	1.85%
JUDICIAL DEPARTMENT ADMINISTRATIVE OFFICE OF THE COURTS	5	1,496	1.62%
HARDIN COUNTY BOARD OF EDUCATION	6	1,137	1.23%
BOONE COUNTY BOARD OF EDUCATION	7	1,130	1.22%
SCOTT COUNTY BOARD OF EDUCATION	8	978	1.06%
WARREN COUNTY BOARD OF EDUCATION	9	931	1.01%
BULLITT COUNTY BOARD OF EDUCATION	10	912	0.99%
ALL OTHERS		72,350	78.31%
<b>Total</b>		<b>92,401</b>	<b>100.00%</b>

**CERS DRAFT 12-4-2024****Schedule of Participating Employers in CERS As of June 30, 2024**

<b>Agency Classification</b>	<b>Number of Agencies</b>	<b>Covered Employees</b>
Airport Boards	5	551
Ambulance Services	19	429
Area Development Districts	14	717
Boards of Education	171	46,122
Cities	222	10,642
Community Action Agencies	21	2,938
Conservation Districts	48	57
County Attorneys	73	531
County Clerks	16	585
Development Authorities	7	11
Fire Departments	29	1,183
Fiscal Courts	118	11,348
Hospitals & Clinics (incl. Dental)	1	318
Housing Authorities	39	404
Jailers	2	69
Libraries	86	1,336
Other Retirement Systems	2	2
P1 State Agencies	4	1,497
Parks and Recreation	7	64
Planning Commissions	16	195
Police Departments	2	15
Riverport Authorities	5	68
Sanitation Districts	8	325
Sheriff Departments	12	772
Special Districts & Boards	46	1,425
Tourist Commissions	25	205
Urban Government Agencies	2	6,403
Utility Boards	120	4,189
<b>Total</b>	<b>1,120</b>	<b>92,401</b>
<b>Total Employees By Tier Levels</b>		
<b>Tier 1</b>		<b>23,241</b>
<b>Tier 2</b>		<b>11,888</b>
<b>Tier 3</b>		<b>57,272</b>

## Member Monthly Benefit

### Average Monthly Benefit by Length of Service in CERS As of June 30, 2024 (in Whole \$)

Service Credit Range	CERS Nonhazardous		CERS Hazardous	
	Number of Accounts	Average Monthly Benefit	Number of Accounts	Average Monthly Benefit
Under 5 years	11,858	\$188	1,388	\$519
5 or more but less than 10	11,748	348	1,166	716
10 or more but less than 15	12,140	548	1,154	1,291
15 or more but less than 20	10,483	842	1,336	1,922
20 or more but less than 25	13,475	1,051	4,947	2,754
25 or more but less than 30	15,090	1,972	1,645	3,779
30 or more but less than 35	3,298	2,731	420	4,548
35 or more	884	3,843	85	5,696
<b>Total</b>	<b>78,976</b>	<b>\$989</b>	<b>12,141</b>	<b>\$2,294</b>

Note: These tables reflect the Average Monthly Pension Benefit. A single member may have multiple accounts, which contribute to one pension. These tables do not reflect dependent child accounts, Qualified Domestic Relations Order (QDRO) accounts or multiple beneficiary accounts.

## Fiduciary Net Position

### Fiduciary Net Position - CERS

As of June 30 (\$ in Thousands)

Fiscal Year	Nonhazardous			Hazardous		
	Pension	Insurance	Total	Pension	Insurance	Total
2015	\$6,440,800	\$1,920,946	\$8,361,746	\$2,078,202	\$1,056,480	\$3,134,682
2016	6,141,396	1,908,550	8,049,946	2,010,177	1,056,097	3,066,274
2017	6,739,142	2,160,553	8,899,695	2,227,679	1,179,313	3,406,992
2018	7,086,322	2,346,767	9,433,089	2,361,047	1,268,272	3,629,319
2019	7,242,975	2,486,458	9,729,433	2,429,613	1,324,809	3,754,422
2020	7,110,889	2,498,051	9,608,940	2,395,688	1,305,132	3,700,820
2021	8,670,667	3,141,786	11,812,453	2,934,421	1,607,811	4,542,232
2022	8,062,346	2,981,224	11,043,570	2,736,928	1,503,977	4,240,905
2023	8,781,440	3,289,533	12,070,973	3,055,797	1,613,586	4,669,383
2024	\$9,717,626	\$3,585,894	\$13,303,520	\$3,439,860	\$1,729,403	\$5,169,263

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

## Changes in Fiduciary Net Position

### Changes in Fiduciary Net Position - CERS Nonhazardous Pension Plan

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Members' Contributions	\$133,637	\$133,987	\$150,714	\$160,370	\$159,064	\$168,994	\$165,698	\$186,648	\$147,769	\$161,176
Employers' Contributions	297,714	282,767	331,493	355,473	393,302	475,311	472,196	606,772	697,634	764,747
Health Insurance Contributions (HB1)	6,674	7,687	9,158	10,826	11,801	5	(1)	(60)	(30)	(86)
Net Investment Income (Loss)	110,569	(40,799)	825,901	578,377	394,558	56,682	1,784,231	(500,996)	815,417	1,002,646
Bank of America Settlement	10,280	-	-	-	-	-	-	-	-	-
Northern Trust Settlement	-	-	-	361	44	-	-	-	-	-
Pension Spiking	850	1,339	2,061	2,544	151	105	32	35	46	31
<b>Total Additions</b>	<b>559,724</b>	<b>384,981</b>	<b>1,319,327</b>	<b>1,107,951</b>	<b>958,920</b>	<b>701,097</b>	<b>2,422,156</b>	<b>292,399</b>	<b>1,660,836</b>	<b>1,928,514</b>
<b>Deductions</b>										
Benefit Payments	615,335	651,247	687,460	726,568	766,221	795,960	826,749	858,260	894,351	940,514
Refunds	13,524	13,754	14,430	14,608	14,387	14,918	13,862	19,789	23,263	25,267
Administrative Expenses	18,212	19,078	19,614	19,592	21,659	22,304	21,767	22,670	24,128	26,547
Capital Project Expenses	-	307	77	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>647,071</b>	<b>684,385</b>	<b>721,581</b>	<b>760,768</b>	<b>802,267</b>	<b>833,182</b>	<b>862,378</b>	<b>900,719</b>	<b>941,742</b>	<b>992,328</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$(87,347)</b>	<b>\$(299,404)</b>	<b>\$597,746</b>	<b>\$347,183</b>	<b>\$156,653</b>	<b>\$(132,085)</b>	<b>\$1,559,778</b>	<b>\$(608,321)</b>	<b>\$719,094</b>	<b>\$936,186</b>

**CERS DRAFT 12-4-2024****Changes in Fiduciary Net Position - CERS Nonhazardous Insurance Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Employers' Contributions	\$115,836	\$108,269	\$117,310	\$120,798	\$135,570	\$124,740	\$124,697	\$118,550	\$101,121	\$2,765
Net Investment Income (Loss)	36,731	(1,422)	259,586	197,520	133,697	8,656	619,593	(170,699)	306,003	380,512
Retired Re-employed (HB1)	3,608	3,567	3,402	3,821	4,085	4,528	5,206	4,816	4,922	7,378
Member Drug Reimbursement	-	-	1	11	6	4	3	1	-	-
Premiums Received from Retirees	582	629	707	637	616	596	555	534	294	262
Humana Gain Share	-	-	-	-	3,574	-	20,676	8,912	5,951	10,445
Northern Trust Settlement	-	-	-	75	9	-	-	-	-	-
Health Insurance Contributions (HB1)	-	-	-	-	-	12,959	13,614	15,985	17,782	20,736
<b>Total Additions</b>	<b>156,757</b>	<b>111,043</b>	<b>381,006</b>	<b>322,862</b>	<b>277,557</b>	<b>151,483</b>	<b>784,344</b>	<b>(21,901)</b>	<b>436,073</b>	<b>422,098</b>
<b>Deductions</b>										
Health Insurance Premiums	113,734	122,713	124,573	131,631	133,005	135,094	136,263	134,428	123,587	122,209
Administrative Expenses	782	726	789	761	877	903	884	933	937	930
Self-Funded Healthcare Costs	-	-	3,635	4,248	3,979	3,887	3,462	3,288	3,240	2,585
Excise Tax Insurance	6	-	6	6	6	6	-	12	-	13
<b>Total Deductions</b>	<b>114,522</b>	<b>123,439</b>	<b>129,003</b>	<b>136,646</b>	<b>137,867</b>	<b>139,890</b>	<b>140,609</b>	<b>138,661</b>	<b>127,764</b>	<b>125,737</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$42,235</b>	<b>\$(12,396)</b>	<b>\$252,003</b>	<b>\$186,216</b>	<b>\$139,690</b>	<b>\$11,593</b>	<b>\$643,735</b>	<b>\$(160,562)</b>	<b>\$308,309</b>	<b>\$296,361</b>



**CERS DRAFT 12-4-2024****Changes in Fiduciary Net Position - CERS Hazardous Pension Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Members' Contributions	\$46,609	\$51,554	\$60,102	\$61,089	\$58,661	\$63,236	\$62,367	\$69,565	\$56,988	\$61,438
Employers' Contributions	107,515	104,952	114,315	124,953	137,664	168,201	172,089	221,968	308,036	321,225
Health Insurance Contributions (HB1)	1,084	1,418	1,708	2,173	2,458	1	2	(104)	(20)	(59)
Net Investment Income (Loss)	37,104	(9,021)	270,473	192,174	132,970	15,992	600,730	(175,431)	281,965	355,852
Bank of America Settlement	2,865	-	-	-	-	-	-	-	-	-
Northern Trust Settlement	-	-	-	111	14	-	-	-	-	-
Pension Spiking	557	762	1,632	2,707	387	242	116	60	186	68
<b>Total Additions</b>	<b>195,734</b>	<b>149,665</b>	<b>448,230</b>	<b>383,207</b>	<b>332,154</b>	<b>247,672</b>	<b>835,304</b>	<b>116,058</b>	<b>647,155</b>	<b>738,524</b>
<b>Deductions</b>										
Benefit Payments	200,134	213,448	226,985	244,119	259,008	275,802	290,000	305,790	319,594	343,583
Refunds	3,111	2,879	2,315	4,214	2,854	3,814	4,662	5,766	6,568	8,540
Administrative Expenses	1,289	1,337	1,421	1,504	1,726	1,981	1,910	1,995	2,124	2,338
Capital Project Expenses	-	26	7	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>204,534</b>	<b>217,690</b>	<b>230,728</b>	<b>249,837</b>	<b>263,588</b>	<b>281,597</b>	<b>296,572</b>	<b>313,551</b>	<b>328,286</b>	<b>354,461</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$(8,800)</b>	<b>\$(68,025)</b>	<b>\$217,502</b>	<b>\$133,370</b>	<b>\$68,566</b>	<b>\$(33,925)</b>	<b>\$538,732</b>	<b>\$(197,493)</b>	<b>\$318,869</b>	<b>\$384,063</b>

**CERS DRAFT 12-4-2024****Changes in Fiduciary Net Position - CERS Hazardous Insurance Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Employers' Contributions	\$71,008	\$66,757	\$50,743	\$55,027	\$61,106	\$56,739	\$58,451	\$58,374	\$48,792	\$20,556
Net Investment Income (Loss)	20,283	1,102	142,929	109,004	72,580	2,237	322,817	(78,453)	148,739	183,407
Retired Re-employed (HB1)	770	862	794	975	1,166	1,158	1,348	1,530	1,611	2,088
Member Drug Reimbursement	-	-	-	-	-	-	-	-	-	-
Premiums Received from Retirees	10	(106)	(301)	(265)	(53)	(32)	(149)	(271)	(546)	(151)
Humana Gain Share	-	-	-	-	506	-	2,990	1,259	914	1,637
Northern Trust Settlement	-	-	-	40	5	-	-	-	-	-
Health Insurance Contributions (HB1)	-	-	-	-	-	2,760	3,096	3,758	4,278	5,038
<b>Total Additions</b>	<b>92,071</b>	<b>68,615</b>	<b>194,165</b>	<b>164,781</b>	<b>135,310</b>	<b>62,862</b>	<b>388,553</b>	<b>(13,803)</b>	<b>203,788</b>	<b>212,575</b>
<b>Deductions</b>										
Health Insurance Premiums	65,553	68,518	70,407	74,844	78,190	81,849	85,151	89,319	93,485	96,052
Administrative Expenses	339	480	381	376	434	462	466	502	522	522
Self-Funded Healthcare Costs	-	-	160	603	149	228	257	210	172	184
<b>Total Deductions</b>	<b>65,894</b>	<b>68,998</b>	<b>70,948</b>	<b>75,823</b>	<b>78,773</b>	<b>82,539</b>	<b>85,874</b>	<b>90,031</b>	<b>94,179</b>	<b>96,758</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$26,177</b>	<b>\$(383)</b>	<b>\$123,216</b>	<b>\$88,958</b>	<b>\$56,537</b>	<b>\$(19,677)</b>	<b>\$302,679</b>	<b>\$(103,834)</b>	<b>\$109,609</b>	<b>\$115,817</b>

## Schedule of Benefit Expenses

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The following tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order (QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

**CERS DRAFT 12-4-2024****Schedule of Benefit Expenses CERS Nonhazardous**

As of June 30 (in Whole \$)

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
<b>Fiscal Year 2015</b>				
Average Benefit	\$612	\$1,044	\$862	\$616
Number of Accounts	12,749	36,746	4,854	1,161
Total Monthly Benefits	\$7,801,662	\$38,375,001	\$4,186,130	\$715,032
% of Total Monthly Benefits	15.27%	75.13%	8.20%	1.40%
<b>Fiscal Year 2016</b>				
Average Benefit	\$623	\$1,045	\$874	\$626
Number of Accounts	14,014	39,066	5,118	1,268
Total Monthly Benefits	\$8,724,563	\$40,823,334	\$4,472,723	\$793,726
% of Total Monthly Benefits	15.92%	74.48%	8.16%	1.45%
<b>Fiscal Year 2017</b>				
Average Benefit	\$634	\$1,050	\$883	\$616
Number of Accounts	14,792	40,873	5,280	1,318
Total Monthly Benefits	\$9,374,583	\$42,912,604	\$4,661,375	\$811,542
% of Total Monthly Benefits	16.23%	74.29%	8.07%	1.41%
<b>Fiscal Year 2018</b>				
Average Benefit	\$647	\$1,062	\$892	\$645
Number of Accounts	15,713	42,918	5,425	1,359
Total Monthly Benefits	\$10,169,605	\$45,560,863	\$4,838,284	\$875,980
% of Total Monthly Benefits	16.55%	74.15%	7.87%	1.43%
<b>Fiscal Year 2019</b>				
Average Benefit	\$668	\$1,067	\$901	\$657
Number of Accounts	16,710	44,594	5,479	1,363
Total Monthly Benefits	\$11,167,300	\$47,580,052	\$4,934,518	\$895,303
% of Total Monthly Benefits	17.29%	73.68%	7.64%	1.39%
<b>Fiscal Year 2020</b>				
Average Benefit	\$673	\$1,070	\$904	\$667
Number of Accounts	17,378	45,973	5,405	1,370
Total Monthly Benefits	\$11,693,581	\$49,186,433	\$4,888,554	\$913,574
% of Total Monthly Benefits	17.54%	73.76%	7.33%	1.37%
<b>Fiscal Year 2021</b>				
Average Benefit	\$684	\$1,074	\$909	\$688
Number of Accounts	18,581	47,970	5,518	1,432
Total Monthly Benefits	\$12,717,667	\$51,532,707	\$5,016,308	\$984,964
% of Total Monthly Benefits	18.10%	73.35%	7.14%	1.40%
<b>Fiscal Year 2022</b>				
Average Benefit	\$701	\$1,082	\$914	\$723
Number of Accounts	19,172	49,431	5,444	1,470
Total Monthly Benefits	\$13,435,298	\$53,468,946	\$4,977,131	\$1,062,739
% of Total Monthly Benefits	18.42%	73.30%	6.82%	1.46%
<b>Fiscal Year 2023</b>				
Average Benefit	\$717	\$1,095	\$920	\$753
Number of Accounts	19,864	50,658	5,303	1,516
Total Monthly Benefits	\$14,247,555	\$55,453,257	\$4,876,441	\$1,141,532
% of Total Monthly Benefits	18.82%	73.23%	6.44%	1.51%
<b>Fiscal Year 2024</b>				
Average Benefit	\$731	\$1,105	\$920	\$772
Number of Accounts	20,511	51,693	5,255	1,517
Total Monthly Benefits	\$14,984,125	\$57,136,784	\$4,836,003	\$1,170,758
% of Total Monthly Benefits	19.18%	73.13%	6.19%	1.50%

**CERS DRAFT 12-4-2024****Schedule of Benefit Expenses - CERS Hazardous**

As of June 30 (in Whole \$)

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
<b>Fiscal Year 2015</b>				
Average Benefit	\$1,480	\$2,448	\$1,145	\$954
Number of Accounts	2,097	5,139	688	127
Total Monthly Benefits	\$3,103,613	\$12,581,191	\$787,549	\$121,103
% of Total Monthly Benefits	18.70%	75.82%	4.75%	0.73%
<b>Fiscal Year 2016</b>				
Average Benefit	\$1,494	\$2,453	\$1,137	\$975
Number of Accounts	2,269	5,485	742	143
Total Monthly Benefits	\$3,388,890	\$13,452,235	\$843,463	\$139,353
% of Total Monthly Benefits	19.01%	75.47%	4.73%	0.78%
<b>Fiscal Year 2017</b>				
Average Benefit	\$1,509	\$2,473	\$1,138	\$997
Number of Accounts	2,394	5,764	794	149
Total Monthly Benefits	\$3,612,099	\$14,255,349	\$903,238	\$148,515
% of Total Monthly Benefits	19.09%	75.35%	4.77%	0.78%
<b>Fiscal Year 2018</b>				
Average Benefit	\$1,542	\$2,505	\$1,141	\$1,110
Number of Accounts	2,540	6,189	811	158
Total Monthly Benefits	\$3,917,668	\$15,503,185	\$925,221	\$175,316
% of Total Monthly Benefits	19.09%	75.55%	4.51%	0.85%
<b>Fiscal Year 2019</b>				
Average Benefit	\$1,546	\$2,522	\$1,163	\$1,166
Number of Accounts	2,655	6,488	822	168
Total Monthly Benefits	\$4,104,061	\$16,365,945	\$956,017	\$195,932
% of Total Monthly Benefits	18.98%	75.69%	4.42%	0.91%
<b>Fiscal Year 2020</b>				
Average Benefit	\$1,590	\$2,554	\$1,174	\$1,205
Number of Accounts	2,771	6,864	814	169
Total Monthly Benefits	\$4,406,958	\$17,527,561	\$955,266	\$203,646
% of Total Monthly Benefits	19.08%	75.90%	4.14%	0.88%
<b>Fiscal Year 2021</b>				
Average Benefit	\$1,615	\$2,569	\$1,169	\$1,253
Number of Accounts	2,908	7,211	846	173
Total Monthly Benefits	\$4,698,033	\$18,522,964	\$988,745	\$216,818
% of Total Monthly Benefits	19.23%	75.83%	4.05%	0.89%
<b>Fiscal Year 2022</b>				
Average Benefit	\$1,649	\$2,586	\$1,173	\$1,329
Number of Accounts	2,979	7,494	858	182
Total Monthly Benefits	\$4,910,951	\$19,377,298	\$1,006,030	\$241,826
% of Total Monthly Benefits	19.23%	75.88%	3.94%	0.95%
<b>Fiscal Year 2023</b>				
Average Benefit	\$1,690	\$2,616	\$1,196	\$1,437
Number of Accounts	3,061	7,784	853	188
Total Monthly Benefits	\$5,171,930	\$20,360,195	\$1,020,135	\$270,089
% of Total Monthly Benefits	19.28%	75.91%	3.80%	1.01%
<b>Fiscal Year 2024</b>				
Average Benefit	\$1,714	\$2,658	\$1,190	\$1,480
Number of Accounts	3,106	7,982	860	193
Total Monthly Benefits	\$5,324,806	\$21,215,847	\$1,023,549	\$285,623
% of Total Monthly Benefits	19.12%	76.18%	3.68%	1.03%

## Active Refunds

Active Refunds Report For the Period ended June 30, 2024 (in Whole \$)							
System	Tier	Active Termination Refunds		Active Death Refunds		Totals	
		Number of Refunds	Amount of Refunds	Number of Refunds	Amount of Refunds	Number of Refunds	Amount of Refunds
CERS Nonhazardous	1	231	\$3,136,965	142	\$269,186	373	\$3,406,151
	2	172	1,169,049	41	202,989	213	1,372,038
	3	2,177	20,379,391	95	397,925	2,272	20,777,316
	<b>Total</b>	<b>2,580</b>	<b>24,685,405</b>	<b>278</b>	<b>870,100</b>	<b>2,858</b>	<b>25,555,505</b>
CERS Hazardous	1	14	510,180	-	-	14	510,180
	2	7	217,188	1	796	8	217,984
	3	205	7,248,191	3	63,432	208	7,311,623
	<b>Total</b>	<b>226</b>	<b>7,975,559</b>	<b>4</b>	<b>64,228</b>	<b>230</b>	<b>8,039,787</b>
<b>TOTALS</b>		<b>2,806</b>	<b>\$32,660,964</b>	<b>282</b>	<b>\$934,328</b>	<b>\$3,088</b>	<b>\$33,595,292</b>

## Analysis of Initial Retirees

Analysis of Initial Retirees As of June 30 (in Whole \$)		
	CERS Nonhazardous	CERS Hazardous
<b>Fiscal Year 2015</b>		
Number of Accounts	4,084	496
Average Service Credit (months)	188	204
Average Final Compensation	\$34,561	\$59,589
Average Monthly Benefit	\$913	\$2,178
Average System Payment for Health Insurance	\$489	\$1,254
<b>Fiscal Year 2016</b>		
Number of Accounts	4,151	522
Average Service Credit (months)	190	212
Average Final Compensation	\$34,632	\$58,977
Average Monthly Benefit	\$932	\$2,303
Average System Payment for Health Insurance	\$501	\$1,277
<b>Fiscal Year 2017</b>		
Number of Accounts	4,151	544
Average Service Credit (months)	191	203
Average Final Compensation	\$34,779	\$58,384
Average Monthly Benefit	\$940	\$2,236
Average System Payment for Health Insurance	\$510	\$1,247
<b>Fiscal Year 2018</b>		
Number of Accounts	4,570	696
Average Service Credit (months)	195	211
Average Final Compensation	\$37,683	\$65,407
Average Monthly Benefit	\$1,027	\$2,528
Average System Payment for Health Insurance	\$531	\$1,300
<b>Fiscal Year 2019</b>		
Number of Accounts	4,283	541
Average Service Credit (months)	193	198
Average Final Compensation	\$37,412	\$64,646
Average Monthly Benefit	\$997	\$2,366
Average System Payment for Health Insurance	\$513	\$1,231
<b>Fiscal Year 2020</b>		
Number of Accounts	3,584	580
Average Service Credit (months)	189	221
Average Final Compensation	\$36,968	\$67,994
Average Monthly Benefit	\$935	\$2,715
Average System Payment for Health Insurance	\$539	\$1,361
<b>Fiscal Year 2021</b>		
Number of Accounts	3,967	531
Average Service Credit (months)	194	209
Average Final Compensation	\$38,245	\$68,216
Average Monthly Benefit	\$987	\$2,589
Average System Payment for Health Insurance	\$543	\$1,326
<b>Fiscal Year 2022</b>		
Number of Accounts	3,975	496
Average Service Credit (months)	198	205
Average Final Compensation	\$39,244	\$70,218
Average Monthly Benefit	\$1,048	\$2,691
Average System Payment for Health Insurance	\$576	\$1,336

**CERS DRAFT 12-4-2024**

Analysis of Initial Retirees As of June 30 (in Whole \$) Continued		
	CERS Nonhazardous	CERS Hazardous
<b>Fiscal Year 2023</b>		
Number of Accounts	4,003	498
Average Service Credit (months)	194	216
Average Final Compensation	\$41,262	\$77,761
Average Monthly Benefit	\$1,101	\$3,029
Average System Payment for Health Insurance	\$625	\$1,503
<b>Fiscal Year 2024</b>		
Number of Accounts	3,553	387
Average Service Credit (months)	197	213
Average Final Compensation	\$42,017	\$80,498
Average Monthly Benefit	\$1,111	\$3,096
Average System Payment for Health Insurance	\$676	\$1,601

*Note: This table represents all individuals who had an initial retirement date within the fiscal year.*

## Payment Options

Payment Options Selected by Retired Members As of June 30, 2024 (in Whole \$)							
	Basic	Other	Period Certain	Pop Up	Social Security Adjustment	Survivorship	Annuity
<b>CERS Nonhazardous</b>							
Number of Accounts	33,865	27	11,569	12,159	2,294	18,964	98
Monthly Benefits	\$28,663,508	\$40,777	\$10,770,967	\$15,357,360	\$3,225,347	\$20,056,732	\$12,977
<b>CERS Hazardous</b>							
Number of Accounts	2,001	39	1,142	4,738	591	3,630	-
Monthly Benefits	\$4,024,213	\$67,869	\$2,510,085	\$12,326,281	\$1,013,399	\$7,907,979	\$-
<b>CERS Total</b>							
Number of Accounts	35,866	66	12,711	16,897	2,885	22,594	98
Monthly Benefits	\$32,687,721	\$108,646	\$13,281,052	\$27,683,641	\$4,238,746	\$27,964,711	\$12,977

*The information in this table represents accounts administered by KPPA. A single member may have multiple accounts, which contribute to one pension.*



## Employer Contribution Rates

In CERS both the employee and the employer contribute a percentage of creditable compensation to CERS.

The employee contribution rate is set by state statute. Nonhazardous employees contribute 5% while Hazardous duty members contribute 8%. Employees hired on or after September 1, 2008, contribute an additional 1% to health insurance.

CERS employer contribution rates are set by the CERS Board under Kentucky Revised Statutes 78.635 based on an annual actuarial valuation. During the 2018 Regular Session of the Kentucky General Assembly, HB 362 capped CERS employer contribution rate increases to no more than 12% per year over the prior fiscal year for the period of July 1, 2018 to June 30, 2028, or until the actuarial recommended contribution was met. Fiscal year 2022 was the last year for the 12% cap for CERS. The actual pension and insurance employer contribution rates that were paid are shown below.

Employer Contribution Rates (%) As of June 30										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>CERS Nonhazardous</b>										
Actual Rate	17.67%	17.06%	18.68%	19.18%	21.48%	24.06%	24.06%	26.95%	26.79%	23.34%
<b>CERS Hazardous</b>										
Actual Rate	34.31%	32.95%	31.06%	31.55%	35.34%	39.58%	39.58%	44.33%	49.59%	43.69%

## Insurance Contracts

CERS provides medical insurance and other managed care coverage for eligible retired members.

Participation in the insurance program is optional and requires the completion of the proper forms at the time of retirement in order to obtain the insurance coverage. CERS provides access to health insurance coverage through the Kentucky Employees' Health Plan (KEHP) for recipients until they reach age 65 and/or become Medicare eligible. After a retired member becomes eligible for Medicare, coverage is available through a Medicare eligible plan offered by CERS. A retired member's spouse and/or dependents may also be covered on health insurance through CERS.

Insurance Benefits Paid to Retirees & Beneficiaries Participating in a CERS Health Insurance Plan As of June 30, 2024 (in Whole \$)		
	CERS Nonhazardous	CERS Hazardous
Number	41,161	10,135
Average Service Credit (Months)	268	276
Average Monthly System Payment for Health Insurance	\$280	\$1,070
Average Monthly Member Payment for Health Insurance	\$34	\$44
Total Monthly Payment for Health Insurance	\$12,291,675	\$9,207,115

Insurance Contracts by Type As of June 30										
CERS Nonhazardous										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	242	235	222	231	214	210	218	225	234	241
KEHP Couple/Family	473	465	462	510	530	519	508	543	524	506
KEHP Single	8,098	8,164	8,313	8,802	8,912	8,751	8,685	8,692	8,721	8,562
Medicare without Prescription	2,531	2,499	2,462	2,389	2,278	2,183	2,081	1,958	1,921	1,826
Medicare with Prescription	21,520	23,007	24,247	25,476	26,848	27,786	28,472	29,001	29,542	30,026
CERS Hazardous										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	456	378	395	422	430	425	473	468	491	477
KEHP Couple/Family	2,255	2,321	2,387	2,571	2,648	2,816	2,894	2,961	3,047	3,050
KEHP Single	1,500	1,595	1,645	1,712	1,746	1,731	1,768	1,810	1,893	1,899
Medicare without Prescription	107	114	125	119	121	116	120	134	138	144
Medicare with Prescription	2,697	2,969	3,205	3,388	3,658	3,911	4,103	4,284	4,455	4,565
CERS Total										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	698	613	617	653	644	635	691	693	725	718
KEHP Couple/Family	2,728	2,786	2,849	3,081	3,178	3,335	3,402	3,504	3,571	3,556
KEHP Single	9,598	9,759	9,958	10,514	10,658	10,482	10,453	10,502	10,614	10,461
Medicare without Prescription	2,638	2,613	2,587	2,508	2,399	2,299	2,201	2,092	2,059	1,970
Medicare with Prescription	24,217	25,976	27,452	28,864	30,506	31,697	32,575	33,285	33,997	34,591

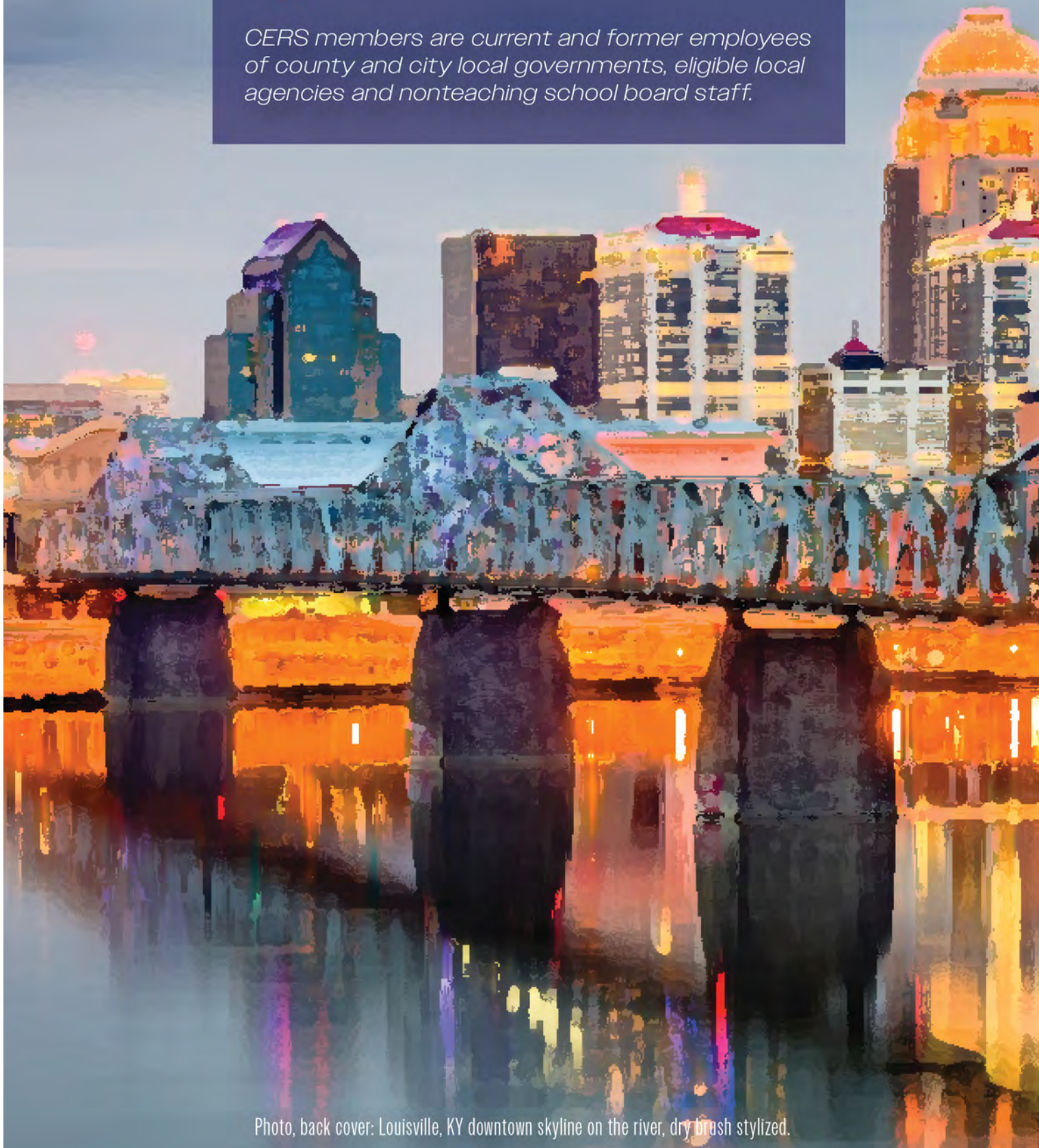
**Acronym Glossary for County Employees Retirement System  
As of December 5, 2024**

<b>Phrase</b>	<b>Acronym</b>
Actuarially Determined Contribution	ADC
Annual Required Contribution	ARC
Annual Comprehensive Financial Report	ACFR
Board of Trustees	Board
Collateralized Mortgage Obligations	CMO
Commonwealth of Kentucky	Commonwealth
Consumer Price Index	CPI
Department of Employee Insurance	DEI
Emerging Market Debt	EMD
Executive Order	EO
Exchange Traded Funds	ETFs
Fiscal Year	FY
Generally Accepted Accounting Principles	GAAP
Governmental Accounting Standards Board	GASB
Gabriel, Roeder, Smith & Co.	GRS
House Bill	HB
Investment Management Agreement	IMA
Investment Policy Statement	IPS
Internal Revenue Service	IRS
Information Technology	IT
Kentucky Administrative Regulations	KAR
Kentucky Employees' Health Plan	KEHP
Kentucky Public Pensions Authority	KPPA
Kohlberg, Kravis, Roberts	KKR
Kentucky Retirement Systems	KRS
Net Asset Value	NAV
Net OPEB Liability	NOL
Net Pension Liability	NPL
Not Rated	NR
Other post-employment benefits	OPEB
Pacific Alternative Asset Management Company	PAAMCO
Perimeter Park West Incorporated	PPW
Qualified Domestic Relations Order	QDRO
Required Supplementary Information	RSI
Senate Bill	SB
Senate Resolution	SR
Strategic Technology Advancements for the Retirement of Tomorrow	START
Short Term Investment Funds	STIFs
Total Pension Liability	TPL
Teachers' Retirement System	TRS
Unfunded Actuarial Accrued Liability	UAAL
Unfunded Accrued Liability	UAL
Unrelated Business Income	UBI



COUNTY EMPLOYEES RETIREMENT SYSTEM  
1260 LOUISVILLE ROAD, FRANKFORT, KY 40601

*CERS members are current and former employees of county and city local governments, eligible local agencies and nonteaching school board staff.*



Photo, back cover: Louisville, KY downtown skyline on the river, dry brush stylized.



**KRS**

Kentucky Retirement Systems (KRS)

Comprising the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS), each a component unit and pension trust fund of the Commonwealth of Kentucky.

**KRS DRAFT 12-4-2024**

# Annual Comprehensive *Financial Report*



For the fiscal year ended  
**June 30**

**2024**

*Prepared by Kentucky Public Pensions  
Authority's Division of Accounting.*

*Available online at [kyret.ky.gov](http://kyret.ky.gov)*

Photo, front cover: Overview of Frankfort, KY, dry brush stylized.

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## KENTUCKY PUBLIC PENSIONS AUTHORITY

**Ryan Barrow, Executive Director**

1260 Louisville Road · Frankfort, Kentucky 40601  
kyret.ky.gov · Phone: 502-696-8800 · Fax: 502-696-8822



### To our Members, Benefit Recipients, Employers and the Board of Trustees

December 5, 2024

On behalf of the Kentucky Public Pensions Authority (KPPA) we are honored to present the Annual Comprehensive Financial Report (ACFR) of the Kentucky Retirement Systems (KRS), a component unit of the Commonwealth of Kentucky, for the Fiscal Year Ended (FYE) June 30, 2024.

Responsibility for the accuracy, completeness, and fairness of the information presented rests ultimately with KPPA management which, along with the Executive Director and staff, assist the KPPA Board in its responsibilities. Because the cost of internal control should not exceed anticipated benefits, KPPA relies on a comprehensive framework of internal controls to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Blue & Co. LLC has issued an unmodified (“clean”) opinion on the KRS financial statements for the FYE June 30, 2024. The Independent Auditors’ report is located in the Financial Section of this report.

The Management’s Discussion and Analysis (MD&A) is also located in the Financial Section of this report. The MD&A provides an analytical overview of the financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

KPPA is the special-purpose government responsible for the day-to-day administration of the County Employees Retirement System (CERS) and the Kentucky Retirement Systems (KRS), comprising the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS).

Prior to 2021 all three systems were governed by a single Board of Trustees. This Board, management, and staff were all referred to as the Kentucky Retirement Systems (KRS). Under this single Board of Trustees, KRS issued one ACFR, including all three systems and their related pension and insurance trust plans.

Effective April 1, 2021, the KRS Board of Trustees was modified in statute to become three boards:

1. A new nine-member Board of Trustees to oversee CERS (the CERS Board).
2. A reconstituted nine-member Board of Trustees, retaining the KRS name, to oversee KERS and SPRS (the KRS Board).
3. A new eight-member Board to oversee the professional employees who provide administrative support, investment management, and conduct other activities on behalf of the CERS and KRS Boards. These employees are part of the Kentucky Public Pensions Authority (KPPA) and the board is referred to as the KPPA Board. The KPPA Board is composed of four CERS trustees and four KRS trustees, as defined by state statute.

For these past three fiscal years, KPPA has continued to issue one ACFR including all three systems and their related pension and OPEB plans.

Beginning with FYE 2024, KPPA is producing separate ACFRs for CERS and KRS. Supported by research and recommendations from KPPA management, this aligns with guidance from the Government Accounting Standards Board (GASB) and authority under state statute. After considering this information, the Boards of Trustees for CERS and KRS have chosen to present separate ACFRs.

KPPA will continue to produce a single Summary Annual Financial Report (SAFR) that provides an overview of information in the CERS and KRS ACFRs, as well as insights into the combined systems.

This approach aims to enhance transparency and reporting by providing information relevant to each system's members, the public and stakeholders. KPPA believes separating the financial reporting for CERS and KRS, while also providing a combined high-level summary best achieves that goal.

### **From the Desk of Ryan Barrow KPPA Executive Director**

#### **Ratings Boost**

In September, Moody's Ratings upgraded Kentucky's credit rating to Aa2 from Aa3. Several factors directly influence credit ratings on state and local municipal debt, with the health of public pension systems being a significant consideration. This has improved in Kentucky in recent years due to the boards adopting actuarial assumptions that more accurately reflect the systems' conditions, the General Assembly's commitment to fully funding pension contributions and allocating additional money to pay down the unfunded liabilities of KERS Nonhazardous and SPRS, and strong investment returns.

All three major ratings agencies covering Kentucky, specifically Moody's, Standard & Poor's, and Fitch Ratings have taken note of the progress. Alongside positive economic developments across the state, a historically high rainy-day fund and improvements in public pension funding prompted all three agencies to recently raise their rating on the state's debt. In May of last year, Fitch Ratings upgraded Kentucky's credit rating to AA from AA-. In June 2023, S&P Global Ratings upgraded Kentucky's credit rating to A+ from A.

Higher credit ratings not only offer an independent assessment of the Commonwealth's financial situation, but they also lower the cost of capital, allowing the state to allocate its resources more effectively.

#### **KPPA Strategic Plan**

The strategic planning process has entered an exciting new phase. Small groups of KPPA employees and management have begun meeting to discuss specific business areas, how those areas are working now, and how they could be enhanced.

In March 2023, KPPA selected Provaliant Retirement LLC to help develop the agency's first strategic plan since 2009. In June 2024, KPPA published a strategic plan summary that identified four key areas of focus: organizational excellence, customer service delivery, infrastructure and key resources, and governance. A summary of the plan is on our website, [kyret.ky.gov](https://kyret.ky.gov).

Building on those four key focus areas, KPPA has established small committees examining specific business practices. To date, KPPA has committees addressing quality assurance, process documentation, member presentations and surveys. Each committee will work for several months to compare current practices with industry standards, make recommendations for enhancements and implement the approved changes.

The strategic planning and enhancement process are expected to be completed by 2028.

#### **An Eye to the Future**

By 2049, our actuarial target is to achieve a fully funded pension system, a crucial milestone that reflects our timeline to meeting financial commitments. While we acknowledge that there is still much work ahead to reach this objective, we are making significant strides on our journey. Through diligent financial management and collaborative efforts among stakeholders, we are steadily improving our funding status. Each step we take brings us closer to ensuring the long-term stability and security of the pension system for current and future recipients.

**From the Desk of John Chilton  
KRS Chief Executive Officer**

The effects of additional funding from the Kentucky General Assembly continued to benefit the KERS Nonhazardous and SPRS pension plans in FY 2024. The past two biennial budgets passed by the Legislature included \$1.14 billion in additional allocations to pay down the unfunded liabilities of those two pensions. In the most recent session, legislators approved House Bill 1, which allocates an additional \$100 million for the KERS Nonhazardous pension plan (\$50 million each in FYs 2025 and 2026) and an additional \$50 million for the SPRS pension plan (\$25 million each in FYs 2025 and 2026).

Another bill, House Bill 6, allocates an additional \$250 million each in FYs 2025 and 2026 to pay down the KERS Nonhazardous pension's unfunded liability.

This is all over and above the money allocated to fund the full actuarially recommended contributions for all KERS and SPRS pension plans.

The attention paid by the General Assembly to the KERS Nonhazardous and SPRS pension plans is greatly appreciated and is paying dividends. The funded ratio for the KERS Nonhazardous pension plan increased to 24.8% at the end of FY 2024, up from 21.7% at the end of FY 2023. The pension plan reached a funded ratio low of 12.8% in FY 2018.

The SPRS pension plan, meanwhile, reached a funded level of 56.8% as of FYE 2024, up from 54.2% at the end of the last fiscal year and up substantially from the low of 26.4% at the end of FY 2017.

All pension plans are on track to be fully funded by 2049.

KPPA began posting quarterly proxy voting reports to its website in FY 2024. These reports show how investment managers voted on corporate governance proposals on behalf of the systems operated by KPPA. These reports can be found in the on the Proxy Voting Reports page in the Investments section of KPPA's website [kyret.ky.gov](http://kyret.ky.gov).

The KRS board continued this past fiscal year to monitor ongoing litigation in anticipation of resolving several longstanding cases.

And the KRS Investment Committee worked with the KPPA Office of Investments to monitor the KERS and SPRS investment portfolios. As always, the goal is to maximize investment returns while minimizing risk. The KRS pension and insurance portfolios returned an average of 10.6%, besting the median return of an index of large public pension funds. The median return for the Wilshire Trust Universe Comparison Service (TUCS) peer group of public pension funds with more than \$1 billion in assets was 10.5% for FY 2024. This is the second consecutive year that KRS pension and insurance portfolio returns have neared or exceeded 10%.

### **Acknowledgments**

The preparation of this report has been a collaborative effort of KPPA Executive Management and the Accounting Division, Communications Division, Office of Investments, and the KRS CEO. The contents have been reviewed by the Internal Audit Division. KPPA is responsible for all the information in the report and confidently presents it as a basis for understanding the stewardship of the system.

Respectfully submitted,



Ryan Barrow  
KPPA Executive Director



Michael B. Lamb, CPA  
KPPA Chief Financial Officer

## GOVERNANCE

As of December 5, 2024

The Kentucky Retirement Systems (KRS) is governed by a nine member board of trustees, consisting of three elected members and six gubernatorial appointees serving four-year terms. Two of the elected members represent the Kentucky Employees Retirement System (KERS) and one elected member represents the State Police Retirement System (SPRS). KRS has four representatives on the KPPA Board in addition to employing a Chief Executive Officer who serves as a legislative and executive advisor and a General Counsel who provides legal services.

### KRS BOARD OF TRUSTEES

Lynn Hampton, Chair  
C. Prewitt Lane, Vice Chair

General Counsel: Dentons Bingham Greenebaum  
Three (3) Elected Trustees  
Six (6) Appointed by Governor

**LEADERSHIP:**  
Every April, the trustees elect a Chair and Vice Chair and affirm who will serve on the KPPA Board in compliance with state law.



KPPA Board Member

**Lynn Hampton**  
Chair  
Term ends June 17, 2026



KPPA Board Member

**C. Prewitt Lane**  
Vice Chair  
Term ends June 17, 2027



**John E. Chilton**  
Chief Executive Officer

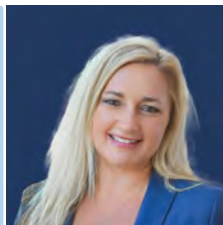
**CHIEF EXECUTIVE OFFICER (CEO):**  
The CEO works with the trustees and KPPA staff to carry out the statutory provisions of the systems.

**ELECTED BY MEMBERSHIP:**  
Every four years, two eligible KERS members and one eligible SPRS member are elected to serve on the Board of Trustees.



KPPA VICE-CHAIR

**Keith Percy**  
Term ends March 31, 2027  
Elected by SPRS



**Dr. Crystal Miller**  
Term ends March 31, 2026  
Elected by KERS



**David Adkins**  
Term ends March 31, 2026  
Elected by KERS

**KPPA BOARD:**  
By law, the KRS Board Chair and Investment Committee Chair serve on this Board. The KRS Chair also appoints one elected trustee and one appointed trustee to the KPPA Board.

**APPOINTED BY GOVERNOR:**  
The Governor appoints six individuals to serve on the Board of Trustees.



**Pamela F. Thompson**  
Term ends June 17, 2027



**Ramsey Bova**  
Term ends June 17, 2026



**Mary G. Eaves**  
Term ends June 21, 2027



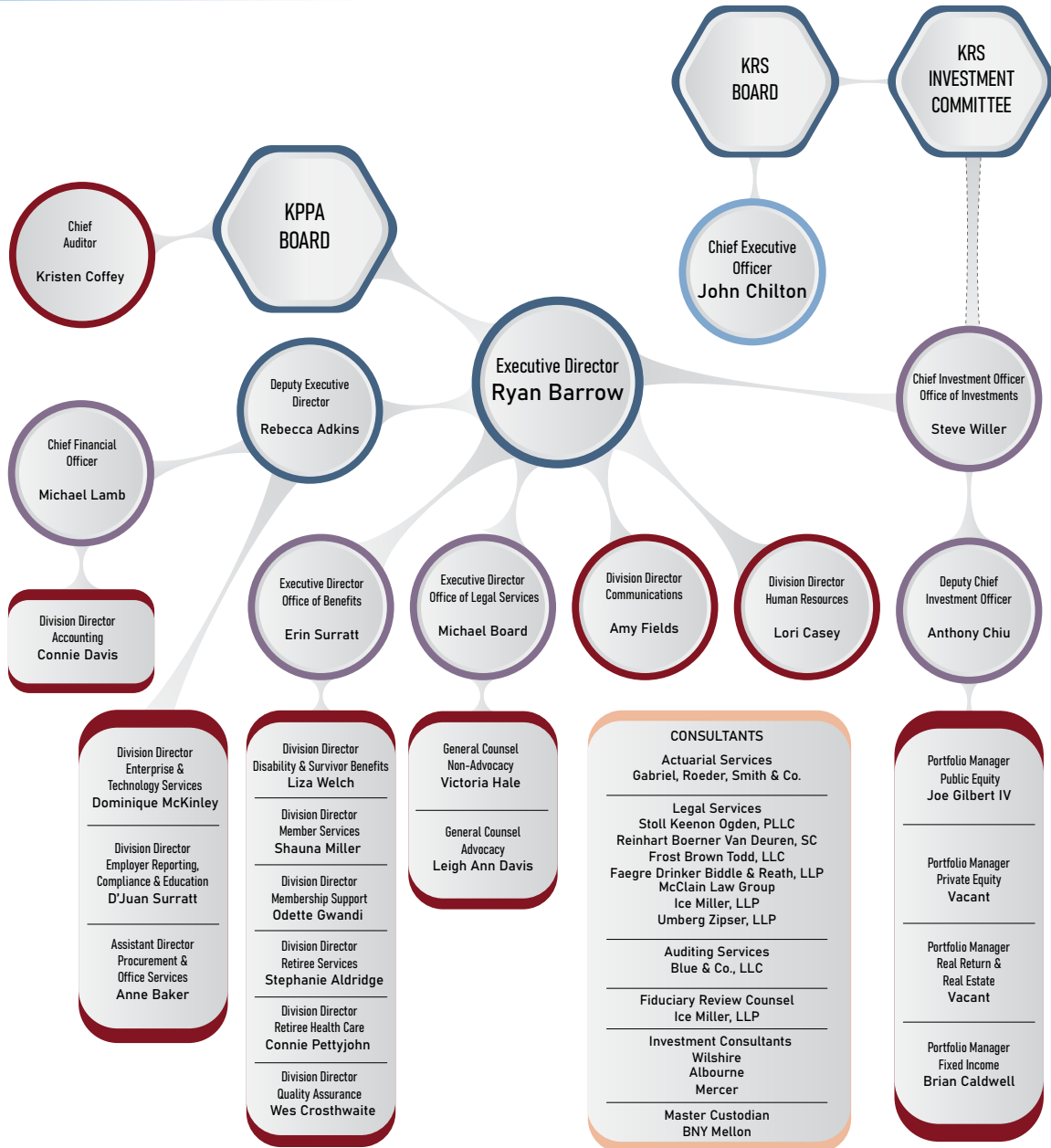
KPPA Board Member

**William Summers V**  
Term ends June 17, 2026

# AGENCY STRUCTURE

As of December 5, 2024

The Kentucky Public Pensions Authority (KPPA) oversees the operations of the Kentucky Employees Retirement System (KERS) and State Police Retirement System (SPRS) by providing administrative support, investment management, and conducting daily activities on behalf of the Kentucky Retirement Systems (KRS) Board of Trustees and KPPA Board. KPPA is led by an Executive Director who is appointed by the KPPA Board to work with the KRS Chief Executive Officer to carry out the statutory provisions of the systems.

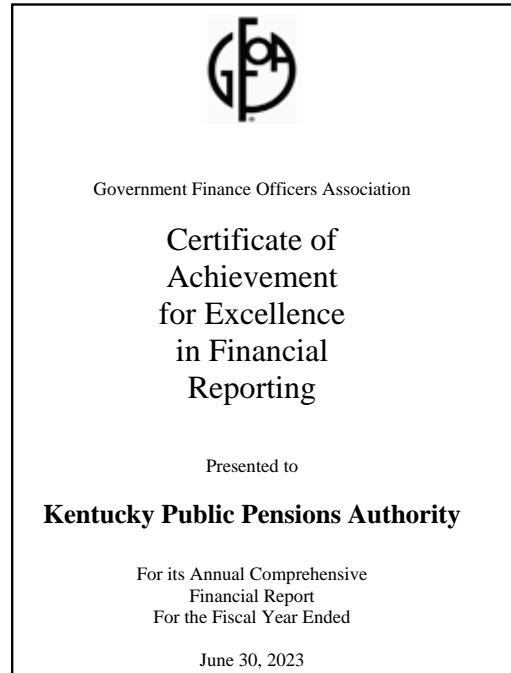


Refer to the Investments Section for additional information regarding Investment Advisors (pages 113-114) and Schedules of Fees and Expenses (pages 115-117).

**Professional Awards**

**CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING**

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Kentucky Public Pensions Authority\* for its Annual Comprehensive Financial Report for the Fiscal Year ended June 30, 2023. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports and is valid for a period of one year. This is the 25<sup>th</sup> award earned by Kentucky Public Pensions Authority (formerly the Kentucky Retirement Systems). In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized document. The report must satisfy both generally accepted accounting principles and applicable legal requirements. We believe our 2024 report will continue to meet the Certificate of Achievement Program's requirements, and we will be submitting it to the GFOA for their consideration.



**PUBLIC PENSIONS STANDARDS AWARD FOR FUNDING AND ADMINISTRATION**

The Public Pension Coordinating Council awarded the Public Pensions Standards Award for Funding and Administration to the Kentucky Retirement Systems (KRS) for 2024. This is the second award earned by KRS.

The Public Pension Coordinating Council established the Public Pension Standards to reflect expectations for public retirement system management, administration, and funding. The Standards serve as a benchmark to measure public defined benefit plans. The Award for Funding and Administration is a distinguished national award recognizing pension programs meeting professional standards for plan design and administration as set forth in the Public Pension Standards. This award is valid for a period of one year. We believe KRS will continue to meet these standards, and we will be applying for the award next year.



*\*Beginning with Fiscal Year 2024, two separate financial statement audits will be conducted for the County Employees Retirement System and Kentucky Retirement Systems. As a result, KPPA will issue two separate Annual Comprehensive Financial Reports on behalf of the respective Boards of Trustees. The GFOA Award is included in both ACFRs this Fiscal Year, however, the award will be based on the individual reports prospectively.*

**Pension Benefits by County**

2024 Total Fiscal Year KRS Pension Benefits Paid by County (in whole \$)								
County	Payees*	Total	County	Payees*	Total	County	Payees*	Total
Adair	258	\$5,233,757	Grant	237	\$5,065,058	McLean	113	\$2,423,622
Allen	168	2,896,237	Graves	370	7,071,404	Meade	139	2,124,446
Anderson	1,106	30,163,141	Grayson	260	4,750,221	Menifee	125	2,366,828
Ballard	70	1,349,366	Green	133	2,797,976	Mercer	474	10,670,417
Barren	454	8,064,330	Greenup	219	4,026,940	Metcalfe	122	1,820,442
Bath	188	4,033,031	Hancock	52	888,974	Monroe	104	1,938,858
Bell	289	5,822,644	Hardin	864	16,284,864	Montgomery	289	6,023,948
Boone	509	10,237,281	Harlan	286	5,848,488	Morgan	470	9,206,856
Bourbon	195	3,907,805	Harrison	179	3,496,959	Muhlenberg	346	6,011,078
Boyd	273	5,970,819	Hart	140	2,841,806	Nelson	397	8,266,415
Boyle	476	9,224,119	Henderson	304	5,455,041	Nicholas	89	1,777,954
Bracken	93	1,599,099	Henry	608	15,351,750	Ohio	225	3,698,726
Breathitt	286	5,594,827	Hickman	49	883,194	Oldham	636	13,332,079
Breckinridge	189	3,288,729	Hopkins	564	10,131,863	Owen	361	9,201,676
Bullitt	380	7,383,568	Jackson	161	2,922,666	Owsley	109	1,835,968
Butler	132	2,211,789	Jefferson	4,919	100,199,030	Pendleton	127	2,450,351
Caldwell	301	5,743,674	Jessamine	474	10,110,208	Perry	355	7,159,855
Calloway	639	9,171,638	Johnson	314	5,866,476	Pike	457	9,926,423
Campbell	556	10,084,760	Kenton	628	13,287,974	Powell	160	2,649,590
Carlisle	51	979,069	Knott	240	4,993,697	Pulaski	1,360	26,350,846
Carroll	150	2,792,547	Knox	245	5,411,973	Robertson	43	656,941
Carter	386	7,000,689	LaRue	170	3,463,969	Rockcastle	193	3,936,362
Casey	150	2,915,479	Laurel	568	13,513,575	Rowan	594	11,069,094
Christian	757	14,295,707	Lawrence	125	2,377,169	Russell	286	5,148,724
Clark	363	6,779,367	Lee	112	2,091,649	Scott	651	16,602,997
Clay	265	5,606,818	Leslie	126	2,705,974	Shelby	1,109	29,746,376
Clinton	132	2,540,152	Letcher	232	4,623,963	Simpson	89	1,453,087
Crittenden	128	2,387,901	Lewis	111	1,884,334	Spencer	218	4,685,820
Cumberland	95	1,620,068	Lincoln	285	5,114,464	Taylor	244	4,757,587
Daviess	800	14,284,924	Livingston	118	2,551,088	Todd	102	1,740,586
Edmonson	86	1,210,507	Logan	212	4,104,082	Trigg	317	5,569,098
Elliott	119	2,065,762	Lyon	240	5,469,850	Trimble	161	3,049,471
Estill	209	3,688,367	Madison	1,477	25,755,941	Union	94	1,413,899
Fayette	2,970	74,815,212	Magoffin	162	3,373,750	Warren	1,518	26,744,981
Fleming	228	5,231,966	Marion	203	3,632,637	Washington	152	3,626,225
Floyd	462	9,024,187	Marshall	403	6,207,293	Wayne	276	5,109,931
Franklin	5,554	174,152,108	Martin	72	1,182,866	Webster	122	2,072,266
Fulton	61	1,114,939	Mason	143	3,016,781	Whitley	532	10,960,475
Gallatin	49	968,794	McCracken	525	11,007,269	Wolfe	189	4,246,861
Garrard	215	\$3,778,209	McCreary	173	\$2,402,326	Woodford	701	\$20,602,421

Pension Benefits paid to retirees and beneficiaries of Kentucky Retirement Systems have a wide ranging impact on the state's economic health. In fiscal year 2024, KRS paid over \$1.17 billion to its recipients. The majority, 92.97%, of these payments are issued to Kentucky residents. Each county in the Commonwealth received at least \$656,000 from KRS, providing a stabilizing element for all local economies.

Total Retirement Payments For the Period ended June 30, 2024 (in Whole \$)			
	Payees	%	Payments
Kentucky	50,544	92.97%	1,093,828,507
Out of State	4,863	7.03%	82,646,494
<b>Grand Total</b>	<b>55,407</b>	<b>100.00%</b>	<b>\$1,176,475,001</b>

\*This table represents all payees receiving a monthly payment, retirement eligible refund, or actuarial refund during the fiscal year.

**Fiduciary Net Position Highlights**

<b>KRS Fiduciary Net Position* (\$ in Thousands)</b>										
	<b>KERS Nonhazardous</b>			<b>KERS Hazardous</b>			<b>SPRS</b>			<b>KRS</b>
<b>Year</b>	<b>Pension</b>	<b>Insurance</b>	<b>Total</b>	<b>Pension</b>	<b>Insurance</b>	<b>Total</b>	<b>Pension</b>	<b>Insurance</b>	<b>Total</b>	<b>Total</b>
<b>2015</b>	\$2,327,782	\$665,639	<b>\$2,993,421</b>	\$552,468	\$439,113	<b>\$991,581</b>	\$247,229	\$164,714	<b>\$411,943</b>	<b>\$4,396,945</b>
<b>2016</b>	1,980,292	668,318	<b>2,648,610</b>	527,880	437,397	<b>965,277</b>	218,013	160,949	<b>378,962</b>	<b>3,992,849</b>
<b>2017</b>	2,092,781	781,406	<b>2,874,187</b>	605,921	484,442	<b>1,090,363</b>	256,383	178,191	<b>434,574</b>	<b>4,399,124</b>
<b>2018</b>	2,048,890	846,762	<b>2,895,652</b>	651,173	513,384	<b>1,164,557</b>	268,425	189,994	<b>458,419</b>	<b>4,518,628</b>
<b>2019</b>	2,286,625	942,136	<b>3,228,761</b>	687,877	527,108	<b>1,214,985</b>	287,242	200,128	<b>487,370</b>	<b>4,931,116</b>
<b>2020</b>	2,362,231	1,006,498	<b>3,368,729</b>	697,366	514,740	<b>1,212,106</b>	295,044	200,245	<b>495,289</b>	<b>5,076,124</b>
<b>2021</b>	3,085,014	1,353,123	<b>4,438,137</b>	874,928	624,889	<b>1,499,817</b>	357,660	246,004	<b>603,664</b>	<b>6,541,618</b>
<b>2022</b>	3,076,743	1,301,522	<b>4,378,265</b>	819,237	579,902	<b>1,399,139</b>	552,926	230,015	<b>782,941</b>	<b>6,560,345</b>
<b>2023</b>	3,607,206	1,465,489	<b>5,072,695</b>	902,567	616,322	<b>1,518,889</b>	592,826	246,797	<b>839,623</b>	<b>7,431,207</b>
<b>2024</b>	\$4,297,571	\$1,692,094	<b>\$5,989,665</b>	\$1,029,921	\$667,917	<b>\$1,697,838</b>	\$653,216	\$272,091	<b>\$925,307</b>	<b>\$8,612,810</b>

\*The Fiduciary Net Positions are the resources accumulated and held in trust to pay benefits.



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**REPORT OF INDEPENDENT AUDITORS**

To the Members  
Kentucky Retirement Systems  
Frankfort, Kentucky

Report on the Audit of Financial Statements*Opinion*

We have audited the accompanying financial statements of Kentucky Retirement Systems (KRS), a component unit of the Commonwealth of Kentucky, as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise KRS's financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of KRS, as of June 30, 2024, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

*Basis for Opinion*

We conducted our audit in accordance with 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. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of KRS and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

*Responsibilities of Management for the Financial Statements*

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about KRS's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

*Auditor's Responsibilities for the Audit of the Financial Statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that

**REPORT OF INDEPENDENT AUDITORS (Continued)**

includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 KRS's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about KRS's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages XX through XX, and the defined benefit pension plan and other post-employment benefit plan supplemental schedules on pages XX through XX, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, 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 financial statements, and other knowledge we obtained during our audit of the basic

**REPORT OF INDEPENDENT AUDITORS (Continued)**

financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming opinion on the financial statements that collectively comprise KRS's basic financial statements. The accompanying schedules of administrative expense, direct investment expenses, and professional consultant fees are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules of administrative expense, direct investment expenses, and professional consultant fees are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated DATE, on our consideration of KRS's 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 solely 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 effectiveness of KRS's 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 KRS's internal control over financial reporting and compliance.

*Blue & Co., LLC*

Lexington, Kentucky  
DATE

# KRS DRAFT 12-4-2024

## Management's Discussion & Analysis (Unaudited, \$ in Millions)

### INTRODUCTION

Management's Discussion and Analysis (MD&A) provides insight into the financial performance of KRS for the fiscal year ended June 30, 2024. It is meant to be read in the context of the accompanying Letter of Transmittal in the Introduction, the Basic Financial Statements and the Notes to those statements, the Required Supplementary Information (RSI), and additional material following this section. Together, this information provides a comprehensive picture of KRS' financial position.

KRS comprises the Kentucky Employee Retirement System (KERS), and the State Police Retirement System (SPRS). KERS includes hazardous and nonhazardous defined benefit pension and OPEB plans for Kentucky state employees. SPRS is a single employer system providing benefits to Kentucky State Police troopers. Governance of both KERS and SPRS is vested with the nine-member KRS Board of Trustees (the KRS Board). Daily system activities, including investment management, benefits counseling, legal services, accounting, and payroll functions, are performed by a staff of professional employees of the Kentucky Public Pension Authority (KPPA), which is the special-purpose government responsible for the administration of KRS.

### FINANCIAL HIGHLIGHTS AND ANALYSIS

The following are the Condensed Comparative Statements of Fiduciary Net Position and Condensed Comparative Statements of Changes in Fiduciary Net Position of KRS for the fiscal years ended June 30, 2024, and 2023:

Condensed Summary of Fiduciary Net Position				
As of June 30				
	KRS TOTAL	KRS TOTAL		
	2024	2023	CHANGE	% CHANGE
<b>ASSETS</b>				
Cash, Short-term Investments, and Receivables	\$615	\$1,256	\$(641)	(51.04%)
Investments, at fair value	8,322	6,413	1,909	29.77%
<b>TOTAL ASSETS</b>	<b>8,937</b>	<b>7,669</b>	<b>1,268</b>	<b>16.53%</b>
<b>TOTAL LIABILITIES</b>				
	324	238	86	36.13%
<b>FIDUCIARY NET POSITION</b>	<b>\$8,613</b>	<b>\$7,431</b>	<b>\$1,182</b>	<b>15.91%</b>

# Management's Discussion & Analysis (Unaudited, \$ in Millions)

Condensed Summary of Changes in Fiduciary Net Position As of June 30				
	KRS TOTAL 2024	KRS TOTAL 2023	CHANGE	% CHANGE
<b>ADDITIONS</b>				
Member Contributions	\$137	\$117	\$20	17.09%
Employer Contributions	369	320	49	15.31%
Actuarially Accrued Liability Contributions (AALC)	987	986	1	0.10%
General Fund Appropriations	240	240	-	0.00%
Total Contributions	1,733	1,663	70	4.21%
Net Investment Income (Loss)	776	541	235	43.44%
Other Additions	10	5	5	100.00%
<b>TOTAL ADDITIONS</b>	<b>2,519</b>	<b>2,209</b>	<b>310</b>	<b>14.03%</b>
<b>DEDUCTIONS</b>				
Benefits and Refunds	1,192	1,182	10	0.85%
Other Deductions	145	156	(11)	(7.05)%
<b>TOTAL DEDUCTIONS</b>	<b>1,337</b>	<b>1,338</b>	<b>(1)</b>	<b>(0.07)%</b>
<b>NET INCREASE (DECREASE)</b>	<b>1,182</b>	<b>871</b>	<b>311</b>	<b>35.71%</b>
<b>FIDUCIARY NET POSITION</b>				
Beginning of the Period	7,431	6,560	871	13.28%
End of Period	\$8,613	\$7,431	\$1,182	15.91%

# KRS DRAFT 12-4-2024

## Management's Discussion & Analysis (Unaudited, \$ in Millions)

### Fiduciary Net Position

The Fiduciary Net Position of KRS was \$7,431 at the beginning of the fiscal year and increased by 15.91% to \$8,613 as of June 30, 2024. The \$1,182 increase is primarily attributable to the appreciation of the fair value of investments, and continued AALC payments and additional funding from the Kentucky General Assembly.

### Contributions

Total contributions reported for fiscal year 2024 were \$1,733 compared to \$1,663 in fiscal year 2023, an increase of 4.21% or \$70. This increase was driven by an increase in covered payroll for all plans, as the employer contribution rates remained constant from year to year.

### Investments

The KRS pension and insurance portfolios investment returns averaged 10.6% for the fiscal year ended June 30, 2024, compared to 8.8% for the fiscal year ended June 30, 2023. This was due to the Core Fixed Income, Specialty Credit, and Real Return portfolios significantly outpacing their benchmarks, and sizeable returns in the Public Equity portfolio. See investment results beginning on page [87](#) of the investment section.

The fair value of investments, as of June 30, 2024, were \$8,322, an increase of \$1,909 from the prior year, and net investment income was \$776 for the current fiscal year, compared to \$541 for the prior fiscal year.

Investment returns are reported net of fees and investment expenses, including carried interest. Investment fees and expenses totaled \$65 for fiscal year 2024 compared to \$48 in the prior fiscal year.

	1-year return		Fair Value of Investments			Investment fees & expenses			Net Investment Income		
	2024	2023	2024	2023	change	2024	2023	change	2024	2023	change
<b>PENSION</b>											
KERS Nonhazardous	9.5%	7.0%	\$4,100	\$2,964	\$1,136	\$29	\$20	\$9	\$356	\$220	\$136
KERS Hazardous	11.1%	9.5%	1,008	830	178	9	7	2	102	77	25
SPRS	9.6%	7.6%	635	469	166	4	3	1	57	41	16
<b>INSURANCE</b>											
KERS Nonhazardous	11.1%	9.9%	1,649	1,311	338	13	11	3	167	128	39
KERS Hazardous	11.2%	9.3%	662	599	63	7	5	2	67	53	14
SPRS	11.0%	9.5%	268	240	28	3	2	1	27	21	6
<b>AVERAGE / TOTAL</b>	<b>10.6%</b>	<b>8.8%</b>	<b>\$8,322</b>	<b>\$6,413</b>	<b>\$1,909</b>	<b>\$65</b>	<b>\$48</b>	<b>\$18</b>	<b>\$776</b>	<b>\$540</b>	<b>\$236</b>

# KRS DRAFT 12-4-2024

## Management's Discussion & Analysis (Unaudited, \$ in Millions)

Asset allocation is the primary driver of long-term investment performance and is designed to achieve an optimal long-term asset mix. The investment policy statement (IPS) of the KRS board has established the following asset allocation guidelines as of June 30, 2024. See also the investment overview beginning on page [83](#) of the investment section.

Asset Class	KERS Nonhazardous Pension & SPRS Pension Plans			KERS Hazardous Pension & all KRS Insurance Plans		
	Target	Minimum	Maximum	Target	Minimum	Maximum
Public Equity	30%	20%	40%	40%	2%	50%
Private Equity	6%	3%	9%	8%	4%	12%
Core Fixed Income	27%	22%	35%	10%	8%	15%
Specialty Credit	20%	15%	25%	25%	20%	30%
Cash	2%	0%	5%	2%	0%	5%
Real Estate	5%	3%	7%	7%	4%	10%
Real Return	10%	7%	13%	8%	5%	11%
	100%			100%		

### Deductions

Benefits and refunds paid for fiscal year 2024 totaled \$1,192 compared to \$1,182 in fiscal year 2023, a 0.85% increase, due to the slight increase in retired membership of the systems.

### ACTUARIAL HIGHLIGHTS

The actuarial accrued liability (AAL) is the measure of the cost of benefits that have been earned to date, but not yet paid, and is calculated using the entry age normal cost method (EANC) as required by state statute. The difference in value between the AAL and the actuarial value of assets is defined as the unfunded actuarial accrued liability (UAAL).

The UAAL for KRS, from the June 30, 2024, actuarial valuation, is \$13,564 for fiscal year ended June 30, 2024, compared to \$13,813 for fiscal year ended June 30, 2023, a decrease of \$249. The UAAL for the Pension Plans decreased by \$261 due to the increase in the fair value of the assets related to favorable market conditions, an increase in covered payroll, and the \$240 in general fund appropriation during fiscal year 2024. The UAAL for the Insurance Plans increased by \$12, due to static contribution rates for fiscal year 2024.



# Management's Discussion & Analysis (Unaudited, \$ in Millions)

Schedule of Unfunded Actuarial Accrued Liability (UAAL)												
As of June 30												
	KERS Nonhazardous				KERS Hazardous				SPRS			
	Pension		Insurance		Pension		Insurance		Pension		Insurance	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
<b>Actuarial Accrued Liability (AAL)</b>	\$16,648	\$16,304	\$2,095	\$1,877	\$1,443	\$1,363	\$380	\$364	\$1,112	\$1,092	\$251	\$244
<b>Actuarial Value of Assets</b>	4,122	3,552	1,712	1,533	985	891	652	620	631	590	263	245
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	\$12,526	\$12,752	\$383	\$344	\$458	\$472	(\$272)	(\$256)	\$481	\$502	(\$12)	(\$1)
<b>Funded Ratio</b>	24.76%	21.79%	81.72%	81.67%	68.26%	65.37%	171.58%	170.33%	56.74%	54.03%	104.78%	100.41%

Please refer to Note I and the RSI of the Financial Section, as well as the Actuarial Section for more analysis of the funding status, asset values, actuarial assumptions, and actuarially determined employer contributions.

### INFORMATION REQUESTS

This financial report is designed to provide a general overview of KRS' financial position. Questions concerning any of the information provided in this report or requests for additional information should be directed to:

ATTN: Director of Accounting

Kentucky Public Pensions Authority

1260 Louisville Road

Frankfort, KY 40601

## Basic Financial Statements

### Combining Statement of Fiduciary Net Position

As of June 30, 2024 (\$ in Thousands)

	Pension			Insurance			KRS Total 2024
	KERS Nonhazardous	KERS Hazardous	SPRS	KERS Nonhazardous	KERS Hazardous	SPRS	
<b>ASSETS</b>							
<b>CASH AND SHORT-TERM INVESTMENTS</b>							
Cash Deposits	\$268	\$27	\$29	\$100	\$23	\$18	\$465
Short-term Investments	254,633	49,952	38,006	68,261	20,702	9,876	441,430
<b>Total Cash and Short-term Investments</b>	<b>254,901</b>	<b>49,979</b>	<b>38,035</b>	<b>68,361</b>	<b>20,725</b>	<b>9,894</b>	<b>441,895</b>
<b>RECEIVABLES</b>							
Accounts Receivable	93,357	4,965	2,498	14,426	462	918	116,626
Accounts Receivable - Investments	30,542	5,671	4,925	10,444	3,303	1,492	56,377
<b>Total Receivables</b>	<b>123,899</b>	<b>10,636</b>	<b>7,423</b>	<b>24,870</b>	<b>3,765</b>	<b>2,410</b>	<b>173,003</b>
<b>INVESTMENTS, AT FAIR VALUE</b>							
Core Fixed Income	1,096,029	115,245	166,303	189,154	75,625	29,762	1,672,118
Public Equities	1,347,282	431,605	205,635	708,372	284,692	114,446	3,092,032
Private Equities	194,862	66,044	31,411	111,418	48,804	21,728	474,267
Specialty Credit	785,092	229,560	123,774	375,074	151,347	61,598	1,726,445
Derivatives	(73)	9	(9)	10	(3)	3	(63)
Real Return	349,425	79,738	56,205	135,580	45,489	18,475	684,912
Real Estate	217,911	58,902	35,155	95,993	42,344	16,169	466,474
Securities Lending Collateral	109,246	26,629	16,923	33,811	13,516	5,449	205,574
<b>Total Investments, at Fair Value</b>	<b>4,099,774</b>	<b>1,007,732</b>	<b>635,397</b>	<b>1,649,412</b>	<b>661,814</b>	<b>267,630</b>	<b>8,321,759</b>
<b>Total Assets</b>	<b>4,478,574</b>	<b>1,068,347</b>	<b>680,855</b>	<b>1,742,643</b>	<b>686,304</b>	<b>279,934</b>	<b>8,936,657</b>
<b>LIABILITIES</b>							
Accounts Payable	4,455	988	113	132	2	1	5,691
Accounts Payable - Investments	67,302	10,809	10,603	16,606	4,869	2,393	112,582
Securities Lending Collateral	109,246	26,629	16,923	33,811	13,516	5,449	205,574
<b>Total Liabilities</b>	<b>181,003</b>	<b>38,426</b>	<b>27,639</b>	<b>50,549</b>	<b>18,387</b>	<b>7,843</b>	<b>323,847</b>
<b>Total Fiduciary Net Position Restricted for Benefits</b>	<b>\$4,297,571</b>	<b>\$1,029,921</b>	<b>\$653,216</b>	<b>\$1,692,094</b>	<b>\$667,917</b>	<b>\$272,091</b>	<b>\$8,612,810</b>

See accompanying notes which are an integral part of these combining financial statements.

Note: The displayed fair values include investable assets held by each Plan and its associated contributions, payables, equipment and intangible assets; unlike those found in the Investment Section, which include only those investable assets held by each Plan.

## Combining Statement of Changes In Fiduciary Net Position

For the fiscal year ended June 30, 2024 (\$ in Thousands)

	Pension			Insurance			KRS Total 2024
	KERS Nonhazardous	KERS Hazardous	SPRS	KERS Nonhazardous	KERS Hazardous	SPRS	
<b>ADDITIONS</b>							
Member Contributions	\$96,597	\$21,560	\$5,691	\$10,682	\$2,070	\$395	\$136,995
Employer Contributions	156,032	89,899	61,998	48,846	1,910	10,163	368,848
Actuarially Accrued Liability Contributions	899,663	-	-	87,782	-	-	987,445
General Fund Appropriations	240,000	-	-	-	-	-	240,000
Other	-	-	-	8,444	651	390	9,485
<b>Total Contributions</b>	<b>1,392,292</b>	<b>111,459</b>	<b>67,689</b>	<b>155,754</b>	<b>4,631</b>	<b>10,948</b>	<b>1,742,773</b>
<b>INVESTMENT INCOME</b>							
Net Appreciation (Depreciation) in FV of Investments	243,618	76,073	38,386	123,287	51,737	20,310	553,411
Interest/Dividends	137,373	33,477	21,885	55,349	21,973	8,932	278,989
Securities Lending Income	4,235	1,169	744	1,583	551	242	8,524
Less: Investment Expense	19,394	5,797	2,666	9,243	4,573	1,818	43,491
Less: Performance Fees	6,006	1,724	620	2,860	1,766	616	13,592
Less: Securities Lending Fees, Expenses, and Rebates	3,808	1,059	671	1,402	487	214	7,641
<b>Net Investment Income (loss)</b>	<b>356,018</b>	<b>102,139</b>	<b>57,058</b>	<b>166,714</b>	<b>67,435</b>	<b>26,836</b>	<b>776,200</b>
<b>Total Additions</b>	<b>1,748,310</b>	<b>213,598</b>	<b>124,747</b>	<b>322,468</b>	<b>72,066</b>	<b>37,784</b>	<b>2,518,973</b>
<b>DEDUCTIONS</b>							
Benefit Payments	1,032,124	80,528	63,823	-	-	-	1,176,475
Refunds	11,693	4,133	220	-	-	-	16,046
Administrative Expenses	14,128	1,583	314	734	117	71	16,947
Healthcare Expenses	-	-	-	95,129	20,354	12,419	127,902
<b>Total Deductions</b>	<b>1,057,945</b>	<b>86,244</b>	<b>64,357</b>	<b>95,863</b>	<b>20,471</b>	<b>12,490</b>	<b>1,337,370</b>
Net Increase (Decrease) in Fiduciary Net Position Restricted for Benefits	690,365	127,354	60,390	226,605	51,595	25,294	1,181,603
<b>Total Fiduciary Net Position Restricted for Benefits</b>							
<b>Beginning of Period</b>	<b>3,607,206</b>	<b>902,567</b>	<b>592,826</b>	<b>1,465,489</b>	<b>616,322</b>	<b>246,797</b>	<b>7,431,207</b>
<b>End of Period</b>	<b>\$4,297,571</b>	<b>\$1,029,921</b>	<b>\$653,216</b>	<b>\$1,692,094</b>	<b>\$667,917</b>	<b>\$272,091</b>	<b>\$8,612,810</b>
<i>See accompanying notes, which are an integral part of these combining financial statements.</i>							

## **NOTE A. Summary of Significant Accounting Policies**

### **Basis of Accounting**

KRS's combining financial statements are prepared using the accrual basis of accounting. Member contributions are recognized in the period in which contributions are due. Employer contributions 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 the terms of the plan. Premium payments are recognized when due and payable in accordance with the insurance terms of the plan. Administrative and investment expenses are recognized when incurred. The net position represents the assets of the system available to pay pension benefits for retirees, active and inactive members, and health care premiums for current and future retirees.

### **Method Used to Value Investments**

Investments are reported at fair value. Fair value is the price that would be received upon selling an asset or the amount 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 Investments Note D for further discussion of fair value measurements. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the dividend date. Gain (loss) on investments includes gains and losses on investments bought and sold as well as held during the fiscal year. Investment returns are recorded in all plans net of investment fees.

### **Investment Unitization**

Within the plan accounting structure there are two primary types of accounts: Plan Accounts and Pool Accounts. Plan Accounts are the owners of the investment pool. An account is established for each plan and these accounts hold Units of Participation that represent the plan's invested value of the investment pool. Pool Accounts are accounts that hold the assets of the investment pool where all investment related activity and earnings occur. The pooled accounts are the investment strategies of the pool. Units of Participation are bought and sold as each plan contributes or withdraws cash or assets from the investment pool. The investment pool earnings are then allocated to plans utilizing a cost distribution method that allows for fluctuating prices experienced in capital markets. This involves earnings allocated to the plan accounts with an increase or decrease in cost on the Unit of Participation Holdings of the plan accounts. Correspondingly, the price of the Unit of Participation Holdings is updated to reflect change in fair value in the investment pool. Earnings are allocated based on the daily weighted average of Master Trust Units held by each plan account during each monthly earnings period. This method is commonly used when plans make multiple contributions or withdrawals from the investment pool throughout the month as it eliminates allocation distortion due to large end of month cash flows.

### **Estimates**

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

### **Capital/Intangible Assets**

Equipment and computer software costing more than \$3,000 are valued at historical cost, capitalized when put into service, and depreciated or amortized using the straight-line method over the estimated useful life of the assets, ranging from three to ten years. Improvements, which increase the useful life of the asset, are capitalized. Maintenance and repairs are charged as an expense when incurred. As of June 30, 2023, all capital/intangible assets were fully depreciated and or amortized. No additional capital/intangible assets have been capitalized since that date.

## Accounts Receivable

Accounts Receivable consist of amounts due from employers. Management considers accounts 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.

The Investment Accounts Receivable and Investment Accounts Payable consist of investment management earnings and fee accruals, as well as all buys and sells of securities which have not closed as of the reporting date.

## Benefits

Benefits are recognized when due and payable in accordance with the terms of the plan.

## Expense Allocation

Administrative expenses are allocated to the system based on a hybrid allocation developed by management in conjunction with the KRS Board. The hybrid allocation is based on a combination of plan membership and direct plan expenses. All investment related 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 on July 1, 1956, pursuant to Kentucky Revised Statutes 61.515. SPRS was created by the Kentucky General Assembly on July 1, 1958, pursuant to Kentucky Revised Statutes 16.510. Six of the nine trustees are appointed by the Governor. The administrative budget of KPPA, which incorporates KRS administrative cost is subject to approval by the Kentucky General Assembly. KRS employer contribution rates are set by statute and subject to legislative approval. The methods used to determine the employer rates for KRS (KERS and SPRS) are specified in Kentucky Revised Statutes 61.565.

Perimeter Park West, Incorporated (PPW) is a legally separate entity functioning as a real estate holding company for the offices used by KPPA. PPW is governed by a three-member board selected by its sole shareholder, KRS.

## Recent Accounting Pronouncements

*GASB Statement Number 100, Accounting Changes and Error Corrections* - an amendment of *GASB Statement No. 62*. The requirements of this Statement will take effect for financial statements starting with the fiscal year that ends June 30, 2024. KRS had no Accounting Changes or Error Corrections for fiscal year June 30, 2024.

*GASB Statement Number 101, Compensated Absences*. The requirements of the Statement will take effect for financial statements starting with the fiscal year that ends December 31, 2024. Management is evaluating the impact of the Statement to the financial report.

*GASB Statement Number 102, Certain Risk Disclosures*. The requirements of the Statement will take effect for financial statements for fiscal years beginning after June 15, 2024. Management is evaluating the impact of the Statement to the financial report.

*GASB Statement Number 103, Financial Reporting Model Improvements*. The requirements of the Statement are effective for fiscal years beginning after June 15, 2025, and all reporting periods thereafter. Management is evaluating the impact of the Statement to the financial report.

## Note B. Description & Contribution Information

### KRS - Kentucky Employees Retirement System

KRS comprises the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS), and for financial reporting purposes, is composed of six Plans - three defined benefit pension Plans, and three OPEB plans, as discussed below. Each of the Pension and OPEB Plans are legally separated with benefits only eligible to be paid for each of the respective membership groups.

KERS was established by Kentucky Revised Statutes 61.515, to provide retirement, disability, and death benefits to system members. KERS, for financial reporting purposes, is composed of two pension Plans - KERS Nonhazardous Plan and KERS Hazardous Plan, and two corresponding OPEB Plans. The KERS Nonhazardous Plan was established to provide retirement benefits to all regular full-time members employed in positions of any state department, board, or agency directed by Executive Order to participate in KERS. The membership of the KERS Hazardous Plan includes employees whose position is considered hazardous with principal job duties including, but are not limited to, active law enforcement, probation and parole officer, detective, pilots, paramedics, and emergency medical technicians, with duties that require frequent exposure to a high degree of danger and also require a high degree of physical condition.

SPRS is a single employer defined benefit pension Plan that was established by Kentucky Revised Statutes 16.510 to provide retirement benefits to all full-time state troopers employed in positions by the Kentucky State Police, and all positions are considered Hazardous. SPRS, for financial reporting purposes, is composed of the retirement Plan, and a corresponding OPEB Plan.

The OPEB Plans are part of the Kentucky Retirement Systems Insurance Trust Fund (Insurance Fund), established by Kentucky Revised Statutes 61.701 for eligible members receiving benefits from KERS Nonhazardous, KERS Hazardous, and SPRS. The Insurance Fund was created for the purpose of providing a trust separate from the retirement trusts, and for the purpose of providing hospital and medical insurance benefits.

The responsibility of the Plans within KRS is vested in the KRS Board. The KRS Board consists of nine 9 members. Six trustees are appointed by the governor and three are elected. Of the elected trustees, two are elected by KERS members and one is elected by SPRS members. Active, inactive and retired members of the appropriate system are invited to participate in the election of trustees. Of the six appointed trustees, three must have investment experience and three must have retirement experience as defined by statute. All appointments by the governor are subject to Senate confirmation. The two trustees elected by the KERS membership must be members of or retired from KERS. The one trustee elected by the SPRS membership must be a member of or retired from SPRS.

### Employer Contributions

For the fiscal year ended June 30, 2024, there were 329 participating employers in KERS, and SPRS is a single employer plan. The Commonwealth is required to contribute at an actuarially determined rates for KERS and SPRS pensions and insurance. The KRS Board recommends the rates each year following the annual actuarial valuation, but the rates are set by the legislature within the budget bill for each biennium. The contribution rates from July 1, 2023, through June 30, 2024, were set within HB 1, passed in the 2022 Regular Legislative Session, for KERS Nonhazardous, KERS Hazardous and SPRS employers.

The KERS Nonhazardous employer contribution rate shall include, (1) the normal cost contribution and (2) the prorated amount of the actuarially accrued liability assigned to each individual nonhazardous employer in accordance with Kentucky Revised Statutes 61.565(1)(d). Each employer pays the normal cost as a percentage of reported payroll plus a flat amount to cover the employer-specific actuarially accrued liability contribution for the fiscal year as determined by the annual valuation.

Per Kentucky Revised Statutes 61.565 and 16.645(18), normal contribution and past service contribution rates shall be determined by the KRS Board on the basis of the last annual valuation preceding July 1 of a new biennium. The KRS 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 KRS Board. However, formal commitment to provide the contributions by the employer is made through the biennial budget for KERS and SPRS.

For the fiscal year ended June 30, 2024, participating employers of KERS Nonhazardous, KERS Hazardous and SPRS contributed a percentage of each employee's creditable compensation. The actuarially determined rates set

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by the KRS Board for the fiscal year is a percentage of each employee's creditable compensation. Administrative costs are financed through employer contributions and investment earnings.

**Contribution Rate Breakdown by Plan****As of June 30, 2024**

Plan	Pension		Insurance		Combined Total	
	Employer Contribution Rates	Actuarially Recommended Rates	Employer Contribution Rates	Actuarially Recommended Rates	Employer Contribution Rates	Actuarially Recommended Rates
KERS Nonhazardous *	7.82%	7.74%	2.15%	1.86%	9.97%	9.60%
KERS Hazardous	31.82%	30.12%	0.00%	0.00%	31.82%	30.12%
SPRS	85.32%	85.39%	14.11%	3.68%	99.43%	89.07%

\* House Bill 8 passed during the 2021 legislative session required, beginning July 1, 2021, the KERS Nonhazardous employers pay the normal cost for all employees plus a flat amount which is equal to their assigned percentage of the annual dollar amount that is sufficient to amortize the total unfunded actuarial accrued liability of the system over a closed period. The percentage is based on the liability that was attributable to the agency as of June 30, 2019.

**Benefit Tiers:**

As of June 30, 2024, the date of the most recent actuarial valuation, membership consisted of:

Membership as of June 30, 2024 (in Whole \$)				
Item	KERS Nonhazardous	KERS Hazardous	SPRS	KRS Total
<b>Members</b>	143,975	19,448	3,357	166,780
<b>Active Membership</b>	33,135	4,910	872	38,917
Tier 1	11,933	1,075	310	13,318
Tier 2	4,766	720	180	5,666
Tier 3	16,436	3,115	382	19,933
<b>Average Annual Salary</b>	\$57,357	\$62,496	\$84,054	\$-
<b>Average Age</b>	45.5	39.9	37.4	-
<b>Retired Membership</b>	52,686	5,084	1,736	59,506
Tier 1	51,993	4,994	1,732	58,719
Tier 2	604	75	1	680
Tier 3	89	15	3	107
<b>Average Annual Benefit</b>	\$21,131	\$16,287	\$39,596	\$-
<b>Average Age</b>	71.2	66.5	65.0	-
<b>Inactive Members</b>	58,154	9,454	749	68,357
Tier 1	32,334	2,282	269	34,885
Tier 2	9,800	1,625	133	11,558
Tier 3	16,020	5,547	347	21,914

**TIER 1:**

Tier 1 plan members who began participating prior to September 1, 2008, are required to contribute 5% (Nonhazardous) or 8% (Hazardous) of their annual creditable compensation. These members are classified in the Tier 1 structure of benefits. Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest.

**TIER 2:**

Tier 2 plan members, who began participating on or after September 1, 2008, and before January 1, 2014, are required to contribute 5% (Nonhazardous) or 8% (Hazardous) of their annual creditable compensation. Further, members also contribute an additional 1% which is deposited to an account created for payment of health insurance benefits under 26 USC Section 401(h) in the Insurance Fund (see Kentucky Administrative Regulation (KAR) 105 KAR 1:420). These members are classified in the Tier 2 structure of benefits. Interest is paid each June 30 on members' accounts as of the June 30 of the previous year 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% Health Insurance Contribution (HIC) to the 401(h) account is non-refundable and is forfeited.

**TIER 3:**

Tier 3 plan members, who began participating on or after January 1, 2014, are 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 contribute 5% (Nonhazardous) or 8% (Hazardous) of their monthly creditable compensation which is deposited into their account, and an additional 1% which is deposited to an account created for payment of health insurance benefits under 26 USC Section 401(h) in the Insurance Fund (see 105 KAR 1:420), which is not refundable. Tier 3 member accounts are also credited with an employer pay credit in the amount of 4% (Nonhazardous) or 7.5% (Hazardous) of the member's monthly creditable compensation. The employer pay credit amount is deducted from the total employer contribution rate paid on the member's monthly creditable compensation. If a vested (60 months of service) member terminates employment and applies to take a refund, the member is entitled to the members contributions (less HIC) plus employer pay credit plus interest (for both employee contributions and employer pay). If a non-vested (less than 60 months) member terminates employment and applies to take a refund, the member is entitled to receive employee contributions (less HIC) plus interest (on employee contributions only).

Interest is also paid into the Tier 3 member's account. The account currently earns 4% interest credit on the member's accumulated account balance as of June 30 of the previous year. The member's account may be credited with additional interest if the plan's five-year Geometric Average Net Investment Return (GANIR) exceeded 4%. If the member was actively employed and participating in the fiscal year, and if KRS's GANIR for the previous five years exceeds 4%, then the member's account will be credited with 75% of the amount of the returns over 4% on the account balance as of June 30 of the previous year (Upside Sharing Interest). It is possible that one plan in KRS may get an Upside Sharing Interest, while another may not.

**Upside Sharing Interest**

Upside Sharing Interest is credited to both the member contribution balance and employer pay credit balance. Upside Sharing Interest is an additional interest credit. Member accounts automatically earn 4% interest annually. The GANIR is calculated on an individual plan basis.

The chart that follows shows the interest calculated on the members' balances as of June 30, 2023, and credited to each member's account on June 30, 2024.



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(A-B) = C x 75% = D then B + D = Interest (\$ in Thousands)						
Plan	A 5-Year Geometric Average Return	B Less Guarantee Rate of 4%	C Upside Sharing Interest	D Upside Sharing Interest X 75% = Upside Gain	Interest Rate Earned (4% + Upside)	Total Interest Credited to Member Accounts
KERS Nonhazardous	6.39%	4.00%	2.39%	1.79%	5.79%	\$13,424
KERS Hazardous	7.47%	4.00%	3.47%	2.60%	6.60%	\$4,668
SPRS	6.87%	4.00%	2.87%	2.15%	6.15%	\$791

## Insurance Fund Description

Eligible non-Medicare retirees are covered by the Department of Employee Insurance (DEI) plans, eligible Medicare retirees are covered through contracts with Humana through a Medicare Advantage Plan. 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, 2024, insurance premiums withheld from benefit payments for KRS's members were \$15.8 million and \$1.2 million for KERS Nonhazardous and Hazardous, respectively; and \$0.4 million for SPRS.

Retiree Medical Insurance Coverage (by Plan Count) As of June 30, 2024						
Plan	Single	Couple/ Family	Parent	Medicare Without Prescription	Medicare With Prescription	Total
KERS Nonhazardous	6,334	473	395	939		22,947
KERS Hazardous	621	462	108	66		1,843
SPRS	239	415	79	16		1,019
<b>Total</b>	<b>7,194</b>	<b>1,350</b>	<b>582</b>	<b>1,021</b>		<b>25,809</b>

*Note: Medical Insurance coverage is provided based on the member's initial participation date and length of service. Members receive either a percentage or dollar amount for insurance coverage. The counts are the number of medical plans contracted with the Department of Employee Insurance or Medicare vendor and are not representative of the number of persons.*

The amount of benefit paid by the Insurance Fund is based on years of service. For members who began participating prior to July 1, 2003, a percentage of the contribution rate is paid based on years of service with 100% of the contribution rate being paid with 20 years of service.

For members participating prior to July 1, 2003, years of service and respective percentages of the maximum benefit are as follows:

Years of Service	Paid by Insurance Fund (%)
20+ years	100.00%
15-19 years	75.00%
10-14 years	50.00%
4-9 years	25.00%
Less than 4 years	0.00%

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Since the passage of House Bill 290 (2004 Kentucky General Assembly), medical insurance benefits have been calculated differently for members who began participating on or after July 1, 2003. Once members reach a minimum vesting period of 10 years, Nonhazardous 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. Hazardous employees whose participation began on or after July 1, 2003, earn \$15 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. Upon death of a Hazardous employee, the employee's spouse receives \$10 per month for insurance benefits for each year of the deceased employee's earned Hazardous service. This dollar amount is subject to adjustment annually, which is currently 1.5%, based upon Kentucky Revised Statutes.

House Bill 1 (2008 Kentucky General Assembly) changed the minimum vesting requirement for participation in the health insurance plan to 15 years for members whose participation began on or after September 1, 2008. This benefit is not protected under the inviolable contract provisions of Kentucky Revised Statutes 16.652, and 61.692. The Kentucky General Assembly reserves the right to suspend or reduce this benefit if, in its judgment, the welfare of the Commonwealth so demands.

The amount of benefit paid by the Insurance Fund is based on years of service. For members participating on or after July 1, 2003, the dollar amounts of the benefit per year of service are as follows:

Dollar Contribution for Fiscal Year 2024 For Member participation date on or after July 1, 2003	
	(in Whole \$)
KERS Nonhazardous	\$14.41
KERS Hazardous	\$21.62
SPRS	\$21.62

The Insurance Plan pays 100% of the contribution rate for hospital and medical insurance premiums for the spouse and dependents of members who die as a direct result of an act in the line of duty or from a duty-related injury.

### Cost of Living Adjustment (COLA)

Prior to July 1, 2009, COLAs were provided to retirees annually equal to the percentage increase in the annual average of the consumer price index (CPI) for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. After July 1, 2009, the COLAs were to be limited to 1.50%.

In 2013, the General Assembly created a new law to govern how COLAs will be granted. Language included in Senate Bill 2 during the 2013 Regular Session states COLAs will only be granted in the future if the KRS Board determine that assets of the Systems are greater than 100% of the actuarial liabilities and legislation authorizes the use of surplus funds for the COLA; or the General Assembly fully prefunds the COLA or directs the payment of funds in the year the COLA is provided. The granting of COLAs for the KERS and SPRS membership is covered under Kentucky Revised Statutes 61.691. No COLA has been granted since July 1, 2011.

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

The provisions of GASB *Statement No. 28 Accounting and Financial Reporting for Securities Lending Transactions* require that cash received as collateral on securities lending transactions and investments made with that cash must be reported as assets on the financial statements. The non-cash collateral is not reported because the securities received as collateral are unable to be pledged or sold unless the borrower defaults. 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:

### Cash, Short-Term Investments, & Securities Lending Collateral

As of June 30, 2024 (\$ in Thousands)

KERS Nonhazardous	Pension	Insurance
Cash	\$268	\$100
Short-Term Investments	254,633	68,261
Securities Lending Collateral Invested	109,246	33,811
<b>Total</b>	<b>\$364,147</b>	<b>\$102,172</b>

KERS Hazardous	Pension	Insurance
Cash	\$27	\$23
Short-Term Investments	49,952	20,702
Securities Lending Collateral Invested	26,629	13,516
<b>Total</b>	<b>\$76,608</b>	<b>\$34,241</b>

SPRS	Pension	Insurance
Cash	\$29	\$18
Short-Term Investments	38,006	9,876
Securities Lending Collateral Invested	16,923	5,449
<b>Total</b>	<b>\$54,958</b>	<b>\$15,343</b>

## Note D. Investments

Kentucky Revised Statutes 61.650 specifically state that the KRS Board shall have the full and exclusive power to invest and reinvest the funds of the Plan(s) they govern. In addition, Kentucky Revised Statutes 61.645 require three (3) members of the KRS Board to have at least ten (10) years of investment experience as defined by the statutes. The KRS Board is required to establish an Investment Committee who is specifically charged with implementing the investment policies adopted by the KRS Board and to act on behalf of the KRS Board of Trustees on all investment-related matters. The KRS Board and the Investment Committee members are required to discharge their duty to invest the funds of the Plans in accordance with the “Prudent Person Rule” as set forth in Kentucky Revised Statutes 61.650 and to manage those funds consistent with the long-term nature of the trusts and solely in the interest of the members and beneficiaries. All internal Investment Staff, and investment consultants must adhere to the Code of Ethics and Standards of Professional Conduct of the CFA Institute and all Board Trustees must adhere to the Code of Conduct for Members of a Pension Scheme Governing Body of the CFA Institute. The KRS Board is authorized to adopt policies. The KRS Board has adopted an Investment Policy Statement (IPS) which defines the framework for investing the assets of the Plans. The IPS is intended to provide general principles for establishing the investment goals of the Plans, the allocation of assets, employment of outside asset management, and monitoring the results of the respective Plans. A copy of the KRS Board’s IPS can be found at [kyret.ky.gov](http://kyret.ky.gov). By statutes, the KRS Board, through adopted written policies, shall maintain ownership and control over its assets held in its unitized managed custodial account. Additionally, the Investment Committee establishes specific investment guidelines that are summarized below and are included in the Investment Management Agreement (IMA) for each investment management firm.

### Equity

#### *Public Equity*

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 (ETFs); or any other type of security contained in a manager’s benchmark. Each individual equity account has a comprehensive set of investment guidelines, which contains a listing of permissible investments, portfolio restrictions, and standards of performance.

#### *Private Equity*

Subject to the specific approval of the Investment Committee, Private Equity investments may be made for the purpose of creating a diversified portfolio of alternative investments under the Equity umbrella. Private Equity investments are expected to achieve attractive risk-adjusted returns and, by definition, possess a higher degree of risk with a higher return potential than traditional investments. Accordingly, total rates of return from Private Equity investments are expected to be greater than those that might be obtained from conventional public equity or debt investments. Certain investments in this category are public market securities (ETFs) with the most similar risk/return characteristics as a short-term proxy for private asset classes.

### Fixed Income

#### *Core Fixed Income*

The Core Fixed Income accounts may include, but are not limited to, the following securities: U.S. government and agency bonds; investment grade U.S. corporate credit; investment grade non-U.S. corporate credit; mortgages, including residential mortgage-backed securities; commercial mortgage-backed securities and whole loans; asset-backed securities; and, asset class relevant ETFs.

#### *Specialty Credit*

The Specialty Credit accounts may include, but are not limited to, the following types of securities and investments: non-investment grade U.S. corporate credit including both bonds and bank loans; non-investment grade non-U.S. corporate credit including bonds and bank loans; private debt; municipal bonds; non-U.S. sovereign debt; mortgages, including residential mortgage-backed securities; commercial mortgage backed securities and whole loans; asset-backed securities and emerging market debt (EMD), including both sovereign EMD and corporate EMD; and asset class relevant ETFs. Each individual Specialty Credit account shall have a comprehensive set of investment guidelines which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

### Cash and 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 funds (STIFs), money market funds or instruments (including, but not limited to certificates of deposit, bank notes, deposit notes, bankers' acceptance 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 397 days.

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.

### Inflation Protected

#### Real Estate and Real Return

Subject to the specific approval of the corresponding Investment Committee, investments may be made to create a diversified portfolio of alternative investments. Investments are made in equity and debt real estate for the purpose of achieving the highest total rate of return possible consistent with a prudent level of risk. There may also be investments in this category that are public markets securities, such as ETFs, with similar risk/return characteristics as a short-term proxy. The purpose of the Real Return investments are to identify strategies that provide both favorable stand-alone risk-adjusted returns as well as the benefit of hedging inflation for the broader plans.

### Investment Expenses

In accordance with GASB *Statement No. 67 and No. 74, Financial Reporting for Pension Plans and Other Postemployment Benefit Plans other than Pension Plans*, management has exercised professional judgment to report investment expenses. It is not cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses. In fiscal year 2015, management changed Private Equity investment fees from a gross basis to a net basis. The KRS Board made the decision to enhance transparency reporting. Prior to 2015, the majority of the trusts' Private Equity investment fees were netted against investment activity which is the standard used within the Private Equity sector. Trusts' net investment income has always included these fees regardless of the reporting method used. During the 2017 Regular Session of the Kentucky General Assembly, legislators passed SB 2 which requires the reporting of all investment fees and expenses. Management continues to work with managers to enhance fee and expense reporting.

### Derivatives

Derivative instruments are financial contracts that have various effective dates and maturity dates and whose values depend on the values of one or more underlying assets, reference rates, or financial indices. External managers and Investment Staff are permitted to invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position. Any derivative security shall be sufficiently liquid that it can be expected to be sold at, or near, its most recently quoted market price. Examples of such derivatives include, but are not limited to the following securities: foreign currency forward contracts; futures; options; and swaps.

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

In accordance with GASB *Statement No. 53, Accounting and Financial Reporting for Derivative Instruments*, KRS provides additional disclosure regarding its derivatives. The charts included represent the derivatives by types as of June 30, 2024. The chart shows the change in fair value of derivative types as well as the current fair value and notional value. The notional value is the reference amount of the underlying asset times its current spot price. The Plans hold investments in options, commitments, futures, and forward foreign exchange contracts.

**KERS Pension and Insurance Derivative Instruments - GASB 53****As of June 30, 2024 (\$ in Thousands)**

<b>Derivatives (by Type)</b>	<b>Net Appreciation (Depreciation) in Fair Value</b>	<b>Classification</b>	<b>Fair Value</b>	<b>Notional</b>
<b>KERS Nonhazardous - Pension</b>				
FX Spots and Forwards	\$48	Investment	\$45	-
Futures	1,924	Investment	(118)	29,760
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-
<b>KERS Nonhazardous - Insurance</b>				
FX Spots and Forwards	\$30	Investment	\$28	-
Futures	458	Investment	(18)	5,132
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-
<b>KERS Hazardous - Pension</b>				
FX Spots and Forwards	\$24	Investment	\$22	-
Futures	291	Investment	(13)	2,576
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-
<b>KERS Hazardous - Insurance</b>				
FX Spots and Forwards	\$-	Investment	\$1	-
Futures	198	Investment	(4)	2,679
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-

**SPRS Pension and Insurance Derivative Instruments - GASB 53****As of June 30, 2024 (\$ in Thousands)**

<b>Derivatives (by Type)</b>	<b>Net Appreciation (Depreciation) in Fair Value</b>	<b>Classification</b>	<b>Fair Value</b>	<b>Notional</b>
<b>SPRS Pension</b>				
FX Spots and Forwards	\$10	Investment	\$9	-
Futures	323	Investment	(18)	4,453
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-
<b>SPRS Insurance</b>				
FX Spots and Forwards	\$7	Investment	\$6	-
Futures	74	Investment	(3)	701
Commits and Options	-	Investment	-	-
Swaps	-	Investment	-	-

### Derivative Instruments Subject to Counterparty Credit Risk - GASB 53 As of June 30, 2024

Counterparty	S & P Ratings	KERS Percentage of Net Exposure	KERS INS Percentage of Net Exposure	KERS Haz Percentage of Net Exposure	KERS Haz INS Percentage of Net Exposure	SPRS Percentage of Net Exposure	SPRS INS Percentage of Net Exposure
Australia & New Zealand Banking Group Ltd	AA-	0.66%	1.21%	0.33%	0.05%	0.14%	0.27%
The Bank of America	A-	0.11%	0.14%	0.04%	0.05%	0.02%	0.02%
The Bank of New York Mellon Corp	A	0.30%	0.60%	0.14%	0.07%	0.06%	0.13%
Barclays PLC	BBB+	1.04%	1.91%	0.50%	0.10%	0.21%	0.43%
Brown Brothers Harriman & Co	NR	0.09%	0.15%	0.03%	0.05%	0.01%	0.02%
Canadian Imperial Bank of Commerce	A+	1.45%	2.65%	0.70%	0.12%	0.30%	0.60%
Citigroup Inc	BBB+	1.04%	1.89%	0.51%	0.08%	0.21%	0.43%
The Goldman Sachs Group Inc	BBB+	0.75%	1.38%	0.37%	0.07%	0.15%	0.31%
HSBS Holding PLC	A-	1.52%	3.40%	0.74%	0.16%	0.31%	0.77%
JPMorgan Chase & Co	A-	0.54%	1.02%	0.25%	0.11%	0.11%	0.22%
Morgan Stanley	A-	0.93%	1.70%	0.46%	0.07%	0.19%	0.39%
Royal Bank of Canada	AA-	1.00%	1.96%	0.49%	0.09%	0.21%	0.44%
State Street Corp	A	1.12%	2.06%	0.54%	0.11%	0.23%	0.46%
The Toronto-Dominion Bank	AA-	0.04%	0.09%	0.01%	0.03%	0.01%	0.01%
UBS Group AG	A-	0.87%	2.19%	0.41%	0.18%	0.17%	0.48%
Westpac Banking Corp	AA-	0.03%	0.05%	0.01%	0.02%	0.00%	0.01%
<b>TOTAL</b>		<b>11.49%</b>	<b>22.40%</b>	<b>5.53%</b>	<b>1.36%</b>	<b>2.33%</b>	<b>4.99%</b>

### Custodial Credit Risk for Deposits

Custodial credit risk for deposits is the risk that may occur as a result of a financial institution's failure, whereby KRS deposits may not be returned. All non-investment related bank balances are held by JP Morgan Chase and each individual account is insured by the Federal Deposit Insurance Corporation (FDIC). None of these balances were exposed to custodial credit risk as they were either insured or collateralized at required levels.

### Custodial Credit Risk for Deposits - GASB 40 As of June 30, 2024 (\$ in Thousands)

KERS Nonhazardous Pension	\$982
KERS Nonhazardous Insurance	100
KERS Hazardous Pension	26
KERS Hazardous Insurance	24
SPRS Pension	41
SPRS Insurance	19
Clearing	246
Excess Benefit	\$-

Note: All the above balances are held at JPM Chase

## 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 an investment or collateral securities that are in the possession of an outside party. As of June 30, 2024, the currencies in the chart below were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in KERS's or SPRS's name. Below are total cash and securities held by Global Managers and consist of various currencies.

<b>Custodial Credit Risk for Investments - GASB 40</b>	
<b>As of June 30, 2024 (\$ in Thousands)</b>	
<b>KERS</b>	
KERS Nonhazardous Pension Foreign Currency	\$354,933
KERS Nonhazardous Insurance Foreign Currency	204,865
KERS Hazardous Pension Foreign Currency	119,039
KERS Hazardous Insurance Foreign Currency	79,907
<b>SPRS</b>	
SPRS Pension Foreign Currency	59,555
SPRS Insurance Foreign Currency	\$34,375

## Investment Summary - GASB 40 As of June 30, 2024 (\$ in Thousands)

Investment Summary - GASB 40 As of June 30, 2024 (\$ in Thousands)	Pension			Insurance		
	KERS	KERS	SPRS	KERS	KERS	SPRS
	Nonhazardous	Hazardous		Nonhazardous	Hazardous	
Type	Fair Value			Fair Value		
Core Fixed Income	\$1,096,029	\$115,245	\$166,303	\$189,154	\$75,625	\$29,762
Public Equities	1,347,282	431,605	205,635	708,372	284,692	114,446
Private Equities	194,862	66,044	31,411	111,418	48,804	21,728
Specialty Credit	785,092	229,560	123,774	375,074	151,347	61,598
Derivatives	(73)	9	(9)	10	(3)	3
Real Return	349,425	79,738	56,205	135,580	45,489	18,475
Real Estate	217,911	58,902	35,155	95,993	42,344	16,169
Short-Term Investments	254,633	49,952	38,006	68,261	20,702	9,876
Accounts Receivable (Payable), Net	(36,760)	(5,138)	(5,678)	(6,162)	(1,566)	(901)
<b>Total</b>	<b>\$4,208,401</b>	<b>\$1,025,917</b>	<b>\$650,802</b>	<b>\$1,677,700</b>	<b>\$667,434</b>	<b>\$271,156</b>

## Credit Risk 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 Staff and by external investment management firms. All portfolio managers are required by the KRS IPS 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 Plans' debt securities portfolios are managed using the following guidelines adopted by the KRS Board:

- Bonds, notes, or other obligations issued or guaranteed by the U.S. Government, its agencies or instrumentalities are permissible investments and may be held without restrictions.
- The duration of the core fixed income portfolios combined shall not vary from that of the system's Fixed Income Index by more than +/- 25% duration as measured by effective duration, modified duration or dollar duration except when the system's Investment Committee has determined a target duration to be used for an interim basis.
- The amount invested in the debt of a single corporation shall not exceed 5% of the total fair value of KRS' assets.
- No public Fixed Income manager shall invest more than 5% of the fair value of assets held in any single issue Short-Term instrument with the exception of U.S. Government issued, guaranteed or agency obligations.



As of June 30, 2024, the portfolio had \$559.5 million in debt securities rated below BBB- which does not include not rated (NR).

<b>Debt Securities - GASB 40</b>						
<b>As of June 30, 2024 (\$ in Thousands)</b>						
<b>Type</b>	<b>Pension</b>			<b>Insurance</b>		
	<b>KERS Nonhazardous</b>	<b>KERS Hazardous</b>	<b>SPRS</b>	<b>KERS Nonhazardous</b>	<b>KERS Hazardous</b>	<b>SPRS</b>
AAA	\$59,615	\$7,367	\$9,189	\$12,282	\$4,295	\$2,011
AA+	2,945	504	474	651	154	123
AA	3,776	735	620	1,108	242	214
AA-	5,006	729	788	1,126	331	200
A+	17,622	1,923	2,680	3,241	1,253	503
A	19,049	2,165	2,913	3,536	1,314	576
A-	41,692	4,458	6,336	7,168	2,817	1,137
BBB+	52,907	6,052	8,097	9,693	3,621	1,557
BBB	38,273	5,233	5,961	8,884	2,805	1,419
BBB-	46,334	10,425	7,787	16,803	3,683	2,467
BB+	31,438	9,490	6,042	15,826	3,246	2,002
BB	45,057	13,652	8,740	24,088	5,440	2,562
BB-	45,881	13,780	8,877	24,407	5,541	2,569
B+	32,362	9,864	6,103	18,090	3,970	1,893
B	43,960	13,236	8,046	24,893	5,546	2,418
B-	34,468	10,197	6,424	19,013	4,371	1,829
CCC+	15,030	4,358	2,977	7,817	1,885	794
CCC	4,165	1,235	832	2,209	514	238
CCC-	827	235	167	438	109	44
D	134	41	22	95	20	9
NR	861,190	175,299	123,788	274,974	142,639	52,586
<b>Total Credit Risk Debt Securities</b>	<b>1,401,731</b>	<b>290,978</b>	<b>216,863</b>	<b>476,342</b>	<b>193,796</b>	<b>77,151</b>
Government Agencies	9,360	1,283	1,462	2,268	718	393
Government Mortgage-Backed Securities	196,411	21,114	29,866	35,246	13,832	5,596
Government Issued Commercial Mortgage Backed	2,315	243	351	499	199	78
Government Collateralized Mortgage Obligations	5,222	934	846	1,403	340	264
Government Bonds	266,082	30,253	40,689	48,470	18,087	7,878
<b>Total</b>	<b>\$1,881,121</b>	<b>\$344,805</b>	<b>\$290,077</b>	<b>\$564,228</b>	<b>\$226,972</b>	<b>\$91,360</b>

*Note: These ratings are based on Standard & Poor's (S&P) Global Ratings. Where S&P ratings are unavailable, equivalent Moody's Ratings are used as proxies.*

*Differences due to rounding.*

*Government Agencies, Government Mortgage-Backed Securities, Government Issued Commercial Mortgage Backed and Government Bonds are highly rated securities since they are backed by the US Government.*

*The NR reported indicates a rating has not been assigned.*

## 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 KRS Board: bonds, notes, or other obligations issued or guaranteed by the U.S. Government, its agencies, or instrumentalities are permissible investments and may be held without restrictions. The amount invested in the debt of a single issuer shall not exceed 5% of the total fair value of the Plans' fixed income assets.

## 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 and can be measured using two methodologies: effective or 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.

Below are the fair values and modified durations for the combined fixed income securities.

<b>Interest Rate Risk - Modified Duration - GASB 40</b>										
<b>As of June 30, 2024 (\$ in Thousands)</b>										
TYPE	Pension				Insurance					
	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration
<b>KERS</b>										
Asset Backed Securities	\$57,829	2.71	\$7,819	2.62	\$13,749	2.40	\$4,517	2.51		
Financial Institutions	113,300	3.96	22,977	3.06	40,455	2.99	10,375	3.54		
Collateralized Mortgage Obligations	12,346	4.69	1,982	3.27	2,898	3.31	765	4.69		
Commercial Mortgage Backed Securities	8,840	4.12	1,367	3.85	2,216	3.90	635	4.15		
Corporate Bonds - Industrial	305,027	4.37	75,630	3.66	132,021	3.56	31,606	3.94		
Corporate Bonds - Utilities	52,742	5.12	7,496	4.75	13,167	4.68	4,294	4.91		
Agencies	9,360	4.85	1,283	4.61	2,268	4.56	718	4.75		
Government Bonds - Sovereign Debt	2,652	10.64	410	8.98	674	9.95	191	11.45		
Mortgage Back Securities Pass-through - Not CMO's	196,411	6.12	21,114	6.11	35,246	6.08	13,832	6.08		
Local Authorities - Municipal Bonds	12,258	7.42	2,219	8.48	3,304	8.31	800	7.14		
Supranational - Multi-National Bonds	590	2.51	289	2.51	378	2.60	16	2.60		
Treasuries	266,082	6.93	30,253	6.81	48,470	6.93	18,087	7.04		
Unclassified	843,684	0.08	171,966	0.13	269,382	0.15	141,136	0.05		
<b>Total</b>	<b>\$1,881,121</b>	<b>2.97</b>	<b>\$344,805</b>	<b>2.32</b>	<b>\$564,228</b>	<b>2.50</b>	<b>\$226,972</b>	<b>1.96</b>		

<b>Interest Rate Risk - Modified Duration - GASB 40</b>				
<b>As of June 30, 2024 (\$ in Thousands)</b>				
TYPE	Pension		Insurance	
	Fair Value	Weighted Avg Modified Duration	Fair Value	Weighted Avg Modified Duration
<b>SPRS</b>				
Asset Backed Securities	\$8,904	2.71	\$1,901	2.55
Financial Institutions	18,725	3.88	4,743	3.43
Collateralized Mortgage Obligations	1,968	4.49	533	2.93
Commercial Mortgage Backed Securities	1,402	4.09	398	3.83
Corporate Bonds - Industrial	55,109	4.27	15,276	3.88
Corporate Bonds - Utilities	8,427	5.07	1,867	4.82
Agencies	1,462	4.82	393	4.49
Government Bonds - Sovereign Debt	421	10.41	121	9.49
Mortgage Back Securities Pass-through - Not CMO's	29,866	6.12	5,596	6.08
Local Authorities - Municipal Bonds	1,989	7.59	621	8.61
Supranational - Multi-National Bonds	121	2.51	86	2.60
Treasuries	40,689	6.92	7,877	6.88
Unclassified	120,994	0.09	51,948	0.08
<b>Total</b>	<b>\$290,077</b>	<b>3.07</b>	<b>\$91,360</b>	<b>2.21</b>

## Foreign Currency Risk

Foreign currency risk is the risk that occurs if exchange rates adversely affect the value of a non-U.S. dollar based investment or deposit within the portfolios. Currency risk exposure, or exchange rate risk, primarily resides with the portfolios Non-U.S. equity holdings, but also affects other asset classes. KRS doesn't 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 Fair Value of Investments on the combining financial statements.

Foreign Currency Risk - GASB 40						
As of June 30, 2024 (\$ in Thousands)						
	Pension			Insurance		
	KERS	KERS	SPRS	KERS	KERS	SPRS
	Nonhazardous	Hazardous		Nonhazardous	Hazardous	
Australian Dollar	\$11,788	\$4,002	\$2,008	\$7,040	\$2,460	\$1,138
Brazilian Real	6,103	2,088	1,043	3,708	1,282	602
Canadian Dollar	14,075	4,683	2,375	8,192	2,984	1,298
Czech Koruna	5	2	1	4	2	1
Danish Krone	13,996	4,598	2,348	8,312	3,103	1,301
Egyptian Pound	141	46	24	64	24	10
Euro	108,691	37,343	18,054	58,201	26,169	11,205
Hong Kong Dollar	24,431	8,026	4,099	14,390	5,372	2,252
Hungarian Forint	1,737	571	291	981	366	153
Indian Rupee	11,488	3,836	1,942	6,539	2,364	1,040
Indonesian Rupiah	6,146	2,178	1,068	3,572	1,130	602
Israeli Shekel	1,232	405	207	730	272	114
Japanese Yen	44,722	14,799	7,528	26,684	9,826	4,205
Malaysian Ringgit	383	188	79	236	10	53
Mexican Peso	1,596	551	274	969	329	159
New Taiwan Dollar	17,081	5,612	2,866	9,873	3,687	1,545
New Zealand Dollar	(708)	(348)	(145)	(454)	(20)	(103)
Norwegian Krone	1,154	532	229	708	70	152
Philippine Peso	539	264	110	345	15	78
Pound Sterling	38,318	12,590	6,430	22,909	8,549	3,586
Singapore Dollar	1,084	242	156	681	400	76
South African Rand	2,046	672	343	1,225	457	192
South Korean Won	12,361	4,162	2,098	7,759	2,769	1,241
Swedish Krona	5,928	1,947	994	3,666	1,369	574
Swiss Franc	25,319	8,317	4,248	15,410	5,753	2,412
Thai Baht	3,319	1,090	557	1,930	721	302
Turkish Lira	1,437	472	241	860	321	135
UAE Dirham	521	171	87	331	123	52
<b>Total Foreign Investment Securities</b>	<b>354,933</b>	<b>119,039</b>	<b>59,555</b>	<b>204,865</b>	<b>79,907</b>	<b>34,375</b>
U.S. Dollar	3,853,468	906,878	591,247	1,472,835	587,527	236,781
<b>Total Investment Securities</b>	<b>\$4,208,401</b>	<b>\$1,025,917</b>	<b>\$650,802</b>	<b>\$1,677,700</b>	<b>\$667,434</b>	<b>\$271,156</b>

## Fair Value Measurement and Applications (GASB 72)

In accordance with GASB *Statement No. 72, Fair Value Measurement and Application*, KRS provides this additional disclosure regarding the fair value of its Pension and Insurance investments. KRS categorizes its fair value measurements within the fair value hierarchy established by GAAP.

### KRS defined the Fair Value Hierarchy and Levels as follows:

#### Level 1

Quoted prices (unadjusted) in an active market for identical assets or liabilities that KRS has the ability to access at the measurement date (e.g., prices derived from NYSE, NASDAQ, Chicago Board of Trade, and Pink Sheets). Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using quoted prices (unadjusted) in an active market for identical assets or liabilities that KRS has the ability to access at the measurement date.

#### Level 2

Inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include matrix pricing, market corroborated pricing and inputs such as yield curves and indices.

#### Level 3

Unobservable inputs for an asset or liability, which generally results in using the best information available for the valuation of the assets or liabilities being reported.

### Net Asset Value (NAV)

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (NAV). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed.

### Fair Value Measurements and Application (GASB 72) Pension As of June 30, 2024 (\$ in Thousands)

Asset Type	KERS Nonhazardous			Total	KERS Hazardous			Total	SPRS			Total
	Level				Level				Level			
	1	2	3	Fair Value	1	2	3	Fair Value	1	2	3	Fair Value
<b>Public Equity</b>												
Emerging Markets	\$55,743	\$-	\$-	\$55,743	\$18,312	\$-	\$-	\$18,312	\$9,353	\$-	\$-	\$9,353
US Equity	828,448	-	-	828,448	264,683	-	-	264,683	126,498	-	-	126,498
Non-US Equity	336,028	-	-	336,028	110,388	-	-	110,388	56,380	-	-	56,380
<b>Total Public Equity</b>	<b>1,220,219</b>	<b>-</b>	<b>-</b>	<b>1,220,219</b>	<b>393,383</b>	<b>-</b>	<b>-</b>	<b>393,383</b>	<b>192,231</b>	<b>-</b>	<b>-</b>	<b>192,231</b>
<b>Fixed Income</b>												
Agencies	-	2,557	-	2,557	-	269	-	269	-	388	-	388
Asset-Backed	-	48,854	-	48,854	-	6,877	-	6,877	-	7,541	-	7,541
Bank & Finance	-	57,226	84,838	142,064	-	7,829	27,120	34,949	-	9,026	14,210	23,236
Cash & Cash Equivalent	4,049	(149)	-	3,900	426	(18)	-	408	615	(23)	-	592
Corporate	359,667	361,956	248	721,871	38,218	80,070	89	118,377	54,606	64,477	44	119,127
Healthcare	-	18,381	-	18,381	-	2,931	-	2,931	-	2,985	-	2,985
Insurance	-	4,337	-	4,337	-	587	-	587	-	684	-	684
Municipals	-	10,439	-	10,439	-	1,619	-	1,619	-	1,656	-	1,656
Sovereign Debt	-	13,055	-	13,055	-	4,203	-	4,203	-	2,374	-	2,374
US Government	262,723	203,148	-	465,871	28,024	21,824	-	49,848	39,919	30,888	-	70,807
<b>Total Fixed Income</b>	<b>626,439</b>	<b>719,804</b>	<b>85,086</b>	<b>1,431,329</b>	<b>66,668</b>	<b>126,191</b>	<b>27,209</b>	<b>220,068</b>	<b>95,140</b>	<b>119,996</b>	<b>14,254</b>	<b>229,390</b>
<b>Derivatives</b>												
Futures	(118)	-	-	(118)	(13)	-	-	(13)	(18)	-	-	(18)
Foreign Exchange	44	-	-	44	22	-	-	22	9	-	-	9
<b>Total Derivatives</b>	<b>(74)</b>	<b>-</b>	<b>-</b>	<b>(74)</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>(9)</b>	<b>-</b>	<b>-</b>	<b>(9)</b>
<b>Private Equity ETFs</b>	<b>45,337</b>	<b>-</b>	<b>-</b>	<b>45,337</b>	<b>9,331</b>	<b>-</b>	<b>-</b>	<b>9,331</b>	<b>15,583</b>	<b>-</b>	<b>-</b>	<b>15,583</b>
<b>Real Estate ETFs</b>	<b>29,277</b>	<b>-</b>	<b>-</b>	<b>29,277</b>	<b>11,711</b>	<b>-</b>	<b>-</b>	<b>11,711</b>	<b>3,904</b>	<b>-</b>	<b>-</b>	<b>3,904</b>
<b>Real Return</b>	<b>275,294</b>	<b>-</b>	<b>11</b>	<b>275,305</b>	<b>62,494</b>	<b>-</b>	<b>3</b>	<b>62,497</b>	<b>41,291</b>	<b>-</b>	<b>1</b>	<b>41,292</b>
<b>Total Investments at Fair Value</b>	<b>2,196,492</b>	<b>719,804</b>	<b>85,097</b>	<b>3,001,393</b>	<b>543,596</b>	<b>126,191</b>	<b>27,212</b>	<b>696,999</b>	<b>348,140</b>	<b>119,996</b>	<b>14,255</b>	<b>482,391</b>
<b>Investments Measured at NAV</b>												
Specialty Credit	-	-	-	475,127	-	-	-	130,638	-	-	-	65,060
Private Equity	-	-	-	149,949	-	-	-	56,799	-	-	-	15,969
Real Estate	-	-	-	188,932	-	-	-	47,310	-	-	-	31,291
Real Return	-	-	-	76,480	-	-	-	17,755	-	-	-	15,266
Fixed Income	-	-	-	41,214	-	-	-	4,334	-	-	-	6,254
Non US Equity	-	-	-	134,559	-	-	-	40,684	-	-	-	14,657
Emerging Markets	-	-	-	897	-	-	-	295	-	-	-	150
US Equity	-	-	-	6,972	-	-	-	2,517	-	-	-	1,291
<b>Total Investments Measured at NAV</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,074,130</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>300,332</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>149,938</b>
<b>Cash and Accruals</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>132,878</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>28,586</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18,473</b>
<b>Total Investments</b>	<b>\$2,196,492</b>	<b>\$719,804</b>	<b>\$85,097</b>	<b>\$4,208,401</b>	<b>\$543,596</b>	<b>\$126,191</b>	<b>\$27,212</b>	<b>\$1,025,917</b>	<b>\$348,140</b>	<b>\$119,996</b>	<b>\$14,255</b>	<b>\$650,802</b>

Note: The fair value hierarchies do not reflect cash and accruals thus totals differ from the Investment Summaries.

Note: Cash Equivalents include publicly traded investment grade corporate bonds; variable rate demand notes; government and agency bonds; mortgages; municipal bonds; Short Term Investment Funds (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.

# KRS DRAFT 12-4-2024

The investments measured at net asset value (NAV) are presented in the chart below:

Fair Value Measurements and Application (GASB 72) Pension													
As of June 30, 2024 (\$ in Thousands)													
Asset Type	KERS Nonhazardous				KERS Hazardous				SPRS				
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	
Specialty Credit <sup>(1)</sup>	\$475,127	\$118,104	Daily - Quarterly	90 Days	\$130,638	\$30,951	Daily - Quarterly	90 Days	\$65,060	\$11,938	Daily - Quarterly	90 Days	
Real Estate <sup>(2)</sup>	188,932	35,507			47,310	10,262			31,291	4,285			
Real Return <sup>(3)</sup>	76,480	41,533	Daily	30 - 60 Days	17,755	3,858	Daily	30 - 60 Days	15,266	10,741	Daily	30 - 60 Days	
Private Equity <sup>(4)</sup>	149,949	32,500			56,799	13,965			15,969	3,950			
Fixed Income <sup>(5)</sup>	41,214	-	Daily		4,334	-	Daily		6,254	-	Daily		
Non US Equity <sup>(5)</sup>	134,559	-	Daily		40,684	-	Daily		14,657	-	Daily		
Emerging Markets <sup>(5)</sup>	897	-	Daily		295	-	Daily		150	-	Daily		
US Equity <sup>(5)</sup>	6,972	-	Daily		2,517	-	Daily		1,291	-	Daily		
<b>Total Investments Measured at NAV</b>	<b>\$1,074,130</b>	<b>\$227,644</b>			<b>\$300,332</b>	<b>\$59,036</b>			<b>\$149,938</b>	<b>\$30,914</b>			

<sup>(1)</sup> This type includes 12 high yield specialty credit managers with multiple strategies. These managers may invest in U.S. or non-U.S. investment grade corporate credit, U.S. or non U.S. non-investment grade corporate credit, including both bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities and whole loans, asset-backed securities and emerging market debt.

<sup>(2)</sup> This type includes 12 real estate funds that invest primarily in U.S. commercial real estate; however, there is one manager who invests solely in non-U.S. commercial real estate. The fair value of the investments have been determined using the NAV per share of the Plan's ownership interest and in the partners' capital. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the funds will be liquidated over the next 7 to 10 years. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share of the Plan's ownership interest in the partners' capital. Due to restrictions in the contract, redemptions are not likely until the assets of the fund are liquidated.

<sup>(3)</sup> This type includes 15 real return managers that invest in multiple strategies such as infrastructure, agriculture, royalties, commodities, and natural resources. These investments are intended to provide both favorable risk-adjusted returns and correlation with inflation to help with the hedging of inflation for the broader plan. This group of managers also includes any hedge fund managers remaining in the portfolio which have all been terminated and are only awaiting payouts.

<sup>(4)</sup> This type includes 30 managers with multiple strategies. These investments cannot be redeemed. Instead, the investments are distributed throughout the life of the investment. Distributions are received through the liquidation of the underlying assets of the fund. It is expected that each fund will remain invested for a period of 5 to 10 years. It is probable that all of the investments in this type will be sold at an amount different from the NAV per share of the Plan's ownership interest in partners' capital. Therefore, the fair values of the investment in this asset class have been determined using recent observable transaction information.

<sup>(5)</sup> This type includes short-term commingled investment instruments issued by the US Government, Federal agencies, sponsored agencies or sponsored corporations.

**Fair Value Measurements and Application (GASB 72) Insurance  
As of June 30, 2024 (\$ in Thousands)**

Asset Type	KERS Nonhazardous			Total	KERS Hazardous			Total	SPRS			Total
	Level			Fair Value	Level			Fair Value	Level			Fair Value
	1	2	3		1	2	3		1	2	3	
<b>Public Equity</b>												
Emerging Markets	\$33,046	\$-	\$-	<b>\$33,046</b>	\$12,338	\$-	\$-	<b>\$12,338</b>	\$5,172	\$-	\$-	<b>\$5,172</b>
US Equity	430,420	-	-	<b>430,420</b>	173,241	-	-	<b>173,241</b>	69,627	-	-	<b>69,627</b>
Non-US Equity	199,688	-	-	<b>199,688</b>	74,552	-	-	<b>74,552</b>	31,251	-	-	<b>31,251</b>
<b>Total Public Equity</b>	<b>663,154</b>	<b>-</b>	<b>-</b>	<b>663,154</b>	<b>260,131</b>	<b>-</b>	<b>-</b>	<b>260,131</b>	<b>106,050</b>	<b>-</b>	<b>-</b>	<b>106,050</b>
<b>Fixed Income</b>												
Agencies	-	517	-	<b>517</b>	-	207	-	<b>207</b>	-	82	-	<b>82</b>
Asset-Backed	-	12,121	-	<b>12,121</b>	-	3,864	-	<b>3,864</b>	-	1,639	-	<b>1,639</b>
Bank & Finance	-	12,185	51,729	<b>63,914</b>	-	3,939	10,328	<b>14,267</b>	-	1,916	5,037	<b>6,953</b>
Cash & Cash Equivalent	775	36	-	<b>811</b>	310	1	-	<b>311</b>	122	8	-	<b>130</b>
Corporate	60,364	137,861	120	<b>198,345</b>	23,965	35,309	18	<b>59,292</b>	9,472	16,824	16	<b>26,312</b>
Healthcare	-	4,818	-	<b>4,818</b>	-	1,433	-	<b>1,433</b>	-	692	-	<b>692</b>
Insurance	-	945	-	<b>945</b>	-	316	-	<b>316</b>	-	148	-	<b>148</b>
Municipals	-	2,524	-	<b>2,524</b>	-	710	-	<b>710</b>	-	455	-	<b>455</b>
Sovereign Debt	-	5,627	-	<b>5,627</b>	-	631	-	<b>631</b>	-	1,200	-	<b>1,200</b>
US Government	45,739	36,645	-	<b>82,384</b>	18,062	14,390	-	<b>32,452</b>	7,240	5,817	-	<b>13,057</b>
<b>Total Fixed Income</b>	<b>106,878</b>	<b>213,279</b>	<b>51,849</b>	<b>372,006</b>	<b>42,337</b>	<b>60,800</b>	<b>10,346</b>	<b>113,483</b>	<b>16,834</b>	<b>28,781</b>	<b>5,053</b>	<b>50,668</b>
<b>Derivatives</b>												
Futures	(18)	-	-	<b>(18)</b>	(4)	-	-	<b>(4)</b>	(3)	-	-	<b>(3)</b>
Foreign Exchange	27	-	-	<b>27</b>	1	-	-	<b>1</b>	6	-	-	<b>6</b>
<b>Total Derivatives</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>(3)</b>	<b>-</b>	<b>-</b>	<b>(3)</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>3</b>
<b>Private Equity</b>												
<b>ETFs</b>	<b>35,412</b>			<b>35,412</b>				<b>-</b>				<b>-</b>
<b>Real Estate ETFs</b>	<b>19,511</b>			<b>19,511</b>				<b>-</b>				<b>-</b>
<b>Real Return</b>	<b>96,994</b>	<b>-</b>	<b>3</b>	<b>96,997</b>	<b>31,070</b>	<b>-</b>	<b>2</b>	<b>31,072</b>	<b>12,614</b>	<b>-</b>	<b>1</b>	<b>12,615</b>
<b>Total Investments at Fair Value</b>	<b>921,958</b>	<b>213,279</b>	<b>51,852</b>	<b>1,187,089</b>	<b>333,535</b>	<b>60,800</b>	<b>10,348</b>	<b>404,683</b>	<b>135,501</b>	<b>28,781</b>	<b>5,054</b>	<b>169,336</b>
<b>Investments Measured at NAV</b>												
Specialty Credit	-	-	-	<b>202,578</b>	-	-	-	<b>116,054</b>	-	-	-	<b>41,860</b>
Private Equity	-	-	-	<b>76,358</b>	-	-	-	<b>48,804</b>	-	-	-	<b>21,728</b>
Real Estate	-	-	-	<b>76,688</b>	-	-	-	<b>42,344</b>	-	-	-	<b>16,169</b>
Real Return	-	-	-	<b>39,456</b>	-	-	-	<b>14,727</b>	-	-	-	<b>5,976</b>
Fixed Income	-	-	-	<b>5,778</b>	-	-	-	<b>2,310</b>	-	-	-	<b>909</b>
Non US Equity	-	-	-	<b>49,280</b>	-	-	-	<b>26,088</b>	-	-	-	<b>9,035</b>
Emerging Markets	-	-	-	<b>513</b>	-	-	-	<b>192</b>	-	-	-	<b>80</b>
US Equity	-	-	-	<b>4,271</b>	-	-	-	<b>1,754</b>	-	-	-	<b>709</b>
<b>Total Investments Measured at NAV</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>454,922</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>252,273</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>96,466</b>
<b>Cash and Accruals</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35,689</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10,478</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,354</b>
<b>Total Investments</b>	<b>\$921,958</b>	<b>\$213,279</b>	<b>\$51,852</b>	<b>\$1,677,700</b>	<b>\$333,535</b>	<b>\$60,800</b>	<b>\$10,348</b>	<b>\$667,434</b>	<b>\$135,501</b>	<b>\$28,781</b>	<b>\$5,054</b>	<b>\$271,156</b>

Note: The fair value hierarchies do not reflect cash and accruals thus totals differ from the Investment Summaries.

Note: Cash Equivalents include publicly traded investment grade corporate bonds; variable rate demand notes; government and agency bonds; mortgages; municipal bonds; Short Term Investment Funds (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.



# KRS DRAFT 12-4-2024

The investments measured at net asset value (NAV) are presented in the chart below:

Fair Value Measurements and Application (GASB 72) Insurance													
As of June 30, 2024 (\$ in Thousands)													
Asset Type	KERS Nonhazardous				KERS Hazardous				SPRS				
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period	Redemption Notice Period
Specialty Credit <sup>(1)</sup>	\$202,578	\$49,943	Daily - Quarterly	90 Days	\$116,054	\$14,100	Daily - Quarterly	90 Days	\$41,860	\$7,062	Daily - Quarterly	90 Days	90 Days
Real Estate <sup>(2)</sup>	76,688	11,870			42,344	8,868			16,169	3,389			
Real Return <sup>(3)</sup>	39,456	23,861	Daily	30 - 60 Days	14,727	2,969	Daily	30 - 60 Days	5,976	1,767	Daily	30 - 60 Days	30 - 60 Days
Private Equity <sup>(4)</sup>	76,358	17,996			48,804	11,132			21,728	5,232			
Fixed Income <sup>(5)</sup>	5,778	-	Daily		2,310	-	Daily		909	-	Daily		
Non US Equity <sup>(5)</sup>	49,280	-	Daily		26,088	-	Daily		9,035	-	Daily		
Emerging Markets <sup>(5)</sup>	513	-	Daily		192	-	Daily		80	-	Daily		
US Equity <sup>(5)</sup>	4,271	-	Daily		1,754	-	Daily		709	-	Daily		
<b>Total Investments Measured at NAV</b>	<b>\$454,922</b>	<b>\$103,670</b>			<b>\$252,273</b>	<b>\$37,069</b>			<b>\$96,466</b>	<b>\$17,450</b>			

<sup>(1)</sup> This type includes 12 high yield specialty credit managers with multiple strategies. These managers may invest in U.S. or non-U.S. investment grade corporate credit, U.S. or non U.S. non-investment grade corporate credit, including both bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities and whole loans, asset-backed securities and emerging market debt.

<sup>(2)</sup> This type includes 12 real estate funds that invest primarily in U.S. commercial real estate; however, there is one manager who invests solely in non-U.S. commercial real estate. The fair value of the investments have been determined using the NAV per share of the Plan's ownership interest and in the partners' capital. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the funds will be liquidated over the next 7 to 10 years. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share of the Plan's ownership interest in the partners' capital. Due to restrictions in the contract, redemptions are not likely until the assets of the fund are liquidated.

<sup>(3)</sup> This type includes 15 real return managers that invest in multiple strategies such as infrastructure, agriculture, royalties, commodities, and natural resources. These investments are intended to provide both favorable risk-adjusted returns and correlation with inflation to help with the hedging of inflation for the broader plan. This group of managers also includes any hedge fund managers remaining in the portfolio which have all been terminated and are only awaiting payouts.

<sup>(4)</sup> This type includes 33 managers with multiple strategies. These investments cannot be redeemed. Instead, the investments are distributed throughout the life of the investment. Distributions are received through the liquidation of the underlying assets of the fund. It is expected that each fund will remain invested for a period of 5 to 10 years. It is probable that all of the investments in this type will be sold at an amount different from the NAV per share of the Plan's ownership interest in partners' capital. Therefore, the fair values of the investment in this asset class have been determined using recent observable transaction information.

<sup>(5)</sup> This type includes short-term commingled investment instruments issued by the US Government, Federal agencies, sponsored agencies or sponsored corporations.

## Money-Weighted Rates of Return

In accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans*, and GASB Statement No. 74, *Financial Reporting for Post-Employment Benefit Plans Other than Pension Plans*, KRS provides this additional disclosure regarding its money-weighted rate of return for the period of June 30, 2024. The money-weighted rate of return is a method of calculating period-by-period returns on the Pension and Insurance Plans' investments that adjusts for the changing amounts actually invested. For the purposes of this statement, money-weighted rate of return is calculated as the internal rate of return on investments, net of investment expenses, then adjusted for the changing amounts actually invested.

Money-Weighted Rates of Return As of June 30, 2024							
	Pension			Insurance			
	KERS Nonhazardous	KERS Hazardous		KERS Nonhazardous	KERS Hazardous		
<b>2024</b>	9.58%	11.17%	9.64%	11.14%	11.12%	11.01%	

## Note E. Securities Lending Transactions

Kentucky Revised Statutes 61.650 and 386.020(2) permit the Systems to lend their securities to broker-dealers and other entities. KRS utilizes a securities lending program to temporarily lend securities to qualified agents in exchange for 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. The types of securities lent include U.S. Treasuries, U.S. Agencies, U.S. Corporate Bonds, U.S. Equities, Global Fixed Income Securities, and Global Equities Securities. Securities Lending transactions are accounted for in accordance with GASB 28. The net earnings for KERS (Pension and Insurance combined) and SPRS (Pension and Insurance combined) was \$0.8 million and \$0.1 million, respectively.

The IPS does not address any restrictions on the amount of loans that can be made. As of June 30, 2024, KRS had no credit risk exposure to borrowers because the collateral amounts received exceeded the amounts out on loan. The contracts with the custodial bank 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. BNY Mellon invests cash collateral as permitted by state statute and KRS Board policy. The agent, BNY Mellon, 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 BNY Mellon, emphasizing capital preservation, liquidity, and credit quality.

Cash collateral is invested in guaranteed, short-term obligations of the U.S. government, select government agencies and repurchase agreements with qualified agents. KRS cannot pledge or sell collateral securities received unless the borrower defaults. BNY Mellon as the lending agent also indemnifies KRS from any financial loss associated with a borrower's default and collateral inadequacy.

As of June 30, 2024, the average days to maturity for loans was one day, and the weighted average investment maturity of cash collateral investments was one day. The trusts had no credit risk exposure to borrowers because the amounts owed to borrowers exceeded the amounts the borrowers owed the trust, and no losses resulted during the period.

Security lending programs can entail interest rate risk and credit risk. KRS minimizes interest rate risk by limiting the term of cash collateral investments to several days. The credit risk is controlled by investing cash collateral in securities with qualities similar to the credit worthiness of lent securities.

As of June 30, 2024, the cash collateral received for the securities on loan for the KERS and SPRS Plans was \$183.2 million and \$22.4 million, respectively. The securities non-cash collateral received a total of \$78.5 million and \$9.6 million, respectively. The collateral volume of the total underlying securities was \$261.7 million for KERS and \$32.0 million for SPRS.

### Securities Lending Cash Collateral As of June 30, 2024 (\$ in Thousands)

KERS Nonhazardous		KERS Hazardous		SPRS		KRS Total 2023
Pension	Insurance	Pension	Insurance	Pension	Insurance	
\$109,246	\$33,811	\$26,629	\$13,516	\$16,923	\$5,449	\$205,574

## Note F. Risk of Loss

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KRS and KPPA are 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 Office of Claims and Appeals is vested with full power and authority to investigate, hear proof, and 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 \$250,000 for a single claim and \$400,000 in aggregate per occurrence. Awards and a pro rata share of the operating cost of the Office of Claims and Appeals are paid from the fund of the agency having a claim or claims before the Office of Claims and Appeals.

Claims against the KRS Board and the KPPA Board, or any of its staff as a result of an actual or alleged breach of fiduciary duty, are self-insured effective May 26, 2019.

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. All medical expenses related to a work injury or illness are paid based upon appropriate statutory and regulatory reductions, 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

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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 for the Systems as a result of the contingent liabilities. KRS is involved in other litigation; therefore, please see Note K. Litigation, for further information.

## Note H. Income Tax Status

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The Internal Revenue Service (IRS) has ruled that KERS and SPRS qualify under Section 401(a) of the Internal Revenue Code are, generally, not subject to tax. KERS and SPRS are subject to income tax on any unrelated business income (UBI).

## Note I. Financial Report for (GASB 67) Pension

### Plans and (GASB 74) Postemployment Benefit Plans

The following details actuarial information and assumptions utilized in determining the unfunded (overfunded) actuarial accrued liabilities for KRS. Please note that calculations for Total Pension Liability (TPL), net fiduciary position, Net Pension Liability (NPL), total OPEB liability, net OPEB fiduciary position, and Net OPEB Liability (NOL) are reported in the Plans' Required Supplementary Information (RSI) beginning on page 64 are based on June 30, 2023, actuarial valuations, rolled forward to June 30, 2024. The prior year valuations are used as the basis for the roll forward method and are applied to complete the current year pension and OPEB valuations as of the measurement date, June 30, 2024, in accordance with GASB *Statement No. 67*, paragraph 37, and GASB *Statement No. 74*, paragraph 41.

#### Financial Report for Pension Plan (GASB 67)

##### Basis of Calculations

The Systems' actuary Gabriel, Roeder, Smith & Co. (GRS) completed reports by plan in compliance with GASB *Statement No. 67 Financial Reporting for Pension Plans*. The TPL, NPL, and sensitivity information are based on an actuarial valuation date of June 30, 2023. The TPL was rolled forward from the valuation date to the Plans' fiscal year ended June 30, 2024, using generally accepted actuarial principles. Information disclosed for years prior to June 30, 2017, were prepared by the prior actuary. GRS will provide separate reports at a later date with additional accounting information determined in accordance with GASB *Statement No. 68, Accounting and Financial Reporting for Pensions*.

##### Assumptions

Below is a summary of the principal assumptions used for the June 30, 2023, actuarial valuation:

- Investment Return - 6.25% for KERS Hazardous, 5.25% for KERS Nonhazardous and SPRS.
- Inflation - 2.50% for all plans.
- Salary Increases - 3.30% to 15.30% for KERS Nonhazardous, 3.55% to 20.05% for KERS Hazardous, and 3.55% to 16.05% for SPRS, varies by service.
- Payroll Growth - 0% for all plans.
- Mortality - System-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023.

##### Plan Provisions

There have been no assumption, method or plan provision changes that would materially impact the total pension liability since June 30, 2023. It is our opinion that these procedures for determining the information contained in these reports are reasonable, appropriate, and comply with applicable requirements under GASB No. 67.

##### Discount Rate

Single discount rates of 5.25% for the KERS Nonhazardous plan, 6.25% for the KERS Hazardous plan, and 5.25% for SPRS were used to measure the total pension liability for the fiscal year ended June 30, 2024. These single discount rates were based on the expected rate of return on pension plan investments for each plan. Based on the stated assumptions and the projection of cash flows as of each fiscal year ended, the pension plans' fiduciary net position and future contributions were projected to be sufficient to finance all the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability for each plan.

The projection of cash flows used to determine the single discount rate must include an assumption regarding actual employer contributions made each future year. Future contributions are projected assuming that the entire actuarially determined employer contribution is received by each plan each future year, calculated in accordance with the current funding policy.

**Additional health care contributions (IRC 401(h) Subaccount)**

Based on guidance issued by GASB in connection with GASB Statement No. 74, the 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount is considered an OPEB asset. As a result, the reported fiduciary net positions as of June 30, 2017, and later are net of the 401(h) asset balance.

**Additional Disclosures**

These reports are based upon information furnished to us by the Kentucky Public Pensions Authority (KPPA), which includes benefit provisions, membership information, and financial data. We did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2023," for additional discussion of the nature of the actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. These reports should be considered together as a complete report for the fiscal year ended June 30, 2024.

**Financial Reporting for Postemployment Benefit Plans (GASB 74)**

GRS completed reports by plan in compliance with GASB *Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other than Pension Plans* for the fiscal year ended June 30, 2024. GRS will provide separate reports at a later date with additional accounting information determined in accordance with GASB *Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

**Basis of Calculations**

The total OPEB liability, net OPEB liability (NOL), and sensitivity information are based on an actuarial valuation date of June 30, 2023. The total OPEB liability was rolled forward from the valuation date to the plan's fiscal year ended June 30, 2024, using generally accepted actuarial principles.

**Assumptions**

The discount rates used to calculate the total OPEB liability increased for each plan since the prior year (see further discussion on the calculation of the single discount rates later in this section). The assumed increase in future health care cost, or trend assumption, was reviewed during the June 30, 2023, valuation process and was updated to better reflect the plan's anticipated long-term healthcare costs increases. In general, the updated assumption is assuming higher future increases in pre-Medicare healthcare costs.

The Total OPEB Liability as of June 30, 2024, is determined using these updated assumptions. It is GRS' opinion that these procedures are reasonable and appropriate, and comply with applicable requirements under GASB No. 74.

Below is a summary of the principal assumptions used for the June 30, 2023, actuarial valuation:

- Investment Return - 6.50% for all plans.
- Inflation - 2.50% for all plans.
- Salary Increases - 3.30% to 15.30% for KERS Nonhazardous, 3.55% to 20.05% for KERS Hazardous, 3.55% to 16.05% for SPRS, varies by service.
- Payroll Growth - 0.00% for all plans.
- Mortality - System-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023.
- Health Care Trend Rates:
  - Pre-65 - Initial trend starting at 6.80% on January 1, 2025, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2024 premiums were known at the time of the valuation and were incorporated into the liability measurement.
  - Post-65 - Initial trend starting at 8.50% on January 1, 2025, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 11 years. The 2024 premiums were known at the time of the valuation and were incorporated into the liability measurement.

**Plan Provisions**

There have been no plan provision changes that would materially impact the total OPEB liability since June 30, 2023.

**Implicit Employer Subsidy for non-Medicare retirees**

The fully-insured premiums paid for the Kentucky Employees' Health Plan are blended rates based on the combined experience of active and retired members. Because the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees. GASB No. 74 requires that the liability associated with this implicit subsidy be included in the calculation of the Total OPEB Liability.

**Discount Rates**

The following single discount rates were used to measure the total OPEB liability for the fiscal year ended June 30, 2024.

PLAN	FISCAL YEAR 2024	FISCAL YEAR 2023	CHANGE IN RATE
KERS Nonhazardous	6.00%	5.94%	0.06%
KERS Hazardous	5.99%	5.94%	0.05%
SPRS	6.08%	6.02%	0.06%

The single discount rates are based on the expected rate of return on OPEB plan investments of 6.50% and a municipal bond rate of 3.97%, as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2024.

Based on the stated assumptions and the projection of cash flows as of each fiscal year ended, the plan's fiduciary net position and future contributions were projected to be sufficient to finance the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on insurance plan investments was applied to all periods of the projected benefit payments paid from the retirement system. However, the cost associated with the implicit employer subsidy is not currently being included in the calculation of the plan's actuarial determined contributions, and it is our understanding that any cost associated with the implicit subsidy will not be paid out of the plan's trust. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy.

The projection of cash flows used to determine the single discount rate must include an assumption regarding actual employer contributions made each future year. Future contributions are projected assuming that the entire actuarially determined employer contribution is received by each plan each future year, calculated in accordance with the current funding policy.

**Additional health care contributions (IRC 401(h) Subaccount)**

Based on guidance issued by GASB in connection with GASB Statement No. 74, the 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount is considered an OPEB asset. As a result, the reported fiduciary net position includes these 401(h) assets. Additionally, these member contributions and associated investment income and administrative expenses are included in the reconciliation of the fiduciary net position.

**Additional Disclosures<sup>1</sup>**

The reports are based upon information furnished to GRS by the KPPA, which includes benefit provisions, membership information, and financial data. GRS did not audit this data and information, but GRS applied a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2023," for additional discussion of the nature of the actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. These reports should be considered together as a complete report for fiscal year ended June 30, 2024.

<sup>1</sup> Note: Data and information regarding GASB 67 and GASB 74 reporting was provided by GRS Retirement Consulting.

**Target Asset Allocation**

The long-term (10-year) expected rates of return were determined by using a building block method in which best estimated ranges of expected future real rates of return were developed for each asset class. The ranges were combined by weighting the expected future real rate of return by the target asset allocation percentage. The target allocation and best estimates of arithmetic real rate of return for each major asset class are summarized in the tables on the following page.

<b>Target Asset Allocation - Pension</b>			
<b>As of June 30, 2024</b>			
<b>Asset Class</b>	<b>KERS Nonhazardous and SPRS Pension Plans Target Allocation</b>	<b>KERS Hazardous and KRS Insurance Plans Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
<b>Equity</b>			
Public Equity	40.00%	30.00%	4.15%
Private Equity	8.00%	6.00%	9.10%
<b>Fixed Income</b>			
Core Fixed Income	10.00%	27.00%	2.85%
Specialty Credit	25.00%	20.00%	3.82%
Cash	2.00%	2.00%	1.70%
<b>Inflation Protected</b>			
Real Estate	7.00%	5.00%	4.90%
Real Return	8.00%	10.00%	5.35%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	

*NOTE: Minor deviations are expected between the actuarial assumed rate of return and the expected rate of return reported in the above charts. The actuarial assumed rates of return are based on a review of economic assumptions completed periodically as warranted but not longer than every 2 years; whereas, the expected rate of return is calculated annually for GASB purposes by taking the current asset allocation and applying the most relevant long term market expectations (March 2024) for each asset class.*



**Sensitivity of the NPL to Changes in the Discount Rate Fiscal Year 2024**  
**As of June 30, 2024 (\$ in Thousands)**

	KERS		SPRS
	Nonhazardous	Hazardous	
	<b>Current 5.25%</b>	<b>Current 6.25%</b>	<b>Current 5.25%</b>
1% Decrease	\$13,948,313	\$541,741	\$587,581
Current Discount Rate	12,049,666	373,761	449,842
1% Increase	\$10,476,712	\$238,565	\$336,576

**Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate**
**As of June 30, 2024 (\$ in Thousands)**

	KERS		SPRS
	Nonhazardous	Hazardous	
	<b>Single 6.00%</b>	<b>Single 5.99%</b>	<b>Single 6.08%</b>
<b>Sensitivity of the Net OPEB Liability to Changes in the Discount Rate</b>			
1% Decrease	\$999,036	\$(181,350)	\$34,067
Single Discount Rate	723,049	(235,131)	3,642
1% Increase	\$489,746	\$(279,694)	\$(21,916)
<b>Sensitivity of the Net OPEB Liability to Changes in the Current Healthcare Cost Trend Rate</b>			
1% Decrease	\$536,314	\$(266,478)	\$(18,176)
Current Healthcare Cost Trend Rate	723,049	(235,131)	3,642
1% Increase	\$939,316	\$(198,505)	\$29,059

**Development of Single Discount Rate for OPEB**
**As of June 30, 2024**

	KERS		SPRS
	Nonhazardous	Hazardous	
<b>2024</b>			
Single Discount Rate	6.00%	5.99%	6.08%
Long-Term Expected Rate of Return	6.50%	6.50%	6.50%
Long-Term Municipal Bond Rate <sup>(1)</sup>	3.97%	3.97%	3.97%

Note: 1. Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2024.

**Schedule of Employers' NPL - KERS Nonhazardous**
**As of June 30, 2024 (\$ in Thousands)**

Total Pension Liability (TPL)	\$16,273,602
Plan Fiduciary Net Position	\$4,223,936
Net Pension Liability	\$12,049,666
Ratio of Plan Fiduciary Net Position to TPL	25.96%
Covered Payroll <sup>(1)</sup>	\$1,912,421
Net Pension Liability as a Percentage of Covered Payroll	630.07%

**Schedule of Employers' NPL - KERS Hazardous  
As of June 30, 2024 (\$ in Thousands)**

Total Pension Liability (TPL)	\$1,393,651
Plan Fiduciary Net Position	\$1,019,890
Net Pension Liability	\$373,761
Ratio of Plan Fiduciary Net Position to TPL	73.18%
Covered Payroll <sup>(1)</sup>	\$279,218
Net Pension Liability as a Percentage of Covered Payroll	133.86%

**Schedule of Employer's NPL - SPRS  
As of June 30, 2024 (\$ in Thousands)**

Total Pension Liability (TPL)	\$1,101,632
Plan Fiduciary Net Position	\$651,790
Net Pension Liability	\$449,842
Ratio of Plan Fiduciary Net Position to TPL	59.17%
Covered Payroll <sup>(1)</sup>	\$71,964
Net Pension Liability as a Percentage of Covered Payroll	625.09%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

**Schedule of the Employers' Net OPEB Liability  
As of June 30, 2024 (\$ in Thousands)**

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll	Net OPEB Liability as a Percentage of Covered Payroll
KERS Nonhazardous <sup>(1)</sup>	\$2,488,778	\$1,765,729	\$723,049	70.95%	\$1,923,825	37.58%
KERS Hazardous <sup>(2)</sup>	442,817	677,948	(235,131)	153.10%	279,218	(84.21)%
SPRS Plan <sup>(1)</sup>	\$277,159	\$273,517	\$3,642	98.69%	\$71,992	5.06%

<sup>(1)</sup> Covered Payroll is based on derived compensation using the provided employer contribution information.

<sup>(2)</sup> Covered Payroll is based on derived compensation using the provided employer contribution information. For 2021, 2022, 2023, and 2024, derived compensation based on pension contribution information, as there were no required employer contributions for the Insurance Plans for FYE 2021, FYE 2022, FYE 2023, and FYE 2024.

## Note J. Legislation

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### 2024 Regular Session

The 2024 Regular Session of the Kentucky General Assembly adjourned on Monday, April 15, 2024. Highlights from the Session include the following:

#### **BILLS OF DIRECT INTEREST TO KRS MEMBERS AND RETIREES**

##### **House Bill 99: The KPPA Housekeeping bill**

**House Bill 99** amends various sections of Kentucky Revised Statutes Chapters 16, 61, and 78 to make technical and housekeeping changes relating to administration of the systems, including renaming the position of internal auditor to Chief Auditor, providing that the death benefit of \$5,000 payable to a beneficiary of the member is not subject to garnishment, unless the beneficiary is the member's estate or there is an overpayment of benefits or outstanding balance owed to the system, makes modifications to the initial disability application review process, and other technical changes. "Housekeeping bill" is a slang term for typically noncontroversial legislation that "cleans up" statutes by clarifying their language or otherwise updating their content to align with changes in relevant federal or state law.

##### **House Bill 1: The "Rainy Day Fund" Appropriations bill**

**House Bill 1** allocates money from the Budget Reserve Trust Fund Account, commonly known as the state's "Rainy Day Fund," to be applied to the unfunded liability of the Kentucky Employees Retirement System (KERS) Nonhazardous Pension Plan and the State Police Retirement System (SPRS) (\$50 million and \$25 million each fiscal year, 2025 and 2026 respectively).

##### **House Bill 6: The State Executive Branch Budget bill**

**House Bill 6** is the State/Executive Branch budget bill for the biennium beginning July 1, 2024, through June 30, 2026. The budget includes the full actuarially determined employer contribution for the KERS and SPRS plans, and it allocates an additional \$250 million in each fiscal year to be paid toward the unfunded liability of the KERS Nonhazardous Pension Plan.

Neither House Bill 1 nor House Bill 6 contain a cost-of-living adjustment (COLA) or other form of supplemental payment (such as a "13th check") for retirees. This means there were no budget bills that contained a COLA or other form of supplemental payment for retirees in any of the KRS systems administered by KPPA.

##### **House Bill 277: Transfer Louisville and Jefferson County Public Defender Corporation employees to KERS**

**House Bill 277:** transfers employees of the Louisville and Jefferson County Public Defender Corporation to the Department of Public Advocacy (DPA) in the state personnel system, effective July 1, 2024. Employees that transfer to DPA will participate in KERS and their retirement tier will be determined based on the earlier of the membership date in a state-administered retirement system or the employment begin date with the Corporation.

##### **Senate Bill 299: Move the Horse Racing Commission to a quasi-governmental agency called the Kentucky Horse Racing and Gaming Corporation (HRGC) and abolish the Charitable Gaming Commission and merge it under the HRGC**

**Senate Bill 299** moves the Horse Racing Commission to a quasi-agency called the Kentucky Horse Racing and Gaming Corporation (HRGC), effective July 1, 2024. The following year, on July 1, 2025, the Charitable Gaming Commission will be abolished and merged under the HRGC. All eligible employees of the corporation will participate in the Kentucky Employees Retirement System (KERS) effective July 1, 2024. Current Horse Racing Commission employees will continue to participate in KERS under the new KHRGC, without interruption.

## House Bill 635: Actuarial analysis assumptions and methods

**House Bill 635** implements additional reporting requirements for actuarial analyses and expands the required supporting documentation and explanations of findings for fiscal and corrections impact statements.

## State Senate Confirms Gubernatorial Appointments to the KRS Board

State law requires that gubernatorial appointments to the KRS Board of Trustees receive Senate approval. On April 15, three (3) Senate Resolutions confirming Governor Andy Beshear's recent appointments to the KRS Board were unanimously adopted by a vote of 38-0:

1. **Senate Resolution 309**, sponsored by Senator Julie Raque Adams, confirmed the appointment of Mary G. Eaves to the KRS Board of Trustees for a term expiring June 21, 2027;
2. **Senate Resolution 310**, sponsored by Senator Julie Raque Adams, confirmed the reappointment of Caswell Prewitt Lane to the KRS Board of Trustees for a term expiring June 17, 2027; and
3. **Senate Resolution 313**, sponsored by Senator Julie Raque Adams, confirmed the reappointment of Pamela Fetting Thompson to the KRS Board of Trustees for a term expiring June 17, 2027.

The Resolutions only required Senate confirmation and did not need to be adopted in the House.

## Note K. Litigation

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### Seven Counties

Seven Counties Services, Inc. (Seven Counties) filed for Chapter 11 bankruptcy in the United States Bankruptcy Court for the Western District of Kentucky (the Bankruptcy Court) in April 2013. Seven Counties provides mental health services for the Cabinet for Health and Family Services for the greater Louisville, Kentucky area and surrounding counties. Seven Counties participated in KERS for approximately twenty-five years. Seven Counties identified KERS as a creditor with a primary objective of discharging its continuing obligation to remit retirement contributions for approximately 1,300 employees and to terminate its participation in KERS. If Seven Counties is successful in discharging its obligations to KERS, the estimated member pension and insurance actuarial accrued liability is in the range of \$145 to \$150 million.

KERS opposed Seven Counties' attempt to discharge its obligations and terminate its participation. KERS asserted that Seven Counties is a Governmental Unit properly participating in KERS by Executive Order issued in 1978 and thus ineligible for Chapter 11 relief. Consequently, Seven Counties would remain statutorily obligated to continue participation and remit contributions. On May 30, 2014, the Bankruptcy Court held that Seven Counties was not a Governmental Unit and could move forward with its Chapter 11 bankruptcy case. The Bankruptcy Court further held that Seven Counties' statutory obligation to participate in and remit contributions to KERS was a "contract" eligible for rejection. KRS appealed this decision.

On August 24, 2018, the U.S. Court of Appeals for the Sixth Circuit (the Sixth Circuit) issued a two to one Opinion affirming the decision that Seven Counties is eligible to file for bankruptcy under Chapter 11. However, the Sixth Circuit went on to state, "lacking state court precedent characterizing the nature of the relationship between Seven Counties and KERS, we certify that question to the Kentucky Supreme Court." KERS filed a petition to have the Opinion Reheard En Banc by the entire Sixth Circuit. On October 5, 2018, the Sixth Circuit issued an order holding the petition in abeyance pending a response from the Kentucky Supreme Court on the certified question of law. On November 1, 2018, the Supreme Court of Kentucky issued an Order granting certification of the question. The certified question of law was briefed by the parties and oral arguments were held before the Supreme Court of Kentucky on March 6, 2019. On August 29, 2019, the Supreme Court of Kentucky ruled that Seven Counties' participation in and its contributions to KERS are based on a statutory obligation. The Supreme Court of Kentucky's ruling was forwarded to the Sixth Circuit for further consideration.

On July 20, 2020, the Sixth Circuit Court of Appeals issued an Opinion stating that they affirmed their previous determination that Seven Counties was eligible to file a Chapter 11 bankruptcy case. The Sixth Circuit also reversed the conclusion that Seven Counties can reject its obligation to participate as an executory contract and that Seven Counties need not maintain its statutory contribution obligation during the pendency of the bankruptcy. The Sixth Circuit dismissed Seven Counties' cross appeal and remanded the case for further proceedings consistent with the opinion. KERS again filed a petition to have the Opinion regarding Seven Counties' ability to file a Chapter 11 bankruptcy Reheard En Banc by the entire Sixth Circuit. This petition was denied in an Order dated September 11, 2020. The case was remanded back to the Bankruptcy Court.

The parties were able to stipulate to the principal amount of Seven Counties unpaid employer contributions for the post-petition time-frame of April 6, 2014, through February 5, 2015. A limited hearing occurred in February 2022 regarding whether interest is applicable to the stipulated amount. The Bankruptcy Court entered an order that set the amount of the contributions, but did not order Seven Counties to pay that amount. The order was silent regarding the application of interest. Both Seven Counties and KERS appealed the Bankruptcy Court's order to the United States District Court where it will be joined with the pending appeal of the confirmation of Seven Counties' reorganization plan.

The United States District Court refused to hear the appeals stating that the Bankruptcy Court's order was not final and appealable. That left KERS in a position where no relief was possible; the Bankruptcy Court would not enter an order requiring payment, and the District Court would not hear an appeal. This forced KERS to once again appeal the United States Court of Appeals for the Sixth Circuit. The matter is now fully briefed before that court and parties are awaiting oral arguments.

The Sixth Circuit Court of Appeals agreed with the District Court, ruling that the Bankruptcy Court order was not final and appealable. The Sixth Circuit did however instruct the Bankruptcy Court that it had construed the 2020 ruling too narrowly and returned the case to the Bankruptcy Court for "expeditious resolution of the remaining issues." KRS has moved the Bankruptcy Court to resolve the issue of ordering Seven Counties to pay the stipulated amount and to allow KRS to pursue collecting contributions from February 2015 forward outside of the Bankruptcy Court. These motions are pending.

**Mayberry**

In December 2017, certain members and beneficiaries of the Kentucky Retirement Systems filed litigation (Mayberry et al v. KKR et al) against certain Hedge Fund Sellers, Investment, Actuarial and Fiduciary Advisors, Annual Report Certifiers, and certain (past and present) Kentucky Retirement Systems' Trustees and Officers in Franklin Circuit Court. The litigation alleges (in summary) that actuarial assumptions, fees, statements and disclosures harmed the financial status of the Retirement Systems. While Kentucky Retirement Systems is designated a "Defendant," that designation is a technical formality in so much as Kentucky Retirement Systems is a "nominal defendant." On April 20, 2018, the Kentucky Retirement Systems and the plaintiffs filed a joint notice with the Court advising that Kentucky Retirement Systems does not intend to challenge its status as a "nominal defendant." Since then, the Franklin Circuit Court ruled on various Defendants' Motions to Dismiss, denying nearly all of them. On January 10, 2019, KKR, Henry Kravis and George Roberts (collectively, "KKR Parties") amended their Answer to assert cross claims against Kentucky Retirement Systems. Certain Officer and Trustee Defendants appealed the denial of their Motion to Dismiss on immunity grounds to the Court of Appeals, and that appeal was transferred to the Kentucky Supreme Court. The hedge fund defendants filed a Petition for Writ of Prohibition in the Court of Appeals, arguing the Plaintiffs lacked standing to bring the action. That Petition was granted on April 23, 2019. Plaintiffs promptly appealed the Court of Appeals' decision to the Supreme Court of Kentucky. On July 9, 2020, the Supreme Court of Kentucky issued an Opinion stating that the plaintiffs, as beneficiaries of a defined-benefit plan who have received all of their vested benefits so far and are legally entitled to receive their benefits for the rest of their lives, do not have a concrete stake in this case and therefore lack standing to bring this claim. The case was remanded to the circuit court with directions to dismiss the complaint. Thereafter, plaintiffs filed a motion seeking to amend their complaint to add parties (Tier 3 members of the Retirement Systems) and claims that would purportedly correct the standing defect identified by the Supreme Court of Kentucky. Furthermore, the Attorney General of the Commonwealth of Kentucky sought leave to intervene in this action through a motion filed July 20, 2020, and an Intervening Complaint on July 22, 2020. The Defendants filed motions seeking to have the case dismissed. On December 28, 2020, Franklin Circuit Court issued an Order dismissing the Complaint filed by the Plaintiffs, denied Plaintiffs' Motion to file a Second Amended Complaint, and granted the Office of the Attorney General's Motion to Intervene. A variety of additional motions and pleadings were filed, including an original action by the Tier 3 Group. This original action is still in the initial stages and is pending with Franklin Circuit Court. (Tia Taylor, et al. v KKR & Co. L.P., et al.) On January 12, 2021, Franklin Circuit Court issued a scheduling Order granting the Attorney General until February 1, 2021 to file an Amended Intervening Complaint, granting the Tier 3 Group until February 11, 2021 to file a Motion to Intervene in this action. Additional extension orders were granted for the Attorney General intervention. The Attorney General filed an Amended Complaint on May 24, 2021. On June 14, 2021, the Tier 3 Group's Motion to Intervene in the Attorney General action was denied. In the spring of 2022, Franklin Circuit Judge Phillip Shepherd recused and this matter was assigned to Judge Thomas Wingate.

Following the Attorney General's intervention, the Defendant's challenged the intervention as beyond the scope of the remand from the Supreme Court in July of 2020. Franklin Circuit Court denied that motion and the matter was on appeal when this case was assigned to Judge Thomas Wingate. Judge Wingate placed the matter in abeyance pending a decision on whether the Attorney General's intervention was proper. The Court of Appeals held that the Attorney General should not have been allowed to intervene and the Attorney General is currently seeking Discretionary Review by the Supreme Court.

Simultaneously with his intervention, the Attorney General filed a separate, stand-alone case with an identical complaint to protect against the possibility that his intervention would be deemed improper. The Defendants filed motions to dismiss the Attorney General's stand-alone case based on various legal theories. Franklin Circuit Court denied the majority of these motions but granted the motions to dismiss on behalf of R.V. Kuhns and Cavanaugh Macdonald, KRS' actuary and investment consultant during the relevant timeframe. This case is still proceeding.

A number of related cases have also developed based on issues raised in the above referenced Mayberry action. There has been an action filed by a number of the Trustees and Officers named in Mayberry seeking reimbursement by Kentucky Retirement Systems of legal fees. Kentucky Retirement Systems has also filed an action against Hallmark Specialty Insurance seeking a declaratory judgment that Hallmark has a duty to defend and indemnify Kentucky Retirement Systems in the Mayberry action. Two of the hedge fund Defendants in the Mayberry action have also filed an action in the United States District Court for the Eastern District of Kentucky naming individual members of the former KRS Board of Trustees as Defendants. This action is seeking a judgment declaring that the Trustees violated Plaintiffs' right to due process as well as an award of costs and attorneys' fees. Three actions have also been filed in Delaware regarding the Mayberry action. One filed by Prisma Capital Partners and one filed by Blackstone Alternative Asset Management allege breaches of warranties, representations and more relating to the Subscription Agreements signed by the Kentucky Retirement Systems. The third was filed by Prisma Capital Partners against the Daniel Boone Fund, LLC. Additionally, an action has been filed by PAAMCO against Kentucky Retirement Systems in California also alleging breaches of warranties, representations and more relating to the Subscription Agreements signed by the Kentucky Retirement Systems. Finally, on August 2, 2021, Blackstone Alternative Asset Management, L.P. (BAAM) filed an action against the Kentucky Public Pensions Authority, the Board of Trustees of the Kentucky Retirement Systems, the Board of Trustees of the County Employees Retirement System, the Kentucky Retirement Systems Insurance Fund, and the Kentucky Retirement Systems Pension Fund

(collectively “Defendants”) for breach of contract. The Defendants filed a Motion to Dismiss on September 8, 2021. The last of these additional actions, the suit filed by BAAM, was dismissed by Franklin Circuit Court. The Court of Appeals upheld the dismissal, and BAAM is seeking Discretionary Review by the Supreme Court. The rest of these cases remain active in various stages of litigation.

### **Bayhills**

In 2018, Kentucky Retirement Systems sued Bayhills for breach of contract seeking to terminate Bayhills as investment managers. Kentucky Retirement Systems filed the suit in Franklin Circuit Court, but Bayhills removed it to federal district court. Kentucky Retirement Systems successfully had the case remanded back to state court. The case is now pending before Franklin Circuit Court. The Court entered an injunction preventing Bayhills from paying themselves management and other fees during the litigation. Bayhills has appealed this ruling to the Court of Appeals. The Court of Appeals and the Kentucky Supreme Court denied Bayhills their requested relief on appeal. Litigation is still ongoing.

### **Mountain Comprehensive Care Center & Adanta**

In 2022, Mountain Comprehensive Care Center and Adanta filed separate suits challenging the actuarially accrued liability assigned these two entities via the process outlined in KRS 61.565, known as House Bill 8 from the 2021 Regular Session of the Kentucky General Assembly. The suits challenge not only the liability assigned to them, but they challenge the constitutionality of the statutory scheme. This litigation is ongoing.

### **James Redwine, David Campbell, & Michael Steward**

Three complaints were filed against the Kentucky Retirement Systems (KRS) on behalf of specific named plaintiffs and others similarly situated based on the same facts that gave rise to the former River City Fraternal Order of Police (FOP) complaint. KPPA was aware that the River City FOP case impacted more individuals than the named plaintiffs and had been working on legislative and regulatory solutions. Legislation passed by the 2022 General Assembly allows individuals negatively impacted by the Medicare Secondary Payer Act to receive their health insurance through the Kentucky Employees Health Plan, and KPPA has promulgated a regulation to reimburse those individuals who had to pay for health insurance consistent with the Sixth Circuit Opinion. In addition to the MSPA issue, these three complaints allege that requiring Medicare eligible members to pay for Medicare Part B violates their right to “free” health insurance under their inviolable contract.

These suits are identical to two suits filed against the County Employees Retirement System (CERS). The cases against KRS are being held in abeyance pending the outcome of the class certification issue in the CERS cases.

## **Note L. Reciprocity Agreement**

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In accordance with Kentucky Revised Statutes 61.702, KRS has reciprocity agreements with County Employees Retirement System (CERS), Teachers' Retirement System of Kentucky (TRS) and Judicial Form Retirement System (JFRS) for the payment of insurance benefits for those members who have creditable service in KERS, SPRS and CERS, TRS and/or JFRS systems.

## Note M. Reimbursement of Retired Re-Employed Health Insurance, Active Member Health Insurance Contributions, and Retired Re-Employed Employer Contributions

### Reimbursement of Retired Re-Employed Health Insurance

If a retiree is re-employed in a regular full-time position and has chosen health insurance coverage through KRS, the employer is required to reimburse KRS for the health insurance premium paid on the retiree's behalf, not to exceed the cost of the single premium rate. Exceptions for retired members who re-employ as a police officer, sheriff or school resource officer exist which may exempt employers from paying employer contributions and health insurance reimbursements if certain requirements are met. For the fiscal year ended June 30, 2024, the reimbursement totaled \$9.4 million. Please see the chart below for the breakdown.

### Active Member Health Insurance Contributions

For new plan participants after August 31, 2008, an active member contribution of 1% in addition to the member pension contribution is required. This 1% is applicable to all Nonhazardous and Hazardous Plans, and reported in the Insurance Plans. For the fiscal year ended June 30, 2024, members paid into the Insurance Plans \$13.1 million. Please see the chart below for the breakdown.

### Retired Re-Employed Employer Contributions

Employers are required to report employer contributions on retired members who are employed in a regular full-time position. These members are referred to as retired re-employed members. These are reported within the employer contributions on the financial statements. Exceptions for retired members who re-employ as a police officer, sheriff or school resource officer exist which may exempt employers from paying employer contributions and health insurance reimbursements if certain requirements are met.

Retired Reemployed Healthcare Contributions As of June 30, 2024 (\$ in Thousands)	KERS		SPRS	KRS Total
	Nonhazardous	Hazardous		
Amount	\$7,484	\$1,865	\$5	\$9,354

Member Health Insurance Contributions As of June 30, 2024 (\$ in Thousands)	KERS		SPRS	KRS Total
	Nonhazardous	Hazardous		
Amount	\$10,585	\$2,086	\$396	\$13,067



## Note N. General Fund Appropriations

During the 2022 Regular Session of the Kentucky General Assembly, HB1 allocated an additional \$485 million in general fund dollars to the KERS Nonhazardous Plan and the SPRS Plan. This amount included \$215 million in FY 2021-2022 for the SPRS Pension Plan to be applied to the unfunded liability, which immediately lowered the SPRS contribution rate from 146.06% to 99.43% for the 2022-2023 fiscal year. The rest of the \$485 million consisted of \$135 million in each fiscal year of the biennium (2023 and 2024) for the KERS Nonhazardous Pension Plan to be applied to the unfunded liability. Also, House Bill 604 allocated \$105 million in fiscal year 2023 and fiscal year 2024 to be applied to the unfunded liability of the KERS Nonhazardous Pension Plan.

General Fund Appropriations (\$ in Thousands)			
Fiscal Year	KERS		KRS Total
	Nonhazardous	SPRS	
2021-2022	\$-	\$215,000	\$215,000
2022-2023	\$240,000	\$-	\$240,000
2023-2024	\$240,000	\$-	\$240,000
<b>Total</b>	<b>\$480,000</b>	<b>\$215,000</b>	<b>\$695,000</b>

## Note O. Prisma Daniel Boone Fund

The funds invested with Prisma Daniel Boone Fund continue to be held in a contingency reserve to cover potential obligations arising from the Mayberry Action (see Note K for details of Mayberry Case). The total reported in reserve as of June 30, 2024, is \$25.8 million for the Pension Plans and \$12.9 million for the Insurance Plan. This is based on the May 31, 2024, report because Absolute Return managers are reported on a one month lag.

## Note P. Subsequent Events

Management has evaluated the period June 30, 2024 to December 5, 2024 (the date the combining financial statements were available to be issued) for items requiring recognition or disclosure in the combining financial statements.

## Note Q. Related Party

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KPPA is the special-purpose government responsible for the day-to-day administration of KRS and the County Employees Retirement System (CERS).

Kentucky Revised Statute 61.505 11(a) requires all expenses incurred by or on behalf of KPPA to be prorated, assigned, or allocated to the Systems that KPPA administers. KPPA works closely with the KRS and CERS Boards of Trustees to develop an allocation method that takes into consideration membership, assets under management, system specific costs, and statutory requirements.

The expenses incurred by KPPA on behalf of Systems are administrative costs which include salaries and benefits of professional employees providing investment management, benefits counseling, legal services, information technology services, accounting, and payroll functions. In addition, administrative costs include operational payments for hardware, software, utilities, rent, as well as contract and consulting costs with legal, audit and actuarial service providers. The administrative budget of KPPA is funded with restricted funds of KRS and CERS and is subject to approval by the Kentucky General Assembly through the biennial budget process.

Total Administrative costs incurred by KPPA for the fiscal year ended June 30, 2024, were \$47.3 million, of which \$16.9 million was allocated to KRS based on the hybrid allocation developed by the KPPA Board, the KRS Board, and the CERS Board.

KRS DRAFT 12-4-2024

# REQUIRED SUPPLEMENTARY INFORMATION INCLUDING GASB 67 AND 74

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**Schedule of Employers' NPL - KERS Nonhazardous Pension  
As of June 30 (\$ in Thousands)**

Year	Total Pension Liability (TPL)	Plan Fiduciary Net Position	Net Pension Liability	Ratio of Plan Fiduciary Net Position to TPL	Covered Payroll <sup>(1)</sup>	Net Pension Liability as a Percentage of Covered Payroll
2024	\$16,273,602	\$4,223,936	\$12,049,666	25.96%	\$1,912,421	630.07%
2023	15,858,669	3,539,943	12,318,726	22.32%	1,648,318	747.35%
2022	16,281,188	3,013,845	13,267,343	18.51%	1,432,960	925.87%
2021	16,335,657	3,018,660	13,316,997	18.48%	1,441,337	923.93%
2020	16,472,733	2,308,080	14,164,653	14.01%	1,476,156	959.56%
2019	16,356,674	2,233,672	14,123,002	13.66%	1,485,854	950.50%
2018	15,608,221	2,004,446	13,603,775	12.84%	1,509,955	900.94%
2017	15,445,206	2,056,870	13,388,336	13.32%	1,602,396	835.52%
2016	13,379,781	1,980,292	11,399,489	14.80%	1,631,025	698.92%
2015	\$12,359,673	\$2,327,783	\$10,031,890	18.83%	\$1,544,234	649.64%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

**Schedule of Employers' NPL - KERS Hazardous Pension  
As of June 30 (\$ in Thousands)**

Year	Total Pension Liability (TPL)	Plan Fiduciary Net Position	Net Pension Liability	Ratio of Plan Fiduciary Net Position to TPL	Covered Payroll <sup>(1)</sup>	Net Pension Liability as a Percentage of Covered Payroll
2024	\$1,393,651	\$1,019,890	\$373,761	73.18%	\$279,218	133.86%
2023	1,316,521	893,533	422,988	67.87%	223,922	188.90%
2022	1,318,494	810,978	507,516	61.51%	188,648	269.03%
2021	1,311,767	866,140	445,627	66.03%	172,725	258.00%
2020	1,251,027	690,350	560,677	55.18%	171,840	326.28%
2019	1,227,226	680,932	546,294	55.49%	160,600	340.16%
2018	1,150,610	645,485	505,125	56.10%	152,936	330.29%
2017	1,098,630	601,529	497,101	54.75%	178,511	278.47%
2016	919,517	527,879	391,638	57.41%	158,828	246.58%
2015	\$895,433	\$552,468	\$342,965	61.70%	\$128,680	266.53%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

**Schedule of Employer's NPL - SPRS Pension  
As of June 30 (\$ in Thousands)**

Year	Total Pension Liability (TPL)	Plan Fiduciary Net Position	Net Pension Liability	Ratio of Plan Fiduciary Net Position to TPL	Covered Payroll <sup>(1)</sup>	Net Pension Liability as a Percentage of Covered Payroll
2024	\$1,101,632	\$651,790	\$449,842	59.17%	\$71,964	625.09%
2023	1,039,813	591,514	448,299	56.89%	65,693	682.42%
2022	1,057,752	551,699	506,053	52.16%	48,061	1,052.94%
2021	1,055,824	356,346	699,478	33.75%	47,873	1,461.11%
2020	1,049,237	293,949	755,288	28.02%	49,019	1,540.81%
2019	1,035,000	286,165	748,835	27.65%	49,515	1,512.34%
2018	969,622	267,572	702,050	27.60%	50,346	1,394.45%
2017	943,271	255,737	687,534	27.11%	54,065	1,271.68%
2016	795,421	218,012	577,409	27.41%	46,685	1,236.82%
2015	\$734,156	\$247,228	\$486,928	33.68%	\$45,765	1,063.97%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

### Schedule of Changes in Employers' TPL - KERS Nonhazardous As of June 30 (\$ in Thousands)

Total Pension Liability (TPL)	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Service Cost	\$184,567	\$163,563	\$165,616	\$171,472	\$179,702	\$184,988	\$195,681	\$143,858	\$139,631	\$143,847
Interest	805,180	827,579	830,440	838,084	832,178	793,163	785,123	870,725	891,897	859,509
Benefit Changes	-	2,024	-	2,091	-	-	9,624	-	-	-
Difference between Expected and Actual Experience	469,003	310,954	(15,034)	(130,268)	115,515	70,529	153,565	(134,379)	-	30,958
Changes of Assumptions	-	(691,088)	-	-	-	700,464	-	2,145,530	923,999	694,592
Benefit Payments	(1,043,817)	(1,035,551)	(1,035,491)	(1,018,455)	(1,011,336)	(1,000,691)	(980,978)	(960,309)	(935,419)	(919,343)
<b>Net Change in TPL</b>	<b>414,933</b>	<b>(422,519)</b>	<b>(54,469)</b>	<b>(137,076)</b>	<b>116,059</b>	<b>748,453</b>	<b>163,015</b>	<b>2,065,425</b>	<b>1,020,108</b>	<b>809,563</b>
<b>TPL – Beginning</b>	<b>15,858,669</b>	<b>16,281,188</b>	<b>16,335,657</b>	<b>16,472,733</b>	<b>16,356,674</b>	<b>15,608,221</b>	<b>15,445,206</b>	<b>13,379,781</b>	<b>12,359,673</b>	<b>11,550,110</b>
<b>TPL – Ending (a)</b>	<b>\$16,273,602</b>	<b>\$15,858,669</b>	<b>\$16,281,188</b>	<b>\$16,335,657</b>	<b>\$16,472,733</b>	<b>\$16,356,674</b>	<b>\$15,608,221</b>	<b>\$15,445,206</b>	<b>\$13,379,781</b>	<b>\$12,359,673</b>
<b>Plan Fiduciary Net Position <sup>(1)</sup></b>										
Contributions – Employer Other <sup>(6)</sup>	1,295,695	\$1,275,007	\$1,116,869	\$1,134,232	\$948,592	\$1,035,462	\$689,143	\$757,121	\$513,084	\$521,691
Contributions – Member <sup>(2)</sup>	96,615	84,579	89,607	90,202	96,594	93,759	104,972	100,543	106,494	104,606
Refunds of Contributions	(11,693)	(11,847)	(12,116)	(8,953)	(11,523)	(12,342)	(13,603)	(11,819)	(12,130)	(13,552)
Retirement Benefit	(1,032,124)	(1,023,704)	(1,023,375)	(1,009,502)	(999,813)	(988,349)	(967,375)	(948,490)	(923,288)	(905,791)
Net Investment Income <sup>(2)</sup>	349,628	215,880	(162,461)	516,223	52,499	112,371	144,881	220,985	(20,663)	44,570
Administrative Expense	(14,128)	(13,817)	(13,339)	(11,622)	(11,941)	(11,712)	(10,692)	(10,957)	(10,989)	(10,474)
Other	-	-	-	-	-	37 <sup>(5)</sup>	301 <sup>(5)</sup>	(30,805) <sup>(4)</sup>	-	8,442
<b>Net Change in Fiduciary Net Position</b>	<b>683,993</b>	<b>526,098</b>	<b>(4,815)</b>	<b>710,580</b>	<b>74,408</b>	<b>229,226</b>	<b>(52,373)</b>	<b>76,578</b>	<b>(347,491)</b>	<b>(250,508)</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>3,539,943</b>	<b>3,013,845</b>	<b>3,018,660</b>	<b>2,308,080</b>	<b>2,233,672</b>	<b>2,004,446</b>	<b>2,056,870</b>	<b>1,980,292</b>	<b>2,327,783</b>	<b>2,578,291</b>
<b>Prior Year Adjustment</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(51)</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>4,223,936</b>	<b>3,539,943</b>	<b>3,013,845</b>	<b>3,018,660</b>	<b>2,308,080</b>	<b>2,233,672</b>	<b>2,004,446</b>	<b>2,056,870</b>	<b>1,980,292</b>	<b>2,327,783</b>
<b>Net Pension Liability – Ending (a) – (b)</b>	<b>\$12,049,666</b>	<b>\$12,318,726</b>	<b>\$13,267,343</b>	<b>\$13,316,997</b>	<b>\$14,164,653</b>	<b>\$14,123,002</b>	<b>\$13,603,775</b>	<b>\$13,388,336</b>	<b>\$11,399,489</b>	<b>\$10,031,890</b>
Plan Fiduciary Net Position as a Percentage	25.96%	22.32%	18.51%	18.48%	14.01%	13.66%	12.84%	13.32%	14.80%	18.83%
Covered Payroll <sup>(3)</sup>	\$1,912,421	\$1,648,318	\$1,432,960	\$1,441,337	\$1,476,156	\$1,485,854	\$1,509,955	\$1,602,396	\$1,631,025	\$1,544,234
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>630.07%</b>	<b>747.35%</b>	<b>925.87%</b>	<b>923.93%</b>	<b>959.56%</b>	<b>950.50%</b>	<b>900.94%</b>	<b>835.52%</b>	<b>698.92%</b>	<b>649.64%</b>

<sup>(1)</sup> Does not include 401(h) assets for fiscal years 2017 and later. 401(h) assets totaled \$73,635,000 as of June 30, 2024.

<sup>(2)</sup> Does not include 401(h) contributions or associated investment income for fiscal year 2017 and later. For fiscal year 2024 401(h) contributions equaled \$(18,000); and associated investment return equaled \$6,390,000.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

<sup>(4)</sup> Adjustment due to 401(h) plan asset balance being considered an OPEB asset under GASB 74 for fiscal years 2017 and later.

<sup>(5)</sup> Northern Trust Settlement.

## KRS DRAFT 12-4-2024

**Schedule of Changes in Employers' TPL - KERS Hazardous  
As of June 30 (\$ in Thousands)**

<b>Total Pension Liability (TPL)</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Service Cost	\$32,732	\$26,852	\$26,885	\$28,450	\$25,568	\$27,117	\$28,641	\$21,081	\$20,751	\$18,729
Interest	79,637	79,822	79,422	75,743	74,357	69,657	66,536	66,589	64,851	61,005
Benefit Changes	-	-	-	26	-	-	705	-	-	-
Difference between Expected and Actual Experience	49,423	(1,773)	(17,557)	34,789	(1,095)	1,395	24,215	26,902	-	6,067
Changes of Assumptions	-	(24,197)	-	-	-	50,658	-	127,878	-	52,165
Benefit Payments	(84,662)	(82,677)	(82,023)	(78,268)	(75,029)	(72,211)	(68,117)	(63,338)	(61,518)	(59,383)
<b>Net Change in TPL</b>	<b>77,130</b>	<b>(1,973)</b>	<b>6,727</b>	<b>60,740</b>	<b>23,801</b>	<b>76,616</b>	<b>51,980</b>	<b>179,112</b>	<b>24,084</b>	<b>78,583</b>
<b>TPL – Beginning</b>	<b>1,316,521</b>	<b>1,318,494</b>	<b>1,311,767</b>	<b>1,251,027</b>	<b>1,227,226</b>	<b>1,150,610</b>	<b>1,098,630</b>	<b>919,517</b>	<b>895,433</b>	<b>816,850</b>
<b>TPL – Ending (a)</b>	<b>\$1,393,651</b>	<b>\$1,316,521</b>	<b>\$1,318,494</b>	<b>\$1,311,767</b>	<b>\$1,251,027</b>	<b>\$1,227,226</b>	<b>\$1,150,610</b>	<b>\$1,098,630</b>	<b>\$919,517</b>	<b>\$895,433</b>
<b>Plan Fiduciary Net Position <sup>(1)</sup></b>										
Contributions – Employer	\$89,899	\$72,807	\$59,055	\$62,200	\$59,115	\$55,259	\$43,661	\$52,974	\$23,759	\$28,536
Contributions - Member <sup>(2)</sup>	21,568	17,459	20,588	19,961	19,769	17,118	17,891	17,524	15,739	13,207
Refunds of Contributions	(4,133)	(4,041)	(4,976)	(4,380)	(3,168)	(2,684)	(2,501)	(2,106)	(2,211)	(2,610)
Retirement Benefit	(80,529)	(78,636)	(77,047)	(73,888)	(71,861)	(69,527)	(65,616)	(61,231)	(59,306)	(56,773)
Net Investment Income <sup>(2)</sup>	101,135	76,479	(51,317)	173,152	6,739	36,380	51,467	70,994	(1,653)	8,701
Administrative Expense	(1,583)	(1,513)	(1,465)	(1,255)	(1,176)	(1,103)	(975)	(919)	(916)	(844)
Other	-	-	-	-	-	4 <sup>(5)</sup>	33 <sup>(5)</sup>	(3,586) <sup>(4)</sup>	-	767
<b>Net Change in Plan Fiduciary Net Position</b>	<b>126,357</b>	<b>82,555</b>	<b>(55,162)</b>	<b>175,790</b>	<b>9,418</b>	<b>35,447</b>	<b>43,960</b>	<b>73,650</b>	<b>(24,588)</b>	<b>(9,016)</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>893,533</b>	<b>810,978</b>	<b>866,140</b>	<b>690,350</b>	<b>680,932</b>	<b>645,485</b>	<b>601,529</b>	<b>527,879</b>	<b>552,468</b>	<b>561,484</b>
<b>Prior Year Adjustment</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(4)</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Fiduciary Net Position – Ending (b)</b>	<b>1,019,890</b>	<b>893,533</b>	<b>810,978</b>	<b>866,140</b>	<b>690,350</b>	<b>680,932</b>	<b>645,485</b>	<b>601,529</b>	<b>527,879</b>	<b>552,468</b>
<b>Net Pension Liability – Ending (a) – (b)</b>	<b>\$373,761</b>	<b>\$422,988</b>	<b>\$507,516</b>	<b>\$445,627</b>	<b>\$560,677</b>	<b>\$546,294</b>	<b>\$505,125</b>	<b>\$497,101</b>	<b>\$391,638</b>	<b>\$342,965</b>
Plan Fiduciary Net Position as a Percentage	73.18%	67.87%	61.51%	66.03%	55.18%	55.49%	56.10%	54.75%	57.41%	61.70%
Covered Payroll <sup>(3)</sup>	\$279,218	\$223,922	\$188,648	\$172,725	\$171,840	\$160,600	\$152,936	\$178,511	\$158,828	\$128,680
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>133.86%</b>	<b>188.90%</b>	<b>269.03%</b>	<b>258.00%</b>	<b>326.28%</b>	<b>340.16%</b>	<b>330.29%</b>	<b>278.47%</b>	<b>246.58%</b>	<b>266.53%</b>

<sup>(1)</sup> Does not include 401(h) assets for fiscal years 2017 and later. 401(h) assets totaled \$10,031,000 as of June 30, 2024.

<sup>(2)</sup> Does not include 401(h) contributions or associated investment income for fiscal years 2017 and later. For fiscal years 2024, 401(h) contributions equaled \$(8,000); and associated investment return equaled \$1,005,000.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

<sup>(4)</sup> Adjustment due to 401(h) plan asset balance being considered an OPEB asset under GASB 74 for fiscal years 2017 and later.

<sup>(5)</sup> Northern Trust Settlement.

**Schedule of Changes in Employer's TPL - SPRS  
As of June 30 (\$ in Thousands)**

<b>Total Pension Liability (TPL)</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Service Cost	\$18,243	\$13,229	\$12,158	\$12,530	\$13,192	\$11,726	\$11,890	\$8,297	\$8,402	\$7,695
Interest	52,909	53,853	53,740	53,417	52,697	49,301	47,978	51,769	52,951	50,661
Benefit Changes	-	-	3,130	35	-	-	184	-	-	-
Difference between Expected and Actual Experience	54,711	10,204	(2,700)	4,127	10,859	20,952	25,126	8,143	-	9,331
Changes of Assumptions	-	(31,255)	-	0	-	44,510	-	136,602	56,191	40,201
Benefit Payments	(64,044)	(63,970)	(64,400)	(63,522)	(62,511)	(61,111)	(58,827)	(56,960)	(56,279)	(54,850)
<b>Net Change in TPL</b>	<b>61,819</b>	<b>(17,939)</b>	<b>1,928</b>	<b>6,587</b>	<b>14,237</b>	<b>65,378</b>	<b>26,351</b>	<b>147,850</b>	<b>61,265</b>	<b>53,038</b>
<b>TPL - Beginning</b>	<b>1,039,813</b>	<b>1,057,752</b>	<b>1,055,824</b>	<b>1,049,237</b>	<b>1,035,000</b>	<b>969,622</b>	<b>943,271</b>	<b>795,421</b>	<b>734,156</b>	<b>681,118</b>
<b>TPL - Ending (a)</b>	<b>\$1,101,632</b>	<b>\$1,039,813</b>	<b>\$1,057,752</b>	<b>\$1,055,824</b>	<b>\$1,049,237</b>	<b>\$1,035,000</b>	<b>\$969,622</b>	<b>\$943,271</b>	<b>\$795,421</b>	<b>\$734,156</b>
<b>Plan Fiduciary Net Position <sup>(1)</sup></b>										
Contributions – Employer	\$61,998	\$58,120	\$277,341	\$59,650	\$59,453	\$60,048	\$46,877	\$63,239	\$25,822	\$31,990
Contributions - Member <sup>(2)</sup>	5,703	5,250	4,773	4,752	4,767	5,062	5,522	5,348	5,263	5,244
Refunds of Contributions	(221)	(166)	(280)	(273)	(88)	(162)	(22)	(26)	(11)	(85)
Retirement Benefit	(63,823)	(63,804)	(64,120)	(63,249)	(62,423)	(60,949)	(58,805)	(56,934)	(56,268)	(54,765)
Net Investment Income <sup>(2)</sup>	56,933	40,708	(22,088)	61,729	6,341	14,816	18,437	26,795	(3,843)	3,426
Administrative Expense	(314)	(293)	(273)	(212)	(266)	(225)	(194)	(181)	(178)	(201)
Other	-	-	-	-	-	3 <sup>(5)</sup>	21 <sup>(5)</sup>	(517) <sup>(4)</sup>	-	645
<b>Net Change in Plan Fiduciary Net Position</b>	<b>60,276</b>	<b>39,815</b>	<b>195,353</b>	<b>62,397</b>	<b>7,784</b>	<b>18,593</b>	<b>11,836</b>	<b>37,724</b>	<b>(29,215)</b>	<b>(13,746)</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>591,514</b>	<b>551,699</b>	<b>356,346</b>	<b>293,949</b>	<b>286,165</b>	<b>267,572</b>	<b>255,737</b>	<b>218,012</b>	<b>247,228</b>	<b>260,974</b>
<b>Prior Year Adjustment</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(1)</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>651,790</b>	<b>591,514</b>	<b>551,699</b>	<b>356,346</b>	<b>293,949</b>	<b>286,165</b>	<b>267,572</b>	<b>255,737</b>	<b>218,012</b>	<b>247,228</b>
<b>Net Pension Liability – Ending (a) – (b)</b>	<b>\$449,842</b>	<b>\$448,299</b>	<b>\$506,053</b>	<b>\$699,478</b>	<b>\$755,288</b>	<b>\$748,835</b>	<b>\$702,050</b>	<b>\$687,534</b>	<b>\$577,409</b>	<b>\$486,928</b>
Plan Fiduciary Net Position as a Percentage	59.17%	56.89%	52.16%	33.75%	28.02%	27.65%	27.60%	27.11%	27.41%	33.68%
Covered Payroll <sup>(3)</sup>	\$71,964	\$65,693	\$48,061	\$47,873	\$49,019	\$49,515	\$50,346	\$54,065	\$46,685	\$45,765
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>625.09%</b>	<b>682.42%</b>	<b>1,052.94%</b>	<b>1,461.11%</b>	<b>1,540.81%</b>	<b>1,512.34%</b>	<b>1,394.45%</b>	<b>1,271.68%</b>	<b>1,236.82%</b>	<b>1,063.97%</b>

<sup>(1)</sup> Does not include 401(h) assets for fiscal years 2017 and later. 401(h) assets totaled \$1,426,000 as of June 30, 2024.

<sup>(2)</sup> Does not include 401(h) contributions or associated investment income for fiscal years 2017 and later. For fiscal year 2024, 401(h) contributions equaled (\$12,000); and associated investment return equaled \$126,000.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

<sup>(4)</sup> Adjustment due to 401(h) plan asset balance being considered an OPEB asset under GASB 74 for fiscal years 2017 and later.

<sup>(5)</sup> Northern Trust Settlement.

**Notes to Schedule of Employers' Contributions**

The actuarially determined contributions effective for fiscal year ended June 30, 2024 that are documented in the schedules on the following pages, were calculated as of June 30, 2021. Based on the June 30, 2021, actuarial valuation report, the actuarial methods and assumptions used to calculate these contribution rates are below:

<b>Notes to Schedule of Employers' Contribution</b>			
<b>Item</b>	<b>KERS Nonhazardous</b>	<b>KERS Hazardous</b>	<b>SPRS</b>
<b>Determined by the Actuarial Valuation as of:</b>	June 30, 2021	June 30, 2021	June 30, 2021
<b>Actuarial Cost Method:</b>	Entry Age Normal	Entry Age Normal	Entry Age Normal
<b>Asset Valuation Method:</b>	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized
<b>Amortization Method:</b>	Level Percent of Pay	Level Percent of Pay	Level Percent of Pay
<b>Amortization Period:</b>	30-year closed period at June 30, 2019, Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases	30-year closed period at June 30, 2019, Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases	30-year closed period at June 30, 2019, Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases
<b>Payroll Growth</b>	0.00%	0.00%	0.00%
<b>Investment Return:</b>	5.25%	6.25%	5.25%
<b>Inflation:</b>	2.30%	2.30%	2.30%
<b>Salary Increase:</b>	3.30% to 15.30%, varies by service	3.55% to 20.05%, varies by service	3.55% to 16.05%, varies by service
<b>Mortality:</b>	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019



**Schedule of Employers' Contribution****Schedule of Employers' Contributions Pension - KERS Nonhazardous  
As of June 30 (\$ in Thousands)**

Fiscal Year Ending	Actuarially Determined Contribution <sup>(1)</sup>	Total Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll <sup>(2)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$1,055,571	\$1,295,695	\$(240,124)	\$1,912,421	67.75%
2023	1,034,918	1,275,007	(240,089)	1,648,318	77.35%
2022	1,048,861	1,116,869	(68,008)	1,432,960	77.94%
2021	1,056,211	1,134,232	(78,021)	1,441,337	78.69%
2020	1,048,513	948,592	99,921	1,476,156	64.26%
2019	1,055,402	1,035,462	19,940	1,485,854	69.69%
2018	633,879	689,143	(55,264)	1,509,955	45.64%
2017	623,813	757,121	(133,308)	1,602,396	47.25%
2016	512,670	513,084	(414)	1,631,025	31.46%
2015	\$520,948	\$521,691	\$(743)	\$1,544,234	33.78%

<sup>(1)</sup> Actuarially determined contribution for fiscal year ending 2024 is based on the contribution rate calculated with the June 30, 2021, actuarial valuation.

<sup>(2)</sup> Based on derived compensation using the provided employer contribution information for fiscal year ended 2017, and later.

**Schedule of Employers' Contributions Pension - KERS Hazardous  
As of June 30 (\$ in Thousands)**

Fiscal Year Ending	Actuarially Determined Contribution <sup>(1)</sup>	Total Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll <sup>(2)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$89,897	\$89,899	\$(2)	\$279,218	32.20%
2023	72,778	72,807	(29)	223,922	32.51%
2022	59,052	59,055	(3)	188,648	31.30%
2021	62,181	62,200	(19)	172,725	36.01%
2020	59,096	59,115	(19)	171,840	34.40%
2019	55,230	55,259	(29)	160,600	34.41%
2018	31,321	43,661	(12,340)	152,936	28.55%
2017	37,630	52,974	(15,344)	178,511	29.68%
2016	23,690	23,759	(69)	158,828	14.96%
2015	\$28,374	\$28,536	\$(162)	\$128,680	22.18%

<sup>(1)</sup> Actuarially determined contribution for fiscal year ending 2024 is based on the contribution rate calculated with the June 30, 2021, actuarial valuation.

<sup>(2)</sup> Based on derived compensation using the provided employer contribution information for fiscal year ended 2017, and later.

**Schedule of Employer's Contributions Pension - SPRS  
As of June 30 (\$ in Thousands)**

<b>Fiscal Year Ending</b>	<b>Actuarially Determined Contribution <sup>(1)</sup></b>	<b>Total Employer Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll <sup>(2)</sup></b>	<b>Actual Contributions as a Percentage of Covered Payroll</b>
2024	\$61,998	\$61,998	\$-	\$71,964	86.15%
2023	58,120	58,120	-	65,693	88.47%
2022	62,341	277,341	(215,000)	48,061	577.06%
2021	59,263	59,650	(387)	47,873	124.60%
2020	58,358	59,453	(1,095)	49,019	121.29%
2019	58,948	60,048	(1,100)	49,515	121.27%
2018	36,033	46,877	(10,844)	50,346	93.11%
2017	35,937	63,240	(27,303)	54,065	116.97%
2016	25,723	25,822	(99)	46,685	55.31%
2015	\$31,444	\$31,990	\$(546)	\$45,765	69.90%

<sup>(1)</sup> Actuarially determined contribution for fiscal year ending 2024 is based on the contribution rate calculated with the June 30, 2021, actuarial valuation.

<sup>(2)</sup> Based on derived compensation using the provided employer contribution information for fiscal years ended 2017, and later.

## Schedule of Employers' Net OPEB Liability

### Schedule of the Employers' Net OPEB Liability - KERS Nonhazardous As of June 30 (\$ in Thousands)

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$2,488,778	\$1,765,729	\$723,049	70.95%	\$1,923,825	37.58%
2023	2,317,344	1,532,752	784,592	66.14%	1,653,492	47.45%
2022	3,576,530	1,364,419	2,212,111	38.15%	1,437,132	153.93%
2021	3,698,804	1,419,477	2,279,327	38.38%	1,452,345	156.94%
2020	3,599,557	1,060,649	2,538,908	29.47%	1,482,431	171.27%
2019	3,217,985	995,089	2,222,896	30.92%	1,515,953	146.63%
2018	3,262,117	891,205	2,370,912	27.32%	1,573,898	150.64%
2017	\$3,353,332	\$817,370	\$2,535,962	24.37%	\$1,593,097	159.18%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information. This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

### Schedule of the Employers' Net OPEB Liability - KERS Hazardous As of June 30 (\$ in Thousands)

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$442,817	\$677,948	\$(235,131)	153.10%	\$279,218	(84.21)%
2023	417,361	625,356	(207,995)	149.84%	223,922	(92.89)%
2022	595,789	588,162	7,627	98.72%	188,648	4.04%
2021	622,152	633,677	(11,525)	101.85%	172,725	(6.67)%
2020	564,524	521,755	42,769	92.42%	182,209	23.47%
2019	507,204	534,053	(26,849)	105.29%	151,448	(17.73)%
2018	485,904	519,072	(33,168)	106.83%	190,317	(17.43)%
2017	\$494,869	\$488,838	\$6,031	98.78%	\$171,087	3.53%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information. For 2021, 2022, 2023, and 2024 derived compensation based on pension contribution information, as there were no required employer contributions for the Insurance Plan for FYE 2021, FYE 2022, FYE 2023, and FYE 2024. This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

### Schedule of the Employer's Net OPEB Liability - SPRS As of June 30 (\$ in Thousands)

Year	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	Covered Payroll <sup>(1)</sup>	Net OPEB Liability as a Percentage of Covered Payroll
2024	\$277,159	\$273,517	\$3,642	98.69%	\$71,992	5.06%
2023	263,450	248,109	15,341	94.18%	65,830	23.30%
2022	351,453	231,242	120,211	65.80%	48,600	247.35%
2021	364,899	247,318	117,581	67.78%	47,155	249.35%
2020	339,942	201,340	138,602	59.23%	48,231	287.37%
2019	312,553	201,206	111,347	64.38%	48,780	228.26%
2018	301,012	190,847	110,165	63.40%	50,064	220.05%
2017	\$313,234	\$178,838	\$134,396	57.09%	\$48,873	274.99%

<sup>(1)</sup> Based on derived compensation using the provided employer contribution information. This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

**Schedule of Changes in Net OPEB Liability**

<b>Schedule of Changes in Employers' Net OPEB Liability - KERS Nonhazardous</b>								
<b>As of June 30 (\$ in Thousands)</b>								
	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Total OPEB Liability</b>								
Service Cost	\$44,779	\$43,199	\$62,548	\$58,831	\$59,600	\$61,345	\$66,360	\$46,992
Interest	134,251	200,910	190,531	191,624	179,811	186,820	191,178	192,911
Benefit Changes	-	3,209	21,884	1,382	-	-	1,865	-
Difference between Expected and Actual Experience	80,456	(1,440,201)	(37,249)	(231,631)	288,235	(302,189)	(191,147)	(3,921)
Changes of Assumptions	26,413	61,925	(206,907)	220,184	13,767	158,004	(11,235)	414,835
Benefit Payments <sup>(1) (2)</sup>	(114,465)	(128,228)	(153,081)	(141,143)	(159,841)	(148,112)	(148,236)	(139,601)
<b>Net Change in Total OPEB Liability</b>	<b>171,434</b>	<b>(1,259,186)</b>	<b>(122,274)</b>	<b>99,247</b>	<b>381,572</b>	<b>(44,132)</b>	<b>(91,215)</b>	<b>511,216</b>
<b>Total OPEB Liability - Beginning</b>	<b>2,317,344</b>	<b>3,576,530</b>	<b>3,698,804</b>	<b>3,599,557</b>	<b>3,217,985</b>	<b>3,262,117</b>	<b>3,353,332</b>	<b>2,842,116</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$2,488,778</b>	<b>\$2,317,344</b>	<b>\$3,576,530</b>	<b>\$3,698,804</b>	<b>\$3,599,557</b>	<b>\$3,217,985</b>	<b>\$3,262,117</b>	<b>\$3,353,332</b>
<b>Plan Fiduciary Net Position</b>								
Contributions – Employer <sup>(2)(5)</sup>	\$164,480	\$156,543	\$181,294	\$223,661	\$208,300	\$201,155	\$152,985	\$162,636
Contributions – Member	10,585	8,358	6,547	6,318	6,128	5,963	5,786	5,156
Benefit Payments <sup>(1) (2)</sup>	(114,465)	(128,228)	(153,081)	(141,143)	(159,841)	(148,112)	(148,236)	(139,601)
OPEB Plan Net Investment Income	173,104	132,431	(88,998)	270,811	11,820	45,749	64,028	94,239
OPEB Plan Administrative Expense	(727)	(771)	(820)	(819)	(847)	(875)	(760)	(861)
Other <sup>(4)</sup>	-	-	-	0	-	4	32	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>232,977</b>	<b>168,333</b>	<b>(55,058)</b>	<b>358,828</b>	<b>65,560</b>	<b>103,884</b>	<b>73,835</b>	<b>121,569</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>1,532,752</b>	<b>1,364,419</b>	<b>1,419,477</b>	<b>1,060,649</b>	<b>995,089</b>	<b>891,205</b>	<b>817,370</b>	<b>695,801</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>1,765,729</b>	<b>1,532,752</b>	<b>1,364,419</b>	<b>1,419,477</b>	<b>1,060,649</b>	<b>995,089</b>	<b>891,205</b>	<b>817,370</b>
<b>Net OPEB Liability – Ending (a) – (b)</b>	<b>\$723,049</b>	<b>\$784,592</b>	<b>\$2,212,111</b>	<b>\$2,279,327</b>	<b>\$2,538,908</b>	<b>\$2,222,896</b>	<b>\$2,370,912</b>	<b>\$2,535,962</b>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	70.95%	66.14%	38.15%	38.38%	29.47%	30.92%	27.32%	24.37%
Covered Payroll <sup>(3)</sup>	\$1,923,825	\$1,653,492	\$1,437,132	\$1,452,345	\$1,482,431	\$1,515,953	\$1,573,898	\$1,593,097
<b>Net OPEB Liability as a Percentage of Covered Payroll</b>	<b>37.58%</b>	<b>47.45%</b>	<b>153.93%</b>	<b>156.94%</b>	<b>171.27%</b>	<b>146.63%</b>	<b>150.64%</b>	<b>159.18%</b>

<sup>(1)</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>(2)</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to \$27,851,763 for fiscal year 2024.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information.

<sup>(4)</sup> Northern Trust Settlement.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

**Schedule of Changes in Employers' Net OPEB Liability - KERS Hazardous  
As of June 30 (\$ in Thousands)**

	2024	2023	2022	2021	2020	2019	2018	2017
<b>Total OPEB Liability</b>								
Service Cost	\$8,128	\$9,435	\$14,474	\$13,633	\$11,548	\$12,337	\$12,893	\$8,002
Interest on Total OPEB liability	24,181	32,737	30,599	29,254	28,101	27,990	28,500	27,591
Benefit Changes	-	-	10,289	48	-	-	167	-
Difference between Expected and Actual Experience	7,970	(198,459)	(12,515)	(6,402)	27,668	(30,947)	(31,240)	(1,029)
Assumption Changes	5,719	(1,820)	(46,406)	42,022	11,428	31,687	(581)	89,401
Benefit Payments <sup>(1) (2)</sup>	(20,542)	(20,321)	(22,804)	(20,927)	(21,425)	(19,767)	(18,704)	(16,618)
<b>Net Change in Total OPEB Liability</b>	<b>25,456</b>	<b>(178,428)</b>	<b>(26,363)</b>	<b>57,628</b>	<b>57,320</b>	<b>21,300</b>	<b>(8,965)</b>	<b>107,347</b>
<b>Total OPEB Liability - Beginning</b>	<b>417,361</b>	<b>595,789</b>	<b>622,152</b>	<b>564,524</b>	<b>507,204</b>	<b>485,904</b>	<b>494,869</b>	<b>387,522</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$442,817</b>	<b>\$417,361</b>	<b>\$595,789</b>	<b>\$622,152</b>	<b>\$564,524</b>	<b>\$507,204</b>	<b>\$485,904</b>	<b>\$494,869</b>
<b>Plan Fiduciary Net Position</b>								
Contributions – Employer <sup>(2)</sup>	\$2,725	\$2,282	\$4,116	\$3,556	\$7,441	\$5,556	\$5,165	\$4,579
Contributions – Member	2,086	1,584	1,227	1,167	1,105	934	909	811
Benefit Payments <sup>(1) (2)</sup>	(20,542)	(20,321)	(22,804)	(20,927)	(21,425)	(19,767)	(18,704)	(16,618)
OPEB Plan Net Investment Income	68,440	53,772	(27,929)	128,244	704	28,373	42,950	59,614
OPEB Plan Administrative Expense	(117)	(123)	(125)	(118)	(123)	(117)	(104)	(105)
Other <sup>(4)</sup>	-	-	-	-	0	2	18	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>52,592</b>	<b>37,194</b>	<b>(45,515)</b>	<b>111,922</b>	<b>(12,298)</b>	<b>14,981</b>	<b>30,234</b>	<b>48,281</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>625,356</b>	<b>588,162</b>	<b>633,677</b>	<b>521,755</b>	<b>534,053</b>	<b>519,072</b>	<b>488,838</b>	<b>440,557</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>677,948</b>	<b>625,356</b>	<b>588,162</b>	<b>633,677</b>	<b>521,755</b>	<b>534,053</b>	<b>519,072</b>	<b>488,838</b>
<b>Net OPEB Liability – Ending (a) – (b)</b>	<b>\$(235,131)</b>	<b>\$(207,995)</b>	<b>\$7,627</b>	<b>\$(11,525)</b>	<b>\$42,769</b>	<b>\$(26,849)</b>	<b>\$(33,168)</b>	<b>\$6,031</b>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	153.10%	149.84%	98.72%	101.85%	92.42%	105.29%	106.83%	98.78%
Covered Payroll <sup>(3)</sup>	\$279,218	\$223,922	\$188,648	\$172,725	\$182,209	\$151,448	\$190,317	\$171,087
<b>Net OPEB Liability as a Percentage of Covered Employee Payroll</b>	<b>(84.21)%</b>	<b>(92.89)%</b>	<b>4.04%</b>	<b>(6.67)%</b>	<b>23.47%</b>	<b>(17.73)%</b>	<b>(17.43)%</b>	<b>3.53%</b>

<sup>(1)</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>(2)</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to \$814,756 for fiscal year 2024.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information. For 2021, 2022, 2023, and 2024, derived compensation based on pension contribution information, as there were no required employer contributions for the Insurance Plan for FYE 2021, FYE 2022, FYE 2023, and FYE 2024.

<sup>(4)</sup> Northern Trust Settlement.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

**Schedule of Changes in Employer's Net OPEB Liability - SPRS**  
**As of June 30 (\$ in Thousands)**

	2024	2023	2022	2021	2020	2019	2018	2017
<b>Total OBEF Liability</b>								
Service Cost	\$4,115	\$4,092	\$5,605	\$5,218	\$5,389	\$4,816	\$6,087	\$4,147
Interest on Total OPEB liability	15,508	19,608	18,592	17,984	17,600	17,724	18,432	17,993
Benefit Changes	-	-	4,975	101	-	-	34	-
Difference between Expected and Actual Experience	1,360	(98,425)	(5,952)	(6,318)	13,810	(14,295)	(23,320)	(573)
Assumption Changes	4,394	404	(21,937)	21,784	4,578	16,483	(358)	57,312
Benefit Payments <sup>(1) (2)</sup>	(11,668)	(13,682)	(14,729)	(13,812)	(13,988)	(13,187)	(13,097)	(12,123)
<b>Net Change in Total OPEB Liability</b>	<b>13,709</b>	<b>(88,003)</b>	<b>(13,446)</b>	<b>24,957</b>	<b>27,389</b>	<b>11,541</b>	<b>(12,222)</b>	<b>66,756</b>
<b>Total OPEB Liability - Beginning</b>	<b>263,450</b>	<b>351,453</b>	<b>364,899</b>	<b>339,942</b>	<b>312,553</b>	<b>301,012</b>	<b>313,234</b>	<b>246,478</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$277,159</b>	<b>\$263,450</b>	<b>\$351,453</b>	<b>\$364,899</b>	<b>\$339,942</b>	<b>\$312,553</b>	<b>\$301,012</b>	<b>\$313,234</b>
<b>Plan Fiduciary Net Position</b>								
Contributions – Employer <sup>(2)</sup>	\$9,788	\$8,755	\$9,343	\$9,381	\$12,873	\$12,623	\$8,535	\$7,862
Contributions – Member	396	348	230	209	196	176	155	131
Benefit Payments <sup>(1) (2)</sup>	(11,668)	(13,682)	(14,729)	(13,812)	(13,988)	(13,187)	(13,097)	(12,123)
OPEB Plan Net Investment Income	26,963	21,520	(10,847)	50,289	1,124	10,815	16,470	21,627
OPEB Plan Administrative Expense	(71)	(74)	(73)	(89)	(71)	(69)	(62)	(66)
Other <sup>(4)</sup>	-	-	-	-	-	1	8	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>25,408</b>	<b>16,867</b>	<b>(16,076)</b>	<b>45,978</b>	<b>134</b>	<b>10,359</b>	<b>12,009</b>	<b>17,431</b>
<b>Plan Fiduciary Net Position – Beginning</b>	<b>248,109</b>	<b>231,242</b>	<b>247,318</b>	<b>201,340</b>	<b>201,206</b>	<b>190,847</b>	<b>178,838</b>	<b>161,407</b>
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>273,517</b>	<b>248,109</b>	<b>231,242</b>	<b>247,318</b>	<b>201,340</b>	<b>201,206</b>	<b>190,847</b>	<b>178,838</b>
<b>Net OPEB Liability – Ending (a) – (b)</b>	<b>\$3,642</b>	<b>\$15,341</b>	<b>\$120,211</b>	<b>\$117,581</b>	<b>\$138,602</b>	<b>\$111,347</b>	<b>\$110,165</b>	<b>\$134,396</b>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	98.69%	94.18%	65.80%	67.78%	59.23%	64.38%	63.40%	57.09%
Covered Payroll <sup>(3)</sup>	\$71,992	\$65,830	\$48,600	\$47,155	\$48,231	\$48,780	\$50,064	\$48,873
<b>Net OPEB Liability as a Percentage of Covered Payroll</b>	<b>5.06%</b>	<b>23.30%</b>	<b>247.35%</b>	<b>249.35%</b>	<b>287.37%</b>	<b>228.26%</b>	<b>220.05%</b>	<b>274.99%</b>

<sup>(1)</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>(2)</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to (\$374,879) for fiscal year 2024.

<sup>(3)</sup> Based on derived compensation using the provided employer contribution information.

<sup>(4)</sup> Northern Trust Settlement.

This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.

## Notes to Schedule of Employers' Contributions

The actuarially determined contributions effective for fiscal year ended June 30, 2024, that is documented in the following schedule was calculated as of June 30, 2021. Based on the June 30, 2021, actuarial valuation report, the actuarial methods and assumptions used to calculate the required contributions follow.

<b>Notes to Schedule of Employers' OPEB Contributions</b>			
<b>Item</b>	<b>KERS</b>	<b>KERS</b>	<b>SPRS</b>
	<b>Nonhazardous</b>	<b>Hazardous</b>	
<b>Determined by the Actuarial Valuation as of:</b>	June 30, 2021	June 30, 2021	June 30, 2021
<b>Actuarial Cost Method:</b>	Entry Age Normal	Entry Age Normal	Entry Age Normal
<b>Asset Valuation Method:</b>	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.
<b>Amortization Method:</b>	Level Percent of Pay	Level Percent of Pay	Level Percent of Pay
<b>Amortization Period:</b>	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases.	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases.	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases.
<b>Payroll Growth Rate:</b>	0.00%	0.00%	0.00%
<b>Investment Return:</b>	6.25%	6.25%	6.25%
<b>Inflation:</b>	2.30%	2.30%	2.30%
<b>Salary Increase:</b>	3.30% to 15.30%, varies by service.	3.55% to 20.05%, varies by service.	3.55% to 16.05%, varies by service.
<b>Mortality:</b>	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.
<b>Healthcare Trend Rates:</b>			
<b>Pre-65</b>	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.
<b>Post-65</b>	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.

**Schedule of Employers' OPEB Contributions****Schedule of Employers' OPEB Contributions - KERS Nonhazardous**  
**As of June 30 (\$ in Thousands)**

Fiscal Year Ending <sup>(1)</sup>	Actuarially Determined Contribution <sup>(2)</sup>	Total Employer Contribution <sup>(3)</sup>	Contribution Deficiency (Excess)	Covered Payroll <sup>(4)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$129,764	\$136,628	\$(6,864)	\$1,923,825	7.10%
2023	123,952	129,108	(5,156)	1,653,492	7.81%
2022	135,809	140,694	(4,885)	1,437,132	9.79%
2021	161,936	186,676	(24,740)	1,452,345	12.85%
2020	183,821	175,007	8,814	1,482,431	11.81%
2019	187,978	178,964	9,014	1,515,953	11.81%
2018	132,365	136,419	(4,054)	1,573,898	8.67%
2017	133,024	152,356	(19,332)	1,593,097	9.56%
2016	121,899	135,816	(13,917)	1,529,249	8.88%
2015	\$130,455	\$135,940	(5,485)	\$1,544,234	8.80%

<sup>(1)</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>(2)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2021, actuarial valuation.

<sup>(3)</sup> Employer contributions do not include the expected implicit subsidy included in the Schedule of Changes in Employer's Net OPEB Liability - KERS Nonhazardous.

<sup>(4)</sup> Based on derived compensation using the provided employer contribution information.

**Schedule of Employers' OPEB Contributions - KERS Hazardous**  
**As of June 30 (\$ in Thousands)**

Fiscal Year Ending <sup>(1)</sup>	Actuarially Determined Contribution <sup>(2)</sup>	Total Employer Contribution <sup>(3)</sup>	Contribution Deficiency (Excess)	Covered Payroll <sup>(4)</sup>	Actual Contributions as a Percentage of Covered Payroll
2024	\$-	\$1,910	\$(1,910)	\$279,218	0.68%
2023	-	1,489	(1,489)	223,922	0.66%
2022	-	1,281	(1,281)	188,648	0.68%
2021	-	1,300	(1,300)	172,725	0.75%
2020	4,482	5,776	(1,294)	182,209	3.17%
2019	3,726	4,970	(1,244)	151,448	3.28%
2018	2,550	5,288	(2,738)	190,317	2.78%
2017	4,688	5,620	(932)	171,087	3.28%
2016	9,186	16,766	(7,580)	147,563	11.36%
2015	\$13,152	\$14,882	\$(1,730)	\$128,680	11.57%

<sup>(1)</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>(2)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2021, actuarial valuation.

<sup>(3)</sup> Employer contributions do not include the expected implicit subsidy included in the Schedule of Changes in Employer's Net OPEB Liability - KERS Hazardous.

<sup>(4)</sup> Based on derived compensation using the provided employer contribution information. For 2021, 2022, 2023, and 2024, derived compensation based on pension contribution information as there were no required employer contributions for the Insurance Plan for FYE 2021, FYE 2022, FYE 2023, and FYE 2024.



**Schedule of Employer's OPEB Contributions - SPRS**  
**As of June 30 (\$ in Thousands)**

<b>Fiscal Year Ending <sup>(1)</sup></b>	<b>Actuarially Determined Contribution <sup>(2)</sup></b>	<b>Total Employer Contribution <sup>(3)</sup></b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll <sup>(4)</sup></b>	<b>Actual Contributions as a Percentage of Covered Payroll</b>
2024	\$10,158	\$10,163	\$(5)	\$71,992	14.12%
2023	9,289	9,289	-	65,830	14.11%
2022	8,782	8,782	-	48,600	18.07%
2021	9,285	9,285	-	47,155	19.69%
2020	13,133	13,133	-	48,231	27.23%
2019	13,283	13,288	(5)	48,780	27.24%
2018	9,062	9,397	(335)	50,064	18.77%
2017	9,222	9,222	-	48,873	18.87%
2016	8,553	10,237	(1,684)	45,551	22.47%
2015	\$9,890	\$10,382	(492)	\$45,765	22.69%

<sup>(1)</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>(2)</sup> Actuarially determined contribution for fiscal year ended 2024 is based on the contribution rate calculated with the June 30, 2021, actuarial valuation.

<sup>(3)</sup> Employer contributions do not include the expected implicit subsidy included in the Schedule of Changes in Employer's Net OPEB Liability - SPRS.

<sup>(4)</sup> Based on derived compensation using the provided employer contribution information

## Money-Weighted Rates of Return

In accordance with GASB, KRS provides this additional disclosure regarding the money-weighted rate of return for the Pension and Insurance Plans. The money-weighted rate of return is a method of calculating period-by-period returns on 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, net of investment expenses, adjusted for the changing amounts actually invested.

See below for the money-weighted rates of return for multiple periods including fiscal year June 30, 2024, as calculated by the custodian bank, BNY Mellon:

Money - Weighted Rates of Return As of June 30						
	KERS Nonhazardous	KERS Hazardous	SPRS	KERS Nonhazardous	KERS Hazardous	SPRS
	Pension			Insurance		
2024	9.58%	11.17%	9.64%	11.14%	11.12%	11.01%
2023	7.07%	9.46%	7.53%	9.89%	9.26%	9.44%
2022	(5.29)%	(5.94)%	(5.80)%	(6.22)%	(4.43)%	(4.43)%
2021	22.53%	25.21%	21.70%	25.16%	24.99%	25.36%
2020	2.35%	0.96%	2.21%	0.98%	0.21%	0.64%
2019	5.77%	5.68%	5.67%	5.04%	5.56%	5.73%
2018	7.63%	8.69%	7.68%	7.95%	8.93%	9.39%
2017	12.08%	13.45%	12.50%	13.77%	13.75%	13.69%
2016	(0.97)%	(0.33)%	(1.76)%	N/A	N/A	N/A
2015	2.30%	1.84%	1.80%	N/A	N/A	N/A

*Note: This table is intended to show information for ten years; additional year's information will be displayed as it becomes available.*

## Schedule of Administrative Expenses

KPPA provides administrative support for KRS, and the County Employees Retirement System (CERS). Kentucky Revised Statute 61.505 11(a) requires all expenses incurred by KPPA on behalf of the Systems be prorated, assigned, or allocated to the Systems. KPPA works closely with the KRS and CERS Boards of Trustees to develop an allocation method that takes into consideration membership, assets under management, system specific costs, and statutory requirements. Total administrative costs incurred by KPPA for the fiscal year ended June 30, 2024, were \$47.3 million, of which \$16.9 million was allocated to KRS based on the hybrid allocation developed by the KPPA Board, the KRS Board, and the CERS Board.

Schedule of Administrative Expenses As of June 30, 2024 (\$ in Thousands)	
	2024
Salaries	\$6,533
Benefits	6,167
Professional Services	1,345
Information Technology	1181
Communications	282
Office & Equipment Rent	367
Travel/Conferences	43
Other Operating Expenses	107
Insurance Plans' Administration	922
<b>Total Administrative Expenses</b>	<b>\$16,947</b>

## Schedule of Direct Investment Expenses

Schedule of Direct Investment Expenses As of June 30, 2024 (\$ in Thousands)						
	Pension			Insurance		
	KERS		SPRS	KERS		SPRS
	Nonhazardous	Hazardous		Nonhazardous	Hazardous	
<b>Security Lending Fees</b>						
Securities Lending Fees, Expenses, and Rebates	\$3,808	\$1,059	\$671	\$1,402	\$487	\$214
<b>Total Security Lending</b>	<b>3,808</b>	<b>1,059</b>	<b>671</b>	<b>1,402</b>	<b>487</b>	<b>214</b>
<b>Contractual Services</b>						
Investment Management	18,759	5,641	2,566	8,913	4,439	1,764
Security Custody	397	97	62	234	94	38
Investment Consultant	238	59	38	96	40	16
Performance Fees	6,006	1,724	620	2,860	1,766	616
<b>Total Contractual Services</b>	<b>\$25,400</b>	<b>\$7,521</b>	<b>\$3,286</b>	<b>\$12,103</b>	<b>\$6,339</b>	<b>\$2,434</b>

## Schedule of Professional Consultant Fees

Schedule of Professional Consultant Fees As of June 30, 2024 (\$ in Thousands)	
	2024
Actuarial Services	\$146
Medical Review Services	500
Audit Services	83
Legal Counsel	509
Miscellaneous	107
<b>Total</b>	<b>\$1,345</b>

**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**

To the Members  
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 financial statements of Kentucky Retirement Systems (KRS), as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise the KRS basic financial statements, and have issued our report thereon dated --DATE--.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the KRS's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the KRS's internal control. Accordingly, we do not express an opinion on the effectiveness of the KRS's 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. 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 or significant deficiencies may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the KRS's financial statements are free from 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 financial statements. 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

**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*  
(Continued)**

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 results of that testing, and not to provide an opinion on the effectiveness of the KRS's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering KRS's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Blue & Co., LLC*

Lexington, Kentucky

--DATE--

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## **INVESTMENTS**

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## Investment Overview

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*This section of the report was compiled by Investment Staff using information provided by Wilshire Associates and the Bank of New York Mellon. Except otherwise noted, investment returns are based on investment asset fair value and calculated using time-weighted return calculation methodologies.*

Investment returns play an important role in terms of funding status of the Plans and continued funding of operations. The Investment Committee and the Board of Trustees are committed to maximizing the long-term total rate of return on investments, given the appropriate level of risk, for the sole benefit of the members in the Plans. The overall investment performance goal is to achieve an annualized rate of return which, when combined with employee and employer contributions, will meet or exceed the benefits and administrative funding requirements (see Investment Objectives later in this section).

Investments are managed by professional investment management firms and the Investment Staff based upon statutory investment authority and the investment policies adopted by the KRS Investment Committee and ratified by the KRS Board of Trustees. The Investment Staff is responsible for the administration of the investment assets of KRS and assists the Investment Committee in the formulation and implementation of investment policies and long-term investment strategy.

### Asset Allocation and Diversification

The Trustees recognize that asset allocation is the primary driver of long-term investment performance and therefore review asset allocation on a regular basis. Asset allocation is a process designed to construct an optimal long-term asset mix that achieves a specific set of investment objectives. The Investment Policy Statement (IPS) establishes the Plans' asset allocation policies which are designed to meet those objectives.

The asset allocation policies are adopted to provide for diversification of assets in an effort to maximize the long-term returns on investments consistent with prudent levels of market and economic risks. Of all the components of investment strategy formulation, the determination of asset allocation policies are the most important decision.

Risk is further diversified through active and passive management using multiple investment management firms and Investment Staff with a variety of investment styles. The total investment performance is not dependent upon the outcome of just one particular investment style or manager.

Investment Staff develops specific contractual investment guidelines for each external manager and each internally managed account that control the risk of high concentrations in a particular sector, industry, or security.

Diversification of the assets among various asset classes, investment management styles, and individual securities mitigates risks and enhances the potential of the investment portfolios to achieve their respective long-term objectives.

The following tables show each Plans' asset allocation targets as specified in the Investment Policy Statement and the actual asset allocation of the Plans as of June 30, 2024.

**IPS Target Allocation vs. Actual Asset Allocation  
As of June 30, 2024**

Pension	Public Equity	Private Equity	Core Fixed Income	Specialty Credit	Cash	Real Estate	Real Return	Total Plan
KERS Nonhazardous Policy Target Asset Allocation	30.00%	6.00%	27.00%	20.00%	2.00%	5.00%	10.00%	100.00%
KERS Nonhazardous Actual Asset Allocation	<b>32.44%</b>	<b>4.64%</b>	<b>26.33%</b>	<b>18.84%</b>	<b>4.20%</b>	<b>5.19%</b>	<b>8.36%</b>	<b>100.00%</b>
KERS Hazardous Policy Target Asset Allocation	40.00%	8.00%	10.00%	25.00%	2.00%	7.00%	8.00%	100.00%
KERS Hazardous Actual Asset Allocation	<b>42.66%</b>	<b>6.44%</b>	<b>11.36%</b>	<b>22.57%</b>	<b>3.39%</b>	<b>5.75%</b>	<b>7.83%</b>	<b>100.00%</b>
SPRS Policy Target Asset Allocation	30.00%	6.00%	27.00%	20.00%	2.00%	5.00%	10.00%	100.00%
SPRS Actual Asset Allocation	<b>32.07%</b>	<b>4.85%</b>	<b>25.83%</b>	<b>19.25%</b>	<b>3.90%</b>	<b>5.41%</b>	<b>8.69%</b>	<b>100.00%</b>

Insurance	Public Equity	Private Equity	Core Fixed Income	Specialty Credit	Cash	Real Estate	Real Return	Total Plan
KERS Nonhazardous Policy Target Asset Allocation	40.00%	8.00%	10.00%	25.00%	2.00%	7.00%	8.00%	100.00%
KERS Nonhazardous Actual Asset Allocation	<b>42.85%</b>	<b>6.66%</b>	<b>11.44%</b>	<b>22.60%</b>	<b>2.58%</b>	<b>5.73%</b>	<b>8.14%</b>	<b>100.00%</b>
KERS Hazardous Policy Target Asset Allocation	40.00%	8.00%	10.00%	25.00%	2.00%	7.00%	8.00%	100.00%
KERS Hazardous Actual Asset Allocation	<b>43.27%</b>	<b>7.31%</b>	<b>11.50%</b>	<b>22.85%</b>	<b>1.86%</b>	<b>6.34%</b>	<b>6.87%</b>	<b>100.00%</b>
SPRS Policy Target Asset Allocation	40.00%	8.00%	10.00%	25.00%	2.00%	7.00%	8.00%	100.00%
SPRS Actual Asset Allocation	<b>42.83%</b>	<b>8.01%</b>	<b>11.14%</b>	<b>22.83%</b>	<b>2.37%</b>	<b>5.96%</b>	<b>6.86%</b>	<b>100.00%</b>

*NOTE: The actual asset allocations are calculated by taking the fair value of each asset class as a percentage of total portfolio for the plans combined.*



## **Investment Strategies**

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### **Diversification**

The Pension and Insurance portfolios are diversified on several levels, including by asset class. Asset allocations are evaluated on a periodic basis and represent an efficient allocation to maximize returns and minimize risks at a level appropriate for each Plan. The individual asset classes are diversified through the use of multiple portfolios that are managed by the Investment Staff and external Investment Managers. Each Investment Manager is afforded discretion to diversify its portfolio(s) within the parameters established by their contractual guidelines and in accordance with the KRS IPS.

### **Rebalancing**

Proper implementation of the investment policy requires that a periodic adjustment, or rebalancing, of assets be made to ensure conformance with the IPS target levels. Such rebalancing is necessary to reflect sizable cash flows and performance imbalances among asset classes and individual investment portfolios. Should the actual portfolio rate fall outside of the IPS indicated range for a particular asset class, Investment Staff will direct rebalancing transactions to reallocate assets from the over-allocated asset class to the under-allocated asset class.

### **Performance Review**

At least quarterly, the Investment Committee, reviews the performance of the portfolios to determine compliance with the IPS. The Investment Committee also reviews a report created and presented by the Compliance Officer. The Compliance Officer performs tests daily, monthly, and quarterly to assure compliance with the restrictions imposed by the IPS.

### **Investment Consulting**

The Board employs qualified independent industry leading external consultants to assist in asset allocation studies, asset allocation recommendations, manager searches and other investment related consulting functions. Consultants also provide performance reports covering both the internally and externally managed assets.

## Investment Objectives

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The Trustees recognize that as long-term investors, the primary aim is that the portfolios meet their performance objectives in the long-term while understanding that this may not necessarily occur in the short-term. The overall investment performance goal is to achieve an annualized rate of return which, when combined with employee and employer contributions, will meet or exceed the benefits and administrative funding requirements. The following descriptions represent general standards of measurement that will be used as guidelines for the various classes of investments and managers of the Plans.

### Public Asset Class Allocations

**Short-term:** For periods less than five years or a full market cycle, the Asset Class Allocation should exceed the returns of the appropriate Index.

**Intermediate & Long-term:** For periods greater than five years or a full market cycle, the Asset Class Allocation should exceed the appropriate Index, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the Index.

### Individual Public Security Portfolios

**Short-term:** For periods less than five years or a full market cycle, individual portfolios should exceed the returns of their market goal or benchmark.

**Intermediate & Long-term:** For periods greater than five years or a full market cycle, individual portfolios should exceed the return of their market goal or benchmark, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.

### Alternative Assets

#### Private Equity

The Private Equity portfolio seeks long-term annualized net returns that exceed public equity investments (as represented by the Russell 3000 Index lagged 1 calendar quarter) by three percent.

#### Real Estate

The Real Estate portfolio seeks long-term annualized net returns that exceed the National Council of Real Estate Investment Fiduciaries Open End Diversified Core Equity Index lagged 1 calendar quarter.

#### Real Return

The Real Return portfolio seeks long term annualized net returns that exceed CPI + 300 basis points.

## Investment Results

For this report, total return information has been reported net of fees and expenses with audited data. All rates of return are calculated using time-weighted rates of return.

### Fiscal Year 2024 Results

Please see the tables below for the net returns reported for the fiscal year ended June 30, 2024.

Net Returns As of June 30, 2024 (\$ in Thousands)										
Pension	Fair Value	% of Total	1 Year		3 Years		5 Years		10 Years	
			Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>KERS Nonhazardous</b>	4,208,402	71.51%	9.50%	10.11%	3.55%	3.91%	6.86%	6.48%	6.08%	5.98%
<b>KERS Hazardous</b>	1,025,916	17.43%	11.12%	12.40%	4.58%	5.01%	7.65%	7.84%	6.71%	6.70%
<b>SPRS</b>	650,802	11.06%	9.62%	10.11%	3.99%	3.91%	6.95%	6.48%	6.04%	5.92%
<b>Total</b>	<b>\$5,885,120</b>	<b>100.00%</b>	<b>9.80%</b>	<b>10.51%</b>	<b>3.79%</b>	<b>4.03%</b>	<b>7.02%</b>	<b>6.56%</b>	<b>6.21%</b>	<b>6.02%</b>

Insurance		Plan	Index	Plan	Index	Plan	Index	Plan	Index	
<b>KERS Nonhazardous</b>	1,677,700	64.13%	11.07%	12.40%	4.63%	5.15%	7.68%	7.72%	6.54%	6.70%
<b>KERS Hazardous</b>	667,434	25.51%	11.15%	12.40%	5.06%	5.15%	7.75%	7.63%	6.79%	6.68%
<b>SPRS</b>	271,156	10.36%	11.02%	12.40%	5.09%	5.15%	7.92%	7.63%	6.97%	6.70%
<b>Total</b>	<b>\$2,616,290</b>	<b>100.00%</b>	<b>11.08%</b>	<b>12.40%</b>	<b>4.80%</b>	<b>5.15%</b>	<b>7.72%</b>	<b>7.72%</b>	<b>6.67%</b>	<b>6.70%</b>

## Benchmarks

KRS overall performance is measured relative to asset class benchmarks. The benchmark is calculated using a weighted average methodology that is consistent with the CFA Institute Global Investment Performance Standards (GIPS®). It is the product of the various component weights (i.e., asset classes' percentages) by their respective performance (returns). The various asset class benchmarks are shown below:

### Benchmarks and Allocation Guidelines As of June 30, 2024

Index	Asset Class	KERS Nonhazardous/ SPRS Pension	KERS Hazardous Pension/All Insurance
<b>Equity</b>			
MSCI ACWI	Public Equity	30.00%	40.00%
Russell 3000 + 300 bps (lagged one quarter)	Private Equity	6.00%	8.00%
<b>Fixed Income</b>			
Bloomberg US Aggregate	Core Fixed Income	27.00%	10.00%
50% Bloomberg US Corporate High Yield/50% Morningstar LSTA Leveraged Loan	Specialty Credit	20.00%	25.00%
FTSE 3-mos Treasury Bill	Cash	2.00%	2.00%
<b>Inflation Protected</b>			
NCREIF ODCE (one quarter lagged)	Real Estate	5.00%	7.00%
US CPI + 3%	Real Return	10.00%	8.00%

*Note: These benchmarks are intended to be objective, measurable, investable/replicable, and representative of the investment mandates. The benchmarks are developed from publicly available information and accepted by the investment advisor and Investment Staff as the neutral position consistent with the investment mandate and status. Investment Staff and our Consultant recommend the indices and benchmarks, which are reviewed and approved by the Investment Committee and ratified by the KRS Board.*

## Long-Term Results

The chart below displays the growth of \$1,000 over the course of 10 years given the performance of the portfolios compared to the benchmark and the actuarial assumed rate of return. As of June 30, 2024, the actuarial assumed rate of return for KERS Nonhazardous and SPRS Pension Plans was 5.25% and 6.25% for all other Plans.

Since June 30, 2015, fiscal year returns have ranged from minimum returns of (5.19)%, (5.95)%, and (4.63)% in KERS Nonhazardous, KERS Hazardous, and SPRS, respectively in fiscal year 2022 to maximum returns of 22.56%, 25.21%, and 21.70%, respectively, in fiscal year 2021. For fiscal year 2024, the annualized total net returns of each Plan exceeded their respective actuarially assumed rates of return. Translating these returns into dollars, a beginning balance of \$1,000 in fiscal year 2015 would have a balance of \$1,805 for the KERS Nonhazardous Pension Plan in fiscal year 2024. The KERS Nonhazardous annualized benchmark would have a balance of \$1,797.

<b>Pension Plan Growth</b>											
<b>As of June 30 (in Whole \$)</b>											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
<b>KERS Nonhazardous Plan</b>	2.38%	(0.68)%	12.09%	7.50%	5.73%	2.36%	22.56%	(5.19)%	6.96%	9.50%	
Performance BM	2.73%	0.71%	11.92%	6.84%	6.13%	1.18%	20.60%	(4.79)%	7.02%	10.11%	
Actuarial Assumed ROR	7.75%	7.50%	6.75%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	
Actual Performance	\$ 1,000	\$ 1,024	\$ 1,017	\$ 1,140	\$ 1,225	\$ 1,295	\$ 1,326	\$ 1,625	\$ 1,541	\$ 1,648	\$ 1,805
Performance Benchmark	1,000	1,027	1,035	1,158	1,237	1,313	1,328	1,602	1,525	1,632	1,797
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,236	\$ 1,301	\$ 1,370	\$ 1,442	\$ 1,517	\$ 1,597	\$ 1,681	\$ 1,769
<b>KERS Hazardous Plan</b>	1.87%	(0.24)%	13.44%	8.68%	5.68%	0.95%	25.21%	(5.95)%	9.46%	11.12%	
Performance BM	2.38%	(0.61)%	13.58%	7.04%	6.37%	0.16%	25.74%	(5.22)%	8.70%	12.40%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
Actual Performance	\$ 1,000	\$ 1,019	\$ 1,016	\$ 1,153	\$ 1,253	\$ 1,324	\$ 1,337	\$ 1,674	\$ 1,574	\$ 1,723	\$ 1,915
Performance Benchmark	1,000	1,024	1,018	1,156	1,237	1,316	1,318	1,657	1,571	1,707	1,919
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,903
<b>SPRS Plan</b>	1.87%	(1.49)%	12.50%	7.65%	5.71%	2.21%	21.70%	(4.63)%	7.58%	9.62%	
Performance BM	2.35%	(0.31)%	12.61%	6.84%	6.13%	1.18%	20.60%	(4.79)%	7.02%	10.11%	
Actuarial Assumed ROR	7.75%	7.50%	6.75%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	
Actual Performance	\$ 1,000	\$ 1,019	\$ 1,004	\$ 1,129	\$ 1,215	\$ 1,285	\$ 1,313	\$ 1,598	\$ 1,524	\$ 1,640	\$ 1,797
Performance Benchmark	1,000	1,024	1,020	1,149	1,228	1,303	1,318	1,590	1,514	1,620	1,784
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,236	\$ 1,301	\$ 1,370	\$ 1,442	\$ 1,517	\$ 1,597	\$ 1,681	\$ 1,769

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The chart below shows theoretical annual returns for the Insurance portfolio since June 30, 2015, fiscal year returns have ranged from minimum returns of (6.15)%, (4.53)%, and (4.50)% in KERS Nonhazardous, KERS Hazardous, and SPRS, respectfully in fiscal year 2022 to maximum returns of 25.16%, 24.97%, and 25.34%, respectfully, in fiscal year 2021. As of June 30, 2024, the KERS Insurance portfolio earned 11.07% versus the KERS annualized benchmark return of 12.40%. The chart below indicates that with a beginning balance of \$1,000 in fiscal year 2015, the KERS Insurance portfolio would have a balance of \$1,883 compared to the actuarially assumed rate of return balance of \$1,905 and the annualized benchmark return would have a balance of \$1,939 at the end of the 10-year period.

<b>Insurance Plan Growth</b>											
<b>As of June 30 (in Whole \$)</b>											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
<b>KERS Nonhazardous Plan</b>	1.44%	(0.50)%	13.78%	7.96%	4.95%	0.97%	25.16%	(6.15)%	9.87%	11.07%	
Performance BM	2.40%	(0.56)%	13.89%	7.04%	6.10%	0.35%	24.35%	(3.44)%	8.70%	12.40%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,014	\$ 1,009	\$ 1,148	\$ 1,240	\$ 1,301	\$ 1,314	\$ 1,644	\$ 1,543	\$ 1,696	\$ 1,883
Performance Benchmark	1,000	1,024	1,018	1,160	1,241	1,317	1,322	1,644	1,587	1,725	1,939
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905
<b>KERS Hazardous Plan</b>	1.82%	(0.25)%	13.76%	8.88%	5.61%	0.20%	24.97%	(4.53)%	9.29%	11.15%	
Performance BM	2.56%	(0.38)%	13.73%	7.04%	6.25%	(0.40)%	24.76%	(4.85)%	8.70%	12.40%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,018	\$ 1,016	\$ 1,155	\$ 1,258	\$ 1,329	\$ 1,331	\$ 1,664	\$ 1,588	\$ 1,736	\$ 1,929
Performance Benchmark	1,000	1,026	1,022	1,162	1,244	1,322	1,316	1,642	1,562	1,698	1,909
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905
<b>SPRS Plan</b>	1.90%	0.01%	13.70%	9.34%	5.74%	0.65%	25.34%	(4.50)%	9.46%	11.02%	
Performance BM	2.75%	(0.22)%	13.61%	7.04%	6.25%	(0.40)%	24.76%	(3.44)%	8.70%	12.40%	
Actuarial Assumed ROR	7.75%	7.50%	7.50%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.35%	
Actual Performance	\$ 1,000	\$ 1,019	\$ 1,019	\$ 1,159	\$ 1,267	\$ 1,340	\$ 1,348	\$ 1,690	\$ 1,614	\$ 1,767	\$ 1,961
Performance Benchmark	1,000	1,028	1,025	1,165	1,247	1,325	1,319	1,646	1,589	1,728	1,942
Actuarial Assumed ROR	\$ 1,000	\$ 1,078	\$ 1,158	\$ 1,245	\$ 1,323	\$ 1,406	\$ 1,494	\$ 1,587	\$ 1,686	\$ 1,791	\$ 1,905

## Public Equity

For the fiscal year, the KERS Pension Nonhazardous and Hazardous, and SPRS Pension Public Equity portfolios returned 17.22%, 17.05%, and 16.89%, respectively. The plans underperformed the benchmark return of 19.38%. The KERS Insurance Nonhazardous and Hazardous, and SPRS Insurance Public Equity portfolios also underperformed the benchmark, returning 16.95%, 16.94%, and 16.97%, respectively. Relative underperformance was primarily a result of positioning. Given the market fundamentals, the portfolios were allocated more heavily towards international markets during the beginning of the fiscal year than the benchmark. Further, during the period, markets were exceptionally narrow, especially within the domestic marketplace, creating a headwind for diversified investors.

During the 12 months ended June 30, 2024, the KERS Pension Nonhazardous and Hazardous U.S. equity portfolios returned 22.13% and 21.87%, versus the Russell 3000 return of 23.12%. The SPRS U.S. equity portion of the portfolio trailed the benchmark by 139bps, gaining 21.73%. During the same period, the KERS Nonhazardous, KERS Hazardous, and SPRS Insurance U.S. equity portfolios returned 21.86%, 21.83%, and 21.85%, respectively. Most individual investment mandates provided both solid absolute and relative performance. However, positioning slightly smaller in terms of market cap and anchoring more core in nature created headwinds for the portfolios, as both large caps and growth outperformed.

For the fiscal year, the KERS Pension Nonhazardous Non-U.S. equity mandates combined to underperform the MSCI ACWI Ex-US Index by 166bps (9.91% versus 11.57%), while the KERS Hazardous Non-U.S. equity portion of the portfolio returned 9.97%. The KERS Insurance Nonhazardous and Hazardous international portfolios returned 9.97% and 9.87%, respectively. Both the SPRS Pension and Insurance Non-U.S. equity portfolios returned 9.83%, underperforming the benchmark by 174bps. Within the international book, individual strategies struggled in relative terms. The correlation breakdown between earnings and stock prices made it difficult for active managers to distinguish themselves from the benchmark. Also, allocation created difficulties as growth style biased strategies faced a headwind, the opposite of their domestic counterparts.

### Return on Public Equity As of June 30, 2024

	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>4/1/1984</b>								
KERS Nonhazardous		17.22%	19.38%	4.23%	4.91%	10.23%	10.39%	8.19%	8.14%
KERS Hazardous		17.05%	19.38%	4.21%	4.91%	10.19%	10.39%	8.05%	8.14%
SPRS		16.89%	19.38%	4.17%	4.91%	10.21%	10.39%	7.90%	8.14%
<b>Insurance</b>	<b>7/1/1992</b>								
KERS Nonhazardous		16.95%	19.38%	4.22%	4.90%	10.23%	10.36%	8.24%	8.14%
KERS Hazardous		16.94%	19.38%	4.16%	4.90%	10.19%	10.36%	8.16%	8.14%
SPRS		16.97%	19.38%	4.09%	4.90%	10.16%	10.36%	8.14%	8.14%

Note: Current Pension and Insurance benchmarks are MSCI ACWI. Plan returns are reported gross of fees.

Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands) KERS Nonhazardous Pension		
Company	Shares	Fair Value
MSCI WORLD EX-US INDEX FUND A	4,399,032	\$128,341
MICROSOFT CORP	103,799	46,393
NVIDIA CORP	352,207	43,512
APPLE INC	205,488	43,280
ISHARES CORE S&P MIDCAP ETF	560,980	32,828
ALPHABET INC	159,877	29,198
AMAZON.COM INC	138,436	26,753
LAZARD EMERG MKT EQY-INST	1,138,900	21,172
META PLATFORMS INC	33,374	16,828
BERKSHIRE HATHAWAY INC	30,226	12,296
<b>Total</b>	<b>7,122,319</b>	<b>\$400,601</b>

Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands) KERS Nonhazardous Insurance		
Company	Shares	Fair Value
MSCI WORLD EX-US INDEX FUND B	1,432,874	\$45,957
MICROSOFT CORP	44,820	20,032
ISHARES CORE S&P MIDCAP ETF	340,602	19,932
NVIDIA CORP	148,339	18,326
APPLE INC	86,923	18,308
LAZARD EMERG MKT EQY-INST	674,625	12,541
AMAZON.COM INC	55,226	10,673
META PLATFORMS INC	13,215	6,664
ALPHABET INC	35,423	6,452
ALPHABET INC	29,469	5,405
<b>Total</b>	<b>2,861,516</b>	<b>\$164,290</b>

Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands) KERS Hazardous Pension		
Company	Shares	Fair Value
MICROSOFT CORP	27,696	\$12,379
ISHARES CORE S&P MIDCAP ETF	211,034	12,350
NVIDIA CORP	91,664	11,324
APPLE INC	53,713	11,313
LAZARD EMERG MKT EQY-INST	374,138	6,955
AMAZON.COM INC	34,126	6,595
META PLATFORMS INC	8,166	4,118
ALPHABET INC	21,889	3,987
ALPHABET INC	18,211	3,340
BERKSHIRE HATHAWAY INC	6,746	2,744
<b>Total</b>	<b>847,383</b>	<b>\$75,105</b>

Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands) KERS Hazardous Insurance		
Company	Shares	Fair Value
ISHARES CORE S&P MIDCAP ETF	140,725	\$8,235
MICROSOFT CORP	17,842	7,974
NVIDIA CORP	59,051	7,295
APPLE INC	34,602	7,288
LAZARD EMERG MKT EQY-INST	251,868	4,682
AMAZON.COM INC	21,984	4,248
META PLATFORMS INC	5,261	2,653
ALPHABET INC	14,101	2,569
ALPHABET INC	11,732	2,152
BERKSHIRE HATHAWAY INC	4,346	1,768
<b>Total</b>	<b>561,512</b>	<b>\$48,864</b>

Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands) SPRS Pension		
Company	Shares	Fair Value
ISHARES CORE S&P MIDCAP ETF	110,556	\$6,470
MICROSOFT CORP	12,724	5,687
NVIDIA CORP	42,112	5,202
APPLE INC	24,676	5,197
LAZARD EMERG MKT EQY-INST	191,090	3,552
AMAZON.COM INC	15,678	3,030
META PLATFORMS INC	3,752	1,892
ALPHABET INC	10,056	1,832
ALPHABET INC	8,366	1,534
BERKSHIRE HATHAWAY INC	3,099	1,261
<b>Total</b>	<b>422,109</b>	<b>\$35,657</b>

Top 10 Public Equity Holdings As of June 30, 2024 (\$ in Thousands) SPRS Insurance		
Company	Shares	Fair Value
ISHARES CORE S&P MIDCAP ETF	56,965	\$3,334
MICROSOFT CORP	7,149	3,195
NVIDIA CORP	23,660	2,923
APPLE INC	13,864	2,920
LAZARD EMERG MKT EQY-INST	105,578	1,963
AMAZON.COM INC	8,808	1,702
META PLATFORMS INC	2,108	1,063
ALPHABET INC	5,650	1,029
ALPHABET INC	4,700	862
BERKSHIRE HATHAWAY INC	1,741	708
<b>Total</b>	<b>230,223</b>	<b>\$19,699</b>

A complete list of holdings is located at <https://kyret.ky.gov/Investments/Investments-Library/Pages/Investments-Holdings.aspx>.



## Core Fixed Income

For the fiscal year, the Pension Core Fixed Income KERS Nonhazardous, Hazardous and SPRS portfolios returned 5.14%, 5.00% and 5.11%, respectively, outperforming the Bloomberg U.S. Aggregate benchmark with a return of 2.63%. For the Insurance Core Fixed Income, KERS Nonhazardous, Hazardous and SPRS portfolios returned 4.86%, 4.99% and 4.99%, respectively, also outperforming the benchmark. Relative outperformance was driven by the shorter duration profile and tactical allocation to front end investment grade credit as rates rose and credit spreads tightened during the first six months of the fiscal year.

Return on Core Fixed Income									
As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/2013</b>								
KERS Nonhazardous		5.14%	2.63%	0.24%	-3.02%	1.93%	-0.23%	N/A	1.35
KERS Hazardous		5.00%	2.63%	0.21%	-3.02%	1.89%	-0.23%	N/A	1.35
SPRS		5.11%	2.63%	0.30%	-3.02%	1.96%	-0.23%	N/A	1.35
<b>Insurance</b>	<b>7/1/2013</b>								
KERS Nonhazardous		4.86%	2.63%	0.05%	-3.02%	1.71%	-0.23%	N/A	1.35
KERS Hazardous		4.99%	2.63%	0.09%	-3.02%	1.71%	-0.23%	N/A	1.35
SPRS		4.99%	2.63%	0.09%	-3.02%	1.72%	-0.23%	N/A	1.35

*Note: Current Pension and Insurance benchmark is Bloomberg US Aggregate. Current Pension and Insurance benchmark is Bloomberg US Aggregate.*

Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)		
KERS Nonhazardous Pension		
Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	3,683,180	\$357,526
U S TREASURY NOTE	186,834,016	182,054
U S TREASURY BOND	84,745,231	75,981
JPMORGAN CHASE & CO	6,505,064	6,282
FHLMC POOL #SD-5297	4,584,404	4,657
NEXTERA ENERGY CAPITAL HOLDING	4,480,391	4,490
COMMIT TO PUR GNMA II JUMBOS	4,532,116	4,279
FHLMC POOL #SI-2096	5,004,519	4,124
U S TREASURY BILL	4,051,810	4,050
SOUTHERN CALIFORNIA EDISON CO	3,940,149	3,757
<b>Total</b>	<b>308,360,880</b>	<b>\$647,200</b>

Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)		
KERS Nonhazardous Insurance		
Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	612,711	\$59,476
U S TREASURY NOTE	2,194,682	1,942
U S TREASURY NOTE	1,357,560	1,386
U S TREASURY BOND	1,275,827	1,286
U S TREASURY NOTE	1,286,072	1,284
U S TREASURY NOTE	1,408,788	1,270
U S TREASURY BOND	1,232,049	1,200
U S TREASURY NOTE	1,155,206	1,162
U S TREASURY NOTE	1,124,469	1,133
U S TREASURY NOTE	1,193,395	1,101
<b>Total</b>	<b>12,840,759</b>	<b>\$71,240</b>

Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)		
KERS Hazardous Pension		
Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	387,277	\$37,593
U S TREASURY BOND	931,497	939
U S TREASURY NOTE	898,735	904
U S TREASURY NOTE	838,305	856
U S TREASURY BOND	842,966	821
U S TREASURY NOTE	738,119	746
U S TREASURY NOTE	732,810	732
U S TREASURY NOTE	686,148	690
U S TREASURY NOTE	699,486	631
U S TREASURY NOTE	669,487	617
<b>Total</b>	<b>7,424,830</b>	<b>\$44,529</b>

Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)		
KERS Hazardous Insurance		
Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	244,965	\$23,779
U S TREASURY NOTE	877,446	775
U S TREASURY NOTE	542,760	552
U S TREASURY NOTE	514,178	513
U S TREASURY BOND	510,082	511
U S TREASURY NOTE	563,241	502
U S TREASURY BOND	492,580	472
U S TREASURY NOTE	461,858	463
U S TREASURY NOTE	449,569	445
U S TREASURY NOTE	477,126	439
<b>Total</b>	<b>5,133,805</b>	<b>\$28,451</b>

Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)		
SPRS Pension		
Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	558,856	\$54,248
U S TREASURY BOND	1,344,189	1,355
U S TREASURY NOTE	1,296,912	1,305
U S TREASURY NOTE	1,209,708	1,236
U S TREASURY BOND	1,216,435	1,185
U S TREASURY NOTE	1,065,136	1,077
U S TREASURY NOTE	1,057,475	1,056
U S TREASURY NOTE	990,140	995
U S TREASURY NOTE	1,009,388	910
U S TREASURY NOTE	966,097	891
<b>Total</b>	<b>10,714,336</b>	<b>\$64,258</b>

Top 10 Core Fixed Income Holdings As of June 30, 2024 (\$ in Thousands)		
SPRS Insurance		
Issuer	Shares	Fair Value
ISHARES CORE U.S. AGGREGATE	96,406	\$9,358
U S TREASURY NOTE	345,318	306
U S TREASURY NOTE	213,602	218
U S TREASURY BOND	200,742	202
U S TREASURY NOTE	202,354	202
U S TREASURY NOTE	221,663	200
U S TREASURY BOND	193,854	189
U S TREASURY NOTE	181,764	183
U S TREASURY NOTE	176,927	178
U S TREASURY NOTE	187,772	173
<b>Total</b>	<b>2,020,402</b>	<b>\$11,209</b>

Note: A complete list of holdings is located at <https://kyret.ky.gov/Investments/Investments-Library/Pages/Investments-Holdings.aspx>.

## Specialty Credit

For the fiscal year, the Pension Specialty Credit KERS Nonhazardous, Hazardous and SPRS portfolios returned 12.98%, 12.96% and 12.83%, respectively, outperforming the custom benchmark which returned 10.81%. For the Insurance Specialty Credit, KERS Nonhazardous, Hazardous and SPRS portfolios returned 12.89%, 14.37% and 13.60%, respectively, also outperforming the benchmark. Outperformance was a result of credit spreads continuing to tighten as well as an increase in interest rates as the majority of holdings in the private sector is floating rate.

Return on Specialty Credit									
As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/2017</b>								
KERS Nonhazardous		12.98%	10.81%	7.38%	3.92%	7.74%	4.76%	6.40%	N/A
KERS Hazardous		12.96%	10.81%	7.70%	3.92%	7.64%	4.76%	6.31%	N/A
SPRS		12.83%	10.81%	7.06%	3.92%	7.26%	4.76%	6.17%	N/A
<b>Insurance</b>	<b>7/1/2017</b>								
KERS Nonhazardous		12.89%	10.81%	7.77%	3.92%	7.47%	4.76%	6.21%	N/A
KERS Hazardous		14.37%	10.81%	8.90%	3.92%	8.26%	4.76%	6.61%	N/A
SPRS		13.60%	10.81%	8.32%	3.92%	7.91%	4.76%	6.43%	N/A

*Note: Current Pension and Insurance benchmark is 50% Bloomberg US Corporate High Yield/50% Morningstar LSTA Leveraged Loan. Plan returns are reported gross of fees.*

**Top 10 Specialty Credit Holdings  
As of June 30, 2024 (\$ in Thousands)  
KERS Nonhazardous Pension**

Issuer	Fair Value
CCO HOLDINGS LLC / CCO HO 144A	\$3,450
CAESARS ENTERTAINMENT INC 144A	3,388
TENET HEALTHCARE CORP	2,749
TRANSDIGM INC 144A	2,672
CLOUD SOFTWARE GROUP INC 144A	2,645
ALLIANT HOLDINGS INTERMED 144A	2,535
OLYMPUS WATER US HOLDING 144A	2,113
CLEAR CHANNEL OUTDOOR HOL 144A	1,921
EQM MIDSTREAM PARTNERS LP 144A	1,914
VISTRA OPERATIONS CO LLC 144A	1,884
<b>Total</b>	<b>\$25,271</b>

**Top 10 Specialty Credit Holdings  
As of June 30, 2024 (\$ in Thousands)  
KERS Nonhazardous Insurance**

Issuer	Fair Value
CLOUD SOFTWARE GROUP INC 144A	\$610
SPDR BLOOMBERG SHORT TERM HI	556
MEDLINE BORROWER LP 144A	521
ASURION 12/20 B8 COV-LITE TL	504
TRANSDIGM INC 144A	471
INTERNATIONAL GAME TECHNO 144A	468
ARDAGH METAL PACKAGING FI 144A	467
CLEARWAY ENERGY OPERATING 144A	466
LADDER CAPITAL FINANCE HO 144A	454
VISTRA OPERATIONS CO LLC 144A	448
<b>Total</b>	<b>\$4,965</b>

**Top 10 Specialty Credit Holdings  
As of June 30, 2024 (\$ in Thousands)  
KERS Hazardous Pension**

Issuer	Fair Value
SPDR BLOOMBERG SHORT TERM HI	\$443
CLOUD SOFTWARE GROUP INC 144A	338
MEDLINE BORROWER LP 144A	290
ARAMARK 3/24 B8 TL	289
ARDAGH METAL PACKAGING FI 144A	255
CLEARWAY ENERGY OPERATING 144A	255
HUBBAY MINERALS INC 144A	253
TRANSDIGM INC 144A	249
AECOM 4/24 TLB	246
SELECT MEDICAL CORP 144A	237
<b>Total</b>	<b>\$2,855</b>

**Top 10 Specialty Credit Holdings  
As of June 30, 2024 (\$ in Thousands)  
KERS Hazardous Insurance**

Issuer	Fair Value
CLOUD SOFTWARE GROUP INC 144A	\$149
MEDLINE BORROWER LP 144A	129
SPDR BLOOMBERG SHORT TERM HI	117
ARDAGH METAL PACKAGING FI 144A	116
TRANSDIGM INC 144A	115
CLEARWAY ENERGY OPERATING 144A	115
LADDER CAPITAL FINANCE HO 144A	114
VISTRA OPERATIONS CO LLC 144A	110
SELECT MEDICAL CORP 144A	108
HUBBAY MINERALS INC 144A	108
<b>Total</b>	<b>\$1,181</b>

**Top 10 Specialty Credit Holdings  
As of June 30, 2024 (\$ in Thousands)  
SPRS Pension**

Issuer	Fair Value
CLOUD SOFTWARE GROUP INC 144A	\$248
SPDR BLOOMBERG SHORT TERM HI	235
MEDLINE BORROWER LP 144A	211
CLEARWAY ENERGY OPERATING 144A	186
ARDAGH METAL PACKAGING FI 144A	184
HUBBAY MINERALS INC 144A	184
TRANSDIGM INC 144A	183
SELECT MEDICAL CORP 144A	174
ZOOMINFO TECHNOLOGIES LLC 144A	170
DISH NETWORK CORP 144A	169
<b>Total</b>	<b>\$1,944</b>

**Top 10 Specialty Credit Holdings  
As of June 30, 2024 (\$ in Thousands)  
SPRS Insurance**

Issuer	Fair Value
ARAMARK 3/24 B8 TL	\$84
AECOM 4/24 TLB	67
BURGER KING/RESTAURANT BRANDS	66
CLOUD SOFTWARE GROUP INC 144A	62
HERTZ 6/21 TLB	55
MEDLINE INDUSTRIES/MOZART 6/24	54
MEDLINE BORROWER LP 144A	53
HCA INC	50
SPDR BLOOMBERG SHORT TERM HI	49
U S TREASURY NOTE	48
<b>Total</b>	<b>\$588</b>

Note: A complete list of holdings is located at <https://kyret.ky.gov/Investments/Investments-Library/Pages/Investments-Holdings.aspx>.

## Private Equity

For the fiscal year, the Pension Private Equity portfolio posted gross returns ranging from 2.06% for KERS Nonhazardous to 7.83% for SPRS, while the Insurance Private Equity portfolio gross returns ranged from 7.09% for SPRS to 8.45% for KERS Nonhazardous. The comparative benchmark for all plans was 3.77% for the fiscal year. The Investment Committee acknowledges the difficulty in assessing short-term performance for Private Equity. Performance is typically based on quarterly estimates of each underlying business's value and managers are often slow to mark valuations up or down. This can distort relative performance against a public market benchmark during periods when the index moves dramatically. A better indication of program performance would be the mid- to longer-term time periods because more underlying company holdings have likely transacted at a specific (rather than estimated) valuation. The below chart provides the gross returns for the longer term time periods.

Return on Private Equity As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/2002</b>								
KERS Nonhazardous		2.06%	3.77%	1.34%	7.82%	11.56%	12.28%	10.17%	15.46%
KERS Hazardous		5.68%	3.77%	11.23%	7.82%	15.08%	12.28%	12.99%	15.46%
SPRS		7.83%	3.77%	7.92%	7.82%	15.34%	12.28%	12.30%	15.46%
<b>Insurance</b>	<b>7/1/2002</b>								
KERS Nonhazardous		8.45%	3.77%	18.09%	7.82%	17.41%	12.28%	13.65%	15.46%
KERS Hazardous		7.63%	3.77%	14.34%	7.82%	14.69%	12.28%	13.88%	15.46%
SPRS		7.09%	3.77%	14.59%	7.82%	15.31%	12.28%	14.16%	15.46%

Note: Current Pension and Insurance benchmark is Russell 3000 + 3%, lagged 1 quarter. Current Pension and Insurance benchmark is Russell 3000 + 3%, lagged 1 quarter.

## Real Estate

For the fiscal year, the Pension and Insurance Real Estate portfolios saw gross returns ranging from (9.80)% in the KERS Hazardous insurance plan to (8.40)% in the KERS Nonhazardous pension plan, exceeding the benchmark return of (12.0)% by all plans.

Return on Real Estate As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/1984</b>								
KERS Nonhazardous		(8.40)%	(12.00)%	5.75%	2.47%	7.51%	2.56%	7.59%	5.82%
KERS Hazardous		(9.24)%	(12.00)%	4.85%	2.47%	6.66%	2.56%	7.77%	5.82%
SPRS		(9.07)%	(12.00)%	5.01%	2.47%	6.79%	2.56%	7.75%	5.82%
<b>Insurance</b>	<b>5/1/2009</b>								
KERS Nonhazardous		(8.61)%	(12.00)%	4.57%	2.47%	6.56%	2.56%	7.72%	5.82%
KERS Hazardous		(9.80)%	(12.00)%	4.03%	2.47%	6.22%	2.56%	7.55%	5.82%
SPRS		(9.78)%	(12.00)%	4.05%	2.47%	6.24%	2.56%	7.55%	5.82%

Note: Current Pension and Insurance benchmark is the National Council of Real Estate Investment Fiduciaries Open End Diversified Core Equity (NCREIFODCE) Index, lagged 1 quarter. Plan returns are reported gross of fees.

## Real Return

For the fiscal year, the Pension and Insurance Real Return portfolio returns ranged from 13.71% (gross) in the SPRS insurance plan to 17.56% (gross) in the KERS Nonhazardous pension plan. All plan returns exceeded the benchmark return of 6.27%. The below chart provides returns for longer time periods for each plan.

Return on Real Return As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
Pension	7/1/2011	Plan	Index	Plan	Index	Plan	Index	Plan	Index
KERS Nonhazardous		17.56%	6.27%	11.70%	7.11%	10.36%	6.70%	6.17%	4.12%
KERS Hazardous		15.72%	6.27%	10.45%	7.11%	9.00%	6.70%	5.58%	4.12%
SPRS		14.54%	6.27%	10.86%	7.11%	9.16%	6.70%	5.58%	4.12%
Insurance	7/1/2011								
KERS Nonhazardous		14.52%	6.27%	10.29%	6.77%	9.61%	6.72%	5.75%	4.18%
KERS Hazardous		14.04%	6.27%	8.92%	6.77%	8.30%	6.72%	5.12%	4.18%
SPRS		13.71%	6.27%	9.02%	6.77%	8.26%	6.72%	5.11%	4.18%

*Note: Current Pension and Insurance benchmark is US CPI + 3%. Plan returns are reported gross of fees.*

## Cash

For the fiscal year, the Pension Cash KERS Nonhazardous, Hazardous and SPRS portfolios each returned 5.33% underperforming the FTSE 3-Month US Treasury Bill benchmark which returned 5.64%. For the Insurance Cash, KERS Nonhazardous, Hazardous and SPRS portfolios each returned 5.35% also underperforming the benchmark by 0.29%.

Return on Cash As of June 30, 2024									
	Inception Date	1 Year		3 Years		5 Years		10 Years	
Pension	1/1/1988	Plan	Index	Plan	Index	Plan	Index	Plan	Index
KERS Nonhazardous		5.33%	5.64%	2.96%	3.17%	2.18%	2.22%	1.66%	1.53%
KERS Hazardous		5.33%	5.64%	2.96%	3.17%	2.18%	2.22%	1.66%	1.53%
SPRS		5.33%	5.64%	2.96%	3.17%	2.18%	2.22%	1.66%	1.53%
Insurance	7/1/1992								
KERS Nonhazardous		5.35%	5.64%	2.96%	3.17%	2.08%	2.22%	1.54%	1.53%
KERS Hazardous		5.35%	5.64%	2.96%	3.17%	2.08%	2.22%	1.54%	1.53%
SPRS		5.35%	5.64%	2.96%	3.17%	2.08%	2.22%	1.54%	1.53%

*Note: Current Pension and Insurance benchmarks are Global Equity: MSCI ACWI; US Equity: Russell 3000; Non-US Equity: MSCI ACWI Ex-US. Plan returns are reported gross of fees.*

## Additional Schedules

The following schedules contain information on the assets under management for each firm KRS employs and assets managed by Investment Staff, external investment-related expenses, commissions paid, and portfolio summaries for each of the Pension and Insurance Plans for the fiscal year ended June 30, 2024.

Investment Managers & Assets Under Management by Plan and Asset Class As of June 30, 2024 (\$ in Thousands)							
Advisor/Asset Class	Pension			Insurance			KRS Total
	KERS	KERS Hazardous	SPRS	KERS	KERS Hazardous	SPRS	
<b>Core Fixed Income</b>	<b>\$1,285,074</b>	<b>\$151,279</b>	<b>\$193,483</b>	<b>\$235,110</b>	<b>\$89,150</b>	<b>\$36,610</b>	<b>\$1,990,706</b>
Lord Abbett & Co.	550	58	84	119	48	19	878
Loomis, Sayles & Company Core	357,744	37,616	54,281	60,389	24,144	9,502	543,676
NISA Investment Advisors	392,157	41,234	59,503	71,908	28,749	11,314	604,865
Internally Managed by KPPA	534,623	72,371	79,615	102,694	36,209	15,775	841,287
<b>Private Equity</b>	<b>\$181,975</b>	<b>\$63,224</b>	<b>\$30,418</b>	<b>\$107,909</b>	<b>\$45,408</b>	<b>\$20,455</b>	<b>\$449,389</b>
Ares	-	1,225	386	-	784	488	2,883
Bay Hills	55,121	9,981	4,577	3,818	4,944	2,754	81,195
Black Diamond	-	3,609	1,138	-	3,006	1,871	9,624
Blackstone	7	845	-	1	860	410	2,123
Crestview	9,194	2,989	1,181	637	1,497	878	16,376
CVC	-	1,359	429	-	855	532	3,175
DAG Ventures	9,096	1,151	599	630	302	134	11,912
Harvest Partners	-	1,811	36	4,690	2,990	1,189	10,716
H.I.G.	1,004	916	197	69	784	411	3,381
Horsley Bridge	28,443	3,597	1,872	1,970	938	417	37,237
Kayne Anderson	-	1,721	-	5,136	3,133	1,214	11,204
Keyhaven	3,023	1,285	483	209	851	512	6,363
Leonard Green	304	2,971	20	3,442	4,483	1,949	13,169
Levine Leichtman	-	2,751	36	7,863	4,869	1,903	17,422
Middle Ground	17,354	7,711	1,997	24,967	5,257	2,069	59,355
New State	1,508	434	174	647	305	119	3,187
Strategic Value Partners	10,414	5,687	1,198	13,327	4,609	1,411	36,646
Triton	-	1,019	321	-	652	406	2,398
Vista	762	2,747	50	4,741	4,289	1,788	14,377
Internally Managed by KPPA	45,745	9,415	15,724	35,762	-	-	106,646
<b>Public Equity</b>	<b>\$1,365,158</b>	<b>\$437,656</b>	<b>\$208,715</b>	<b>\$718,838</b>	<b>\$288,762</b>	<b>\$116,124</b>	<b>\$3,135,253</b>
American Century Investments	77,532	25,470	13,009	45,712	17,066	7,154	185,943
Axiom	18,586	6,106	3,119	11,138	4,158	1,743	44,850
BlackRock	128,328	38,638	13,612	45,951	24,843	8,513	259,885
Franklin Templeton	61,516	20,209	10,322	36,708	13,705	5,745	148,205
JP Morgan Emerging Markets	25,040	8,226	4,201	14,886	5,558	2,330	60,241
Lazard Asset Management	91,631	30,102	15,374	54,306	20,275	8,499	220,187
LSV Asset Management	95,600	31,405	16,040	56,773	21,196	8,885	229,899
Next Century	18,583	6,991	3,662	11,187	4,622	1,871	46,916
Northern Trust	47,098	17,717	9,282	28,133	11,624	4,705	118,559
Pzena Emerging Markets	31,553	10,365	5,294	18,645	6,961	2,918	75,736
River Road Asset Management	47,420	17,839	9,345	30,251	12,499	5,059	122,413
Westfield Capital	60,761	22,857	11,975	39,560	16,345	6,616	158,114
Internally Managed by KPPA	661,510	201,731	93,480	325,588	129,910	52,086	1,464,305
<b>Real Estate</b>	<b>\$218,209</b>	<b>\$58,871</b>	<b>\$35,140</b>	<b>\$96,043</b>	<b>\$42,227</b>	<b>\$16,125</b>	<b>\$466,615</b>
Barings Real Estate	14,200	3,884	1,642	4,626	3,460	1,323	29,135
Fundamental Partners	9,753	2,668	1,128	3,177	2,376	908	20,010

**KRS DRAFT 12-4-2024**

Harrison Street	67,681	12,037	16,927	35,634	11,624	4,452	148,355
Lubert-Adler	1,607	1,206	461	1,321	989	375	5,959
Mesa West	8,158	3,821	1,240	820	613	234	14,886
Patron	2,774	759	321	5,990	5,033	1,891	16,768
Prologis	53,416	14,612	6,176	16,059	12,010	4,591	106,864
Rubenstein	0	323	116	339	254	96	1,128
Stockbridge	24,959	4,969	2,407	7,728	5,451	2,089	47,603
Walton Street	4,206	1,221	413	632	417	166	7,055
Internally Managed by KPPA	31,455	13,371	4,309	19,717	-	-	68,852
<b>Real Return</b>	<b>\$351,337</b>	<b>\$79,593</b>	<b>\$56,449</b>	<b>\$135,281</b>	<b>\$45,320</b>	<b>\$18,428</b>	<b>\$686,408</b>
AMERRA	0	2,964	1,500	3,144	2,549	958	11,115
Arctos	13,082	335	3,354	7,715	336	335	25,157
BTG Pactual	0	1,426	660	1,657	1,123	426	5,292
IFM	12,201	3,758	1,457	5,338	3,003	1,012	26,769
Maritime Partners	29,823	3,242	5,835	12,893	2,482	1,297	55,572
Prisma	18,812	4,908	2,037	6,740	4,475	1,678	38,650
Saba Capital	47,949	7,992	7,991	9,590	5,328	1,066	79,916
Tortoise	57,403	14,378	5,741	16,969	7,760	3,029	105,280
Internally Managed by KPPA	172,067	40,590	27,874	71,235	18,264	8,627	338,657
<b>Specialty Credit</b>	<b>\$792,754</b>	<b>\$231,540</b>	<b>\$125,292</b>	<b>\$379,231</b>	<b>\$152,514</b>	<b>\$61,910</b>	<b>\$1,743,241</b>
Adams Street	54,925	16,056	6,699	22,765	11,561	4,557	116,563
Arrowmark	101,710	31,533	12,563	50,213	31,215	11,527	238,761
Blue Torch	28,404	8,534	3,521	12,015	6,316	2,447	61,237
Benefit Street Partners	18,726	6,726	1,739	10,461	6,317	2,274	46,243
CapitalSpring	16,062	5,769	1,491	7,884	4,761	1,714	37,681
Cerberus	29,513	10,600	2,740	14,485	8,747	3,149	69,234
Columbia Threadneedle Investments	170,117	48,243	34,585	85,062	21,323	8,672	368,002
Manulife Investment Management	38,825	19,021	7,965	24,032	1,035	5,447	96,325
Marathon Asset Management	139,745	23,610	12,617	37,253	22,291	7,696	243,212
Shenkman Capital Management	120,702	37,346	19,855	74,034	15,504	6,571	274,012
Waterfall Asset Management	51,012	15,836	19,381	28,623	15,954	5,159	135,965
White Oak Global Advisors	23,013	8,266	2,136	12,404	7,490	2,697	56,006
<b>Other</b>	<b>\$13,894</b>	<b>\$3,754</b>	<b>\$1,305</b>	<b>\$5,288</b>	<b>\$4,053</b>	<b>\$1,504</b>	<b>\$29,798</b>
<b>Total Assets Under Management</b>	<b>\$4,208,401</b>	<b>\$1,025,917</b>	<b>\$650,802</b>	<b>\$1,677,700</b>	<b>\$667,434</b>	<b>\$271,156</b>	<b>\$8,501,410</b>



**External Investment Expenses - Pension Asset Class/Type Breakdown**

For the fiscal year ended June 30, 2024 (\$ in Thousands)

<b>KERS Nonhazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$2,137	\$387	\$625	\$3,881	\$-	\$873	\$1,417	\$9,320
Performance/Incentive Fees	-	492	34	6,526	-	(66)	(979)	6,007
Securities Lending Fees	27	-	25	17	-	6	-	75
Securities Lending Fee Rebate	1,804	-	952	786	-	191	-	3,733
Miscellaneous Fees & Expenses	40	506	52	7,233	-	392	854	9,077
Administration	-	-	-	-	361	-	-	361
Consultant Fees	-	-	-	-	238	-	-	238
Custodial Fees	-	-	-	-	397	-	-	397
	<b>\$4,008</b>	<b>\$1,385</b>	<b>\$1,688</b>	<b>\$18,443</b>	<b>\$996</b>	<b>\$1,396</b>	<b>\$1,292</b>	<b>\$29,208</b>

<b>KERS Hazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$731	\$306	\$83	\$1,110	\$-	\$202	\$380	\$2,812
Performance/Incentive Fees	-	191	4	1,807	-	(9)	(269)	1,724
Securities Lending Fees	9	-	3	5	-	2	-	19
Securities Lending Fee Rebate	636	-	117	239	-	48	-	1,040
Miscellaneous	13	240	6	2,174	-	65	238	2,736
Administration	-	-	-	-	93	-	-	93
Consultant Fees	-	-	-	-	59	-	-	59
Custodial Fees	-	-	-	-	97	-	-	97
	<b>\$1,389</b>	<b>\$737</b>	<b>\$213</b>	<b>\$5,335</b>	<b>\$249</b>	<b>\$308</b>	<b>\$348</b>	<b>\$8,580</b>

<b>SPRS</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$382	\$68	\$101	\$525	\$-	\$209	\$223	\$1,508
Performance/Incentive Fees	-	26	5	739	-	(36)	(114)	620
Securities Lending Fees	5	-	4	3	-	1	-	13
Securities Lending Fee Rebate	329	-	151	159	-	19	-	658
Miscellaneous Fees & Expenses	6	68	8	834	-	80	100	1,096
Administration	-	-	-	-	(38)	-	-	(38)
Consultant Fees	-	-	-	-	38	-	-	38
Custodial Fees	-	-	-	-	62	-	-	62
	<b>\$722</b>	<b>\$162</b>	<b>\$269</b>	<b>\$2,260</b>	<b>\$62</b>	<b>\$273</b>	<b>\$209</b>	<b>\$3,957</b>

*NOTE: Miscellaneous expenses include Partnership Expenses, Commissions on Future Contracts, Fee for Long balance, and etc. The Governmental Accounting Standards Board recognizes that it may not be possible or cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses of the Plan. KRS has displayed all investment related fees and expenses identifiable and captured by our custodial bank, BNY Mellon and Investment staff.*

**External Investment Expenses - Insurance Asset Class/Type Breakdown**

For the fiscal year ended June 30, 2024 (\$ in Thousands)

<b>KERS Nonhazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$1,286	\$478	\$132	\$1,734	\$-	\$505	\$580	\$4,715
Performance/Incentive Fees	-	448	8	2,753	-	(53)	(296)	2,860
Securities Lending Fees	14	-	6	10	-	2	-	32
Securities Lending Fee Rebate	678	-	189	440	-	63	-	1,370
Miscellaneous Fees & Expenses	21	438	11	3,197	-	192	282	4,141
Administration	-	-	-	-	57	-	-	57
Consultant Fees	-	-	-	-	96	-	-	96
Custodial Fees	-	-	-	-	234	-	-	234
	<b>\$1,999</b>	<b>\$1,364</b>	<b>\$346</b>	<b>\$8,134</b>	<b>\$387</b>	<b>\$709</b>	<b>\$566</b>	<b>\$13,505</b>

<b>KERS Hazardous</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$501	\$314	\$54	\$828	\$-	\$155	\$356	\$2,208
Performance/Incentive Fees	-	349	3	1,641	-	(6)	(221)	1,766
Securities Lending Fees	6	-	2	2	-	1	-	11
Securities Lending Fee Rebate	275	-	76	96	-	29	-	476
Miscellaneous Fees & Expenses	8	210	4	1,612	-	53	211	2,098
Administration	-	-	-	-	133	-	-	133
Consultant Fees	-	-	-	-	40	-	-	40
Custodial Fees	-	-	-	-	94	-	-	94
	<b>\$790</b>	<b>\$873</b>	<b>\$139</b>	<b>\$4,179</b>	<b>\$267</b>	<b>\$232</b>	<b>\$346</b>	<b>\$6,826</b>

<b>SPRS</b>	<b>Public Equity</b>	<b>Private Equity</b>	<b>Fixed Income</b>	<b>Specialty Credit</b>	<b>Cash</b>	<b>Real Return</b>	<b>Real Estate</b>	<b>Total</b>
Investment Advisory Fees	\$207	\$135	\$21	\$313	\$-	\$66	\$135	\$877
Performance/Incentive Fees	-	109	1	595	-	(5)	(84)	616
Securities Lending Fees	3	-	1	1	-	0	-	5
Securities Lending Fee Rebate	112	-	30	56	-	11	-	209
Miscellaneous	3	99	2	631	-	24	81	840
Administration	-	-	-	-	47	-	-	47
Consultant Fees	-	-	-	-	16	-	-	16
Custodial Fees	-	-	-	-	38	-	-	38
	<b>\$325</b>	<b>\$343</b>	<b>\$55</b>	<b>\$1,596</b>	<b>\$101</b>	<b>\$96</b>	<b>\$132</b>	<b>\$2,648</b>

*NOTE: Miscellaneous expenses include Partnership Expenses, Commissions on Future Contracts, Fee for Long balance, and etc. The Governmental Accounting Standards Board recognizes that it may not be possible or cost-beneficial to separate certain investment expenses from either the related investment income or the general administrative expenses of the Plan. KRS has displayed all investment related fees and expenses identifiable and captured by our custodial bank, BNY Mellon and Investment Staff.*

<b>External Expenses</b>						
For the fiscal year ended June 30, 2024 (\$ in Thousands)						
Expense	KERS Nonhazardous		KERS Hazardous		SPRS	
	Fees Paid	Share of Total	Fees Paid	Share of Total	Fees Paid	Share of Total
<b>Portfolio Management</b>						
Pension Plans	\$24,765	57.98%	\$7,365	47.81%	\$3,186	48.24%
Insurance Plans	11,773	27.56%	6,205	40.28%	2,380	36.03%
<b>Securities Lending</b>						
Pension Plans	3,808	8.92%	1,059	6.87%	671	10.16%
Insurance Plans	1,402	3.28%	487	3.16%	214	3.24%
<b>Custody</b>						
Pension Plans	397	0.93%	97	0.63%	62	0.94%
Insurance Plans	234	0.55%	94	0.61%	38	0.58%
<b>Consultant</b>						
Pension Plans	238	0.56%	59	0.38%	38	0.57%
Insurance Plans	96	0.22%	40	0.26%	16	0.24%
<b>Total Pension Plans</b>	<b>29,208</b>	<b>68.38%</b>	<b>8,580</b>	<b>55.69%</b>	<b>3,957</b>	<b>59.91%</b>
<b>Total Insurance Plans</b>	<b>13,505</b>	<b>31.62%</b>	<b>6,826</b>	<b>44.31%</b>	<b>2,648</b>	<b>40.09%</b>
<b>Total Expenses</b>	<b>\$42,713</b>	<b>100.00%</b>	<b>\$15,406</b>	<b>100.00%</b>	<b>\$6,605</b>	<b>100.00%</b>

<b>Schedule of Commissions Paid (in whole \$)</b>			
For the fiscal year ended June 30, 2024			
<b>KERS Nonhazardous</b>			
Assets	Total Shares	Commissions Paid	Price per Share
U.S. Equities	7,722,670	\$146,262	0.0189
Non U.S. Equities	65,155,947	\$312,594	0.0048
<b>Total</b>	<b>72,878,617</b>	<b>\$458,857</b>	<b>0.0063</b>
<b>KERS Hazardous</b>			
Assets	Total Shares	Commissions Paid	Price per Share
U.S. Equities	2,841,637	\$52,825	0.0186
Non U.S. Equities	22,257,495	\$107,030	0.0048
<b>Total</b>	<b>25,099,133</b>	<b>\$159,855</b>	<b>0.0064</b>
<b>SPRS</b>			
Assets	Total Shares	Commissions Paid	Price per Share
U.S. Equities	1,335,111	\$25,991	0.0195
Non U.S. Equities	10,672,576	\$51,151	0.0048
<b>Total</b>	<b>12,007,687</b>	<b>\$77,142</b>	<b>0.0064</b>

**Fair Values (FV)**

As of June 30, 2024 (\$ in Thousands)

Pension Plans	KERS Nonhazardous		KERS Hazardous		SPRS		Total	
	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV
<b>Equity</b>								
Public Equity	\$1,365,159	32.44%	437,656	42.66%	208,715	32.07%	\$2,011,530	34.18%
Private Equity	195,286	4.64%	66,130	6.44%	31,552	4.85%	\$292,968	4.98%
<b>Fixed Income</b>								
Core Fixed Income	1,108,019	26.33%	116,505	11.36%	168,122	25.83%	\$1,392,646	23.66%
Specialty Credit	792,754	18.84%	231,541	22.57%	125,292	19.25%	\$1,149,587	19.53%
Cash	176,951	4.20%	34,749	3.39%	25,345	3.90%	\$237,045	4.03%
<b>Inflation Protected</b>								
Real Estate	218,209	5.19%	59,021	5.75%	35,194	5.41%	\$312,424	5.31%
Real Return	352,023	8.36%	80,315	7.83%	56,582	8.69%	\$488,920	8.31%
<b>TOTAL PORTFOLIO</b>	<b>\$4,208,401</b>		<b>\$1,025,917</b>		<b>\$650,802</b>		<b>\$5,885,120</b>	

Insurance Plans	KERS Nonhazardous		KERS Hazardous		SPRS		Total	
	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV	Fair Value	% of Total FV
<b>Equity</b>								
Public Equity	\$718,838	42.85%	\$288,762	43.27%	\$116,124	42.83%	\$1,123,724	42.95%
Private Equity	\$111,770	6.66%	\$48,804	7.31%	\$21,728	8.01%	\$182,302	6.97%
<b>Fixed Income</b>								
Core Fixed Income	\$191,909	11.44%	\$76,727	11.50%	\$30,196	11.14%	\$298,832	11.42%
Specialty Credit	\$379,231	22.60%	\$152,514	22.85%	\$61,910	22.83%	\$593,655	22.69%
Cash	\$43,201	2.58%	\$12,423	1.86%	\$6,414	2.37%	\$62,038	2.37%
<b>Inflation Protected</b>								
Real Estate	\$96,199	5.73%	\$42,344	6.34%	\$16,169	5.96%	\$154,712	5.91%
Real Return	\$136,552	8.14%	\$45,860	6.87%	\$18,615	6.86%	\$201,027	7.69%
<b>TOTAL PORTFOLIO</b>	<b>\$1,677,700</b>		<b>\$667,434</b>		<b>\$271,156</b>		<b>\$2,616,290</b>	

## **ACTUARIAL**

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### **Certification of Actuarial Results**

Re: Certification for the Actuarial Results as of June 30, 2024.

*Dear Board of Trustees:*

Actuarial valuations are prepared annually as of June 30, for the Kentucky Employees Retirement System (KERS) and the State Police Retirement System (SPRS). These reports describe the current actuarial condition of the Systems and document the calculated employer contribution requirements as well as the changes in the financial condition since the prior actuarial valuation.

The results of the actuarial valuation for KERS and SPRS, including the calculated employer contribution requirement, will be used by the Board of Trustees of the Kentucky Retirement Systems (KRS) and stakeholders for informational purposes only as the employer contribution rate for the fiscal years ended June 30, 2025 and June 30, 2026 were certified in the June 30, 2023 actuarial valuation, which was adopted by the Board and incorporated in the Commonwealth's budget for the biennium period.

These contributions are calculated based on the membership data and plan assets as of June 30, 2024. These calculations are also based on the benefit provisions in effect as of June 30, 2024.

### **FINANCING OBJECTIVES AND FUNDING POLICY**

The Kentucky Public Pensions Authority (KPPA) administers pension and health insurance funds to provide for monthly retirement income and retiree health insurance benefits. The total employer contribution requirement is composed of a contribution to each respective fund.

The employer contribution for KERS and SPRS is determined in accordance with Section 61.565 of Kentucky Statute. As specified by the Statute, the employer contribution is composed of a normal cost contribution and an actuarial accrued liability contribution. The actuarial accrued liability contribution is calculated by amortizing the unfunded accrued liability as of June 30, 2019 over a closed 30-year amortization period (25 years remaining as of June 30, 2024). Gains and losses incurring in years after June 30, 2019 are amortized as separate, closed 20-year amortization bases.

If the contributions made are equal to the Actuarially Determined Contribution (ADC), and if all actuarial assumptions are met, there will not be an unfunded accrued liability at the end of the 25-year period remaining from the original closed 30-year amortization base. Accordingly, the ADC under the funding policy can be considered a "Reasonable Actuarially Determined Contribution" as required by the Actuarial Standards of Practice.

House Bill 8 passed during the 2021 legislative session and changed how employer contributions are allocated and collected from the participating employers in the KERS nonhazardous fund. Each employer will pay a normal cost contribution on the payroll of their covered employees and contribute to the fund an allocated share of the cost required to amortize the unfunded liability.



HB 1 and HB 604 were enacted in the 2022 legislative session and provided an additional \$240 million in appropriations to finance the unfunded actuarial accrued liability of the KERS nonhazardous retirement fund in FY 2024. The previous year’s valuation reflected the appropriations for FY 2024 in the calculated contribution requirement.

HB 1 and HB 6 were enacted in the 2024 legislative session and provided an additional \$300 million in appropriations to finance the unfunded actuarial accrued liability of the KERS nonhazardous retirement fund in FY 2025 and FY 2026. HB 1 also provided an additional \$25 million to finance the unfunded actuarial accrued liability of the SPRS retirement fund in FY 2025 and FY 2026. The appropriations for FY 2025 have been reflected in the contribution requirement in this year’s valuation. The appropriations for FY 2026 will be reflected in the contribution requirement in next year’s valuation.

**PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan’s funded status. In the absence of benefit improvements, assumption changes, or actuarial losses, it should increase over time, until it reaches at least 100%. As of June 30, 2024, the funded ratios for the pension and health insurance plans are as follows:

Funding Level As of June 30												
System	2024		2023		2022		2021		2020		2019	
	Pension	Insurance	Pension	Insurance	Pension	Insurance	Pension	Insurance	Pension	Insurance	Pension	Insurance
<b>KERS Nonhazardous</b>	24.8%	81.7%	21.8%	81.7%	18.5%	79.1%	16.8%	50.2%	14.2%	42.7%	13.4%	36.3%
<b>KERS Hazardous</b>	68.3%	171.9%	65.4%	170.4%	63.2%	172.2%	60.4%	135.5%	55.3%	126.0%	54.8%	123.1%
<b>SPRS</b>	56.7%	104.9%	54.0%	100.5%	52.5%	100.6%	30.7%	82.0%	28.1%	75.0%	27.0%	71.3%

**ASSUMPTIONS AND METHODS**

The Boards of Trustees, in consultation with the actuary, set the actuarial assumptions and methods used in the actuarial valuation. In general, the assumptions used in the June 30, 2024 actuarial valuations were adopted for first use in the June 30, 2023 actuarial valuations and are based on the experience study conducted through June 30, 2022.

In our opinion, all the assumptions and methods used for funding purposes adopted by the Board’s Trustees satisfy the requirements in the Actuarial Standards of Practice that are applicable for actuarial valuations of public retirement systems.

It is also our opinion that the actuarial assumptions used to perform these valuations are internally consistent and reasonably reflect the anticipated future experience of the Systems. The results of the actuarial valuation



are dependent on the actuarial assumptions used. Actual results can, and almost certainly will, differ as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution requirements, and funding periods. The actuarial calculations are intended to provide information for rational decision making.

### ADDITIONAL DISCLOSURES

The benefit structure is outlined in this section of the annual report. GRS prepared the following schedules in the actuarial section: *Summary of Actuarial Valuation Results, Recommended Employer Contribution Rates, Summary of Actuarial Unfunded Liabilities, the Solvency Test, the Summary of Active Member Valuation Data, the Summary of Retired Member Valuation Data, Summary of the Assumptions and Methods, and the Summary of the Benefit Provisions.*

In addition, GRS prepared the following schedules in the financial section in accordance with GASB Statement No. 67: *Net Pension Liability Schedule, Discount Rate Sensitivity Analysis, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Net Pension Liability, and the Schedule of Employers' Contributions.*

### DATA

Member data for retired, active and inactive members was supplied as of June 30, 2024, by KPPA staff. The staff also supplied asset information as of June 30, 2024. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us by KPPA.

### CERTIFICATION

We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Retirement Systems as of June 30, 2024. All of our work conforms with generally accepted actuarial principles and practices, and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Kentucky Code of Laws and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Mr. White and Ms. Shaw are Enrolled Actuaries. All three of the undersigned are members of the American Academy of Actuaries and meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. In addition, all three are independent of KPPA and are experienced in performing valuations for large public retirement systems. This communication shall not be construed to provide tax advice, legal advice or investment advice.

Sincerely,





**Gabriel, Roeder, Smith & Co.**

A handwritten signature in black ink that reads "Daniel J. White".

Daniel J. White, FSA, EA, MAAA  
Senior Consultant

A handwritten signature in black ink that reads "Janie Shaw".

Janie Shaw, ASA, EA, MAAA  
Consultant

A handwritten signature in black ink that reads "Krysti Kiesel".

Krysti Kiesel, ASA, MAAA  
Consultant

## Summary of Actuarial Assumptions

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The results of the actuarial valuation are based upon the assumptions and funding policies adopted by the Boards and statutory funding requirements. Assumptions and funding policies are reviewed against actual plan experience at least once every five years through the completion of the Actuarial Experience Study. In general, the assumptions and methods used in the June 30, 2024 valuation are based on the most recent actuarial experience study performed as of June 30, 2022, submitted, and adopted by the Board in June 2023.

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

**2. UAAL Amortization Method:** Effective for the June 30, 2019 valuation, the actuarial accrued liability contribution is calculated by amortizing the unfunded accrued liability as of June 30, 2019 over a closed 30-year amortization period. Gains and losses incurring in future years are amortized as separated closed 20-year amortization bases. This amortization cost is calculated using a 0.00% payroll growth assumption for the KERS and SPRS Funds. Effective for fiscal years ended June 30, 2022 and later, the amortization cost for the KERS Nonhazardous funds is allocated amongst employers as a dollar amount based on the employers' actuarial accrued liability as of June 30, 2019. The amortization cost for the remaining funds is divided by covered payroll and included in the contribution rate, payable by employers as a percentage of pay.

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

**4. Retiree Insurance Funding Policy:** Effective for the June 30, 2019 valuation, the actuarial accrued liability contribution is calculated by amortizing the unfunded accrued liability as of June 30, 2019, over a closed 30-year amortization period. Gains and losses incurring in future years are amortized as separated closed 20-year amortization bases. This amortization cost is calculated using a 0.00% payroll growth assumption for the KERS and SPRS Funds. Effective for fiscal years ended June 30, 2022 and later, the amortization cost for the KERS Nonhazardous funds is allocated amongst employers as a dollar amount based on the employers' actuarial accrued liability as of June 30, 2019. The amortization cost for the remaining funds is divided by covered payroll and included in the contribution rate, payable by employers as a percentage of pay.

**5. Investment Return Assumption:** The future investment earnings of plan assets are assumed to accumulate at a rate of 6.50% per annum for all Insurance Systems. This rate consists of a 2.50% price inflation component and a 4.00% real rate of return component. The assumed rate of return for the KERS Hazardous pension fund is 6.25% and consists of a 2.50% inflationary component and a 3.75% real rate of return component. The assumed rate of return for the KERS Nonhazardous pension fund and the SPRS pension fund is 5.25% and consist of a 2.50% inflationary component and a 2.75% real rate of return component. This assumption was adopted in 2023.

**6. Salary Increase Assumptions:** Active member salaries are assumed to increase at the rates provided in Table 1. The rates include a price inflation and productivity component, and an additional increase due to promotion based upon plan experience. The price inflation component is 2.50% for all plans and the productivity component is 0.80% for the nonhazardous system and 1.05% for the hazardous system. This assumption was adopted in 2023.

**Table 1. Salary Increase Assumptions**

Service	KERS		SPRS
	Nonhazardous	Hazardous	
0	15.30%	20.05%	16.05%
1	6.80%	7.55%	8.55%
2	6.05%	6.55%	7.55%
3	5.80%	6.55%	5.55%
4	5.30%	5.55%	5.55%
5	4.80%	5.05%	5.55%
6	4.55%	4.55%	5.55%
7	4.30%	4.05%	4.55%
8	4.05%	4.05%	4.55%
9	3.80%	3.55%	3.55%
10	3.80%	3.55%	3.55%
11	3.30%	3.55%	3.55%
12	3.30%	3.55%	3.55%
13	3.30%	3.55%	3.55%
14	3.30%	3.55%	3.55%
15	3.30%	3.55%	3.55%
16+	3.30%	3.55%	3.55%

**7. Payroll Growth Assumption:** For purposes of determining the amortization cost to finance the unfunded actuarial accrued liability, the active member payroll (or amortization payments for the KERS Nonhazardous fund) is assumed to increase at a rate of 0.00% per annum. This assumption was adopted in 2017.

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

**9. Health Care Cost Trend Rate:**

The costs for retiree medical premiums are assumed to increase according to the assumptions provided in Table 2.

**Table 2: Health Care Cost Trend Rate (See footnotes 1-2)**

Year	Non-Medicare Plans <sup>(1)</sup>	Medicare Plans <sup>(1)</sup>	Dollar Contribution <sup>(2)</sup>
2026	7.10%	8.00%	1.50%
2027	7.00%	8.00%	1.50%
2028	6.80%	8.00%	1.50%
2029	6.60%	7.50%	1.50%
2030	6.40%	7.00%	1.50%
2031	6.20%	6.50%	1.50%
2032	6.00%	6.00%	1.50%
2033	5.80%	5.50%	1.50%
2034	5.60%	5.00%	1.50%
2035	5.40%	4.50%	1.50%
2036	5.20%	4.25%	1.50%
2037	5.00%	4.25%	1.50%
2038	4.75%	4.25%	1.50%
2039	4.50%	4.25%	1.50%
2040+	4.25%	4.25%	1.50%

<sup>(1)</sup> All increases are assumed to occur on January 1. The 2025 premiums were known at the time of the June 30, 2024, valuation and were incorporated into the liability measurement.

<sup>(2)</sup> Applies to members participating on or after July 1, 2003. All increases are assumed to occur on July 1.

### 10. Retirement Rate Assumptions:

The probability, or the likelihood, that a member will retire at a specified age or level of service is provided in Table 3. These assumptions were adopted in 2023.

**Table 3b: Retirement Rate Assumptions KERS (See footnotes 1 - 3)**

Age	Nonhazardous					Hazardous			
	Normal Retirement		Early Retirement <sup>(1)</sup>		Service	Members participating before 9/1/2008 <sup>(2)</sup>		Members participating between 9/1/2008 and 1/1/2014 <sup>(3)</sup>	Members participating after 1/1/2014 <sup>(3)</sup>
	Male	Female	Male	Female		Age 55-61	Age 62+		
Under 45	20.00%	33.00%			5	10.00%	35.00%		
45	21.00%	33.00%			6	10.00%	35.00%		
46	22.00%	33.00%			7	10.00%	35.00%		
47	23.00%	33.00%			8	10.00%	35.00%		
48	24.00%	33.00%			9	10.00%	35.00%		
49	25.00%	33.00%			10	10.00%	35.00%		
50	26.00%	33.00%			11	10.00%	35.00%		
51	27.00%	33.00%			12	10.00%	35.00%		
52	28.00%	33.00%			13	10.00%	35.00%		
53	29.00%	33.00%			14	10.00%	35.00%		
54	30.00%	33.00%			15	10.00%	35.00%		
55	30.00%	33.00%	5.00%	5.00%	16	10.00%	35.00%		
56	30.00%	33.00%	5.00%	5.00%	17	10.00%	35.00%		
57	30.00%	33.00%	5.00%	5.00%	18	10.00%	35.00%		
58	30.00%	33.00%	5.00%	5.00%	19	10.00%	35.00%		
59	30.00%	33.00%	5.00%	5.00%	20	50.00%	50.00%		
60	30.00%	33.00%	5.00%	8.00%	21	32.00%	32.00%		
61	30.00%	33.00%	8.00%	9.00%	22	32.00%	32.00%		
62	35.00%	35.00%	15.00%	20.00%	23	32.00%	32.00%		
63	30.00%	33.00%	15.00%	18.00%	24	32.00%	32.00%		
64	30.00%	33.00%	15.00%	16.00%	25	32.00%	32.00%	25.60%	16.00%
65	30.00%	33.00%			26	32.00%	32.00%	25.60%	16.00%
66	30.00%	33.00%			27	32.00%	32.00%	25.60%	16.00%
67	30.00%	33.00%			28	32.00%	32.00%	25.60%	16.00%
68	30.00%	33.00%			29	32.00%	32.00%	25.60%	16.00%
69	30.00%	33.00%			30+	32.00%	32.00%	25.60%	100.00%
70	30.00%	33.00%							
71	30.00%	33.00%							
72	30.00%	33.00%							
73	30.00%	33.00%							
74	30.00%	33.00%							
75	100.00%	100.00%							

(1) The annual rate of retirement is 12% for male members and 14% for female members with 25-26 years of service.

(2) The annual rate of retirement is 100% at age 65.

(3) The annual rate of retirement is 100% at age 60.

*Nonhazardous System: There is a 1% increase in the first two years a member becomes eligible under the age of 65. For members hired after 7/1/2003, the rates shown above are multiplied by 80% if the member is under age 65 to reflect the different retiree health insurance benefit.*

*Hazardous System: For members hired after 7/1/2003 and prior to 9/1/2008, the rates shown above are multiplied by 80% if the member is under age 65 to reflect the different retiree health insurance benefit.*

**Table 3c: Retirement Rate Assumptions SPRS (See footnotes 1 - 2)**

Service	Hazardous		
	Members Participating before 9/1/2008 <sup>(1)</sup>	Members participating between 9/1/2008 and 1/1/2014 <sup>(2)</sup>	Members participating after 1/1/2014 <sup>(2)</sup>
20	22.00%		
21	22.00%		
22	22.00%		
23	28.00%		
24	28.00%		
25	28.00%	17.60%	16.00%
26	28.00%	17.60%	16.00%
27	28.00%	17.60%	16.00%
28	44.00%	22.40%	16.00%
29	44.00%	22.40%	16.00%
30	44.00%	22.40%	100.00%
31	58.00%	22.40%	
32	58.00%	22.40%	
33	58.00%	35.20%	
34	58.00%	35.20%	
35	58.00%	35.20%	
36	58.00%	46.40%	
37	58.00%	46.40%	
38	58.00%	46.40%	
39	58.00%	46.40%	
40+	58.00%	46.40%	

(1) The annual rate of service retirement is 100% at age 55.  
 (2) The annual rate of service retirement is 100% at age 60.  
 For members hired after 7/1/2003 and prior to 9/1/2008, the rates shown above are multiplied by 80% if the member is under age 55 to reflect the different retiree health insurance benefit.

**11. Mortality Assumptions:** Pre-retirement mortality: PUB-2010 General Mortality table, for the Nonhazardous Systems, and the PUB-2010 Public Safety Mortality table for the Hazardous Systems, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year of 2010.

Post-retirement mortality (non-disabled): System-specific mortality table based on mortality experience from 2013-2022, projected with the ultimate rates from MP-2020 mortality improvement scale using a base year of 2023.

Table 4a provides the life expectancy for a non-disabled retiree in future years based on the assumption with full generational projection.

Post-retirement mortality (disabled): PUB-2010 Disabled Mortality table, with rates multiplied by 150% for both male and female rates, projected with the ultimate rates from the MP-2020 mortality improvement scale using a base year of 2010.

These mortality assumptions were adopted in 2023. Table 4b provides sample annual rates of mortality in the base year of each table (2023 for the retired member mortality rates and 2010 for the active member and disabled member mortality rates).

**Table 4a: Life Expectancy for an Age 65 Retiree in Years**

Gender	Year of Retirement				
	2025	2030	2035	2040	2045
Male	19.8	20.2	20.6	21.0	21.3
Female	22.4	22.7	23.1	23.4	23.7

**Table 4b: Sample Annual Rate of Mortality**

Age	Active Member Mortality		Active Member Mortality		Retired Member Mortality		Disabled Member Mortality	
	Nonhazardous		Hazardous					
	Males	Females	Males	Females	Males	Females	Males	Females
20	0.04%	0.01%	0.04%	0.02%	0.03%	0.01%	0.62%	0.35%
22	0.03%	0.01%	0.04%	0.02%	0.03%	0.01%	0.53%	0.29%
32	0.04%	0.02%	0.04%	0.03%	0.04%	0.02%	0.59%	0.46%
42	0.08%	0.04%	0.07%	0.06%	0.07%	0.04%	1.14%	1.13%
52	0.18%	0.10%	0.14%	0.10%	0.32%	0.21%	2.73%	2.38%
62	0.37%	0.22%	0.32%	0.19%	0.94%	0.55%	4.02%	3.08%
72	0.84%	0.60%	0.98%	0.60%	2.38%	1.48%	6.52%	4.86%

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**12. Withdrawal Rates:** The probability, or likelihood, of active members terminating employment prior to retirement is provided in Table 5. The rates below include the pre-retirement mortality rates described in item #11. These assumptions were adopted in 2023.

**Table 5: Selected Rates of Termination Prior to Retirement**

KERS Nonhazardous		KERS Hazardous	SPRS	
Years of Service			Years of Service	
1	22.00%	32.50%	1	15.00%
2	18.10%	25.58%	2	5.30%
3	14.73%	19.66%	3	4.14%
4	12.77%	16.19%	4	3.47%
5	11.37%	13.73%	5	2.98%
6	10.29%	11.82%	6	2.61%
7	9.41%	10.26%	7	2.30%
8	8.66%	8.93%	8	2.05%
9	8.01%	7.79%	9	1.83%
10	7.44%	6.79%	10	1.63%
11	6.93%	5.89%	11	1.45%
12	6.47%	5.07%	12	1.29%
13	6.04%	4.33%	13	1.14%
14	5.65%	3.64%	14	1.01%
15	5.29%	3.00%	15	0.88%
16	4.96%	2.42%	16	0.77%
17	4.64%	1.86%	17	0.66%
18	4.36%	1.34%	18	0.56%
19	4.07%	0.86%	19	0.46%
20	3.82%	0.39%	20	0.37%
21	3.56%	0.00%	21	0.00%
22	3.32%	0.00%	22	0.00%
23	3.10%	0.00%	23	0.00%
24	2.88%	0.00%	24	0.00%
25	2.67%	0.00%	25	0.00%
26+	0.00%	0.00%	26+	0.00%

**13. Rates of Disablement:** KERS/SPRS provide disability benefits for those individuals meeting specific qualifications established by state law. This assumption provides the probability, or likelihood, that a member will become disabled during the course of employment for various age levels. These assumptions were adopted in 2023.

**Table 6: Sample Rates of Disablement**

Nearest Age	KERS Nonhazardous	KERS Hazardous	SPRS
	Probability	Probability	Probability
20	0.03%	0.05%	0.05%
30	0.05%	0.08%	0.09%
40	0.11%	0.18%	0.20%
50	0.31%	0.50%	0.56%
60	0.80%	1.32%	1.46%

**14. Assumption Changes Since Prior Valuation:** In conjunction with the review of the healthcare per capita claims cost, the assumed increase in future healthcare costs, or trend assumption, is reviewed on an annual basis. The trend assumption for the non-Medicare Plans was increased during the select period and the ultimate trend assumption was increased for all plans as a result of this review.

## Summary of Actuarial Valuation Results

Summary of Actuarial Valuation Results			
	KERS Nonhazardous	KERS Hazardous	SPRS
<b>Recommended Contribution Rate (FY 2026)</b>			
Pension Fund Contribution	6.85%	20.68%	57.91%
Insurance Fund Contribution	1.14%	0.00%	1.46%
Actuarially Determined Employer Contributions Rate <sup>(1)</sup> , payable as a percentage of payroll	7.99%	20.68%	59.37%
Amortization Cost to be Allocated, if applicable	\$865,810,060	N/A	N/A
<b>Funded Status as of Valuation Date As of June 30, 2024 (in Whole \$)</b>			
<b>Pension Fund</b>			
Actuarial Liability	\$16,647,892,788	\$1,442,618,733	\$1,112,310,302
Actuarial Value of Assets	4,122,268,538	985,075,014	631,185,635
Unfunded Liability on Actuarial Value of Assets	12,525,624,250	457,543,719	481,124,667
Funding Ratio on Actuarial Value of Assets	24.76%	68.28%	56.75%
Market Value of Assets	4,223,935,798	1,019,889,950	651,789,660
Unfunded Liability on Market Value of Assets	\$12,423,956,990	\$422,728,783	\$460,520,642
Funding Ratio on Market Value of Assets	25.37%	70.70%	58.60%
<b>Insurance Fund</b>			
Actuarial Liability	\$2,094,743,197	\$379,567,892	\$251,177,950
Actuarial Value of Assets	1,712,043,266	652,348,960	263,368,832
Unfunded Liability on Actuarial Value of Assets	382,699,931	(272,781,068)	(12,190,882)
Funding Ratio on Actuarial Value of Assets	81.73%	171.87%	104.85%
Market Value of Assets	1,765,729,242	677,948,093	273,516,528
Unfunded Liability on Market Value of Assets	\$329,013,955	\$(298,380,201)	\$(22,338,578)
Funding Ratio on Market Value of Assets	84.29%	178.61%	108.89%
<b>Member Data (See Footnotes)</b>			
Number of Active Members	32,455	4,154	872
Total Annual Payroll (Active Members) <sup>(2)</sup>	\$1,861,521,817	\$259,606,371	\$73,294,873
Average Annual Pay (Active Members)	\$57,357	\$62,496	\$84,054
Number of Retired Members & Beneficiaries	48,474	4,934	1,676
Average Annual Retirement Allowance	\$20,305	\$15,451	\$37,364
Number of Vested Inactive Members	30,641	2,343	345
Number of Inactive Members Due a Refund	26,113	6,637	402
<sup>(1)</sup> For the KERS Nonhazardous fund, contribution rate includes the normal cost portion of the contribution requirement only. Amortization cost will be allocated to employers as a dollar amount.			
<sup>(2)</sup> Annual payroll included in the Summary of Actuarial Valuation Results is based upon the annualized monthly payroll for active members as of the valuation date. The annual payroll recorded in the financial section is based upon the sum of the monthly payroll for active members recorded for each month of fiscal year ended June 30, 2024.			



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## Recommended Employer Contribution Rates

### KERS Plans

The contribution rates for KERS Nonhazardous and KERS Hazardous shown in the tables below are the full funding rates presented by the actuary for 2014 through 2023 annual valuations. However, actual employer contributions were less than the recommended rates for years 2009 through 2014. SB 2 (2013 Legislative Regular Session) required full funding starting in fiscal year 2015. HB 265 from the 2018 legislative session reduced the employer contribution rate for KERS quasi-governmental agencies to the fiscal year 2018 rate for fiscal year 2019, which was 49.47%. The 2019 Special Legislative Session HB 1 sets the employer contribution rate at 49.47%, retroactive to July 1, 2019, for fiscal year 2020 for KERS quasi-governmental agencies. House Bill 8 passed during the 2021 legislative session and changed how employer contributions are allocated and collected from the participating employers in the KERS Nonhazardous Fund. Each employer will pay a normal cost contribution on the payroll of their covered employees and contribute to the fund an allocated share of the cost required to amortize the unfunded liability.

### Recommended Employer Contribution Rates As of June 30

#### KERS Nonhazardous Employers

Valuation Date	Applicable Fiscal Year	Pension Fund Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Contribution
2015	2016-2017	3.60%	35.33%	38.93%	8.35%	47.28%
2016	2017-2018	4.93%	37.05%	41.98%	8.41%	50.39%
2017	2018-2019	8.17%	62.86%	71.03%	12.40%	83.43%
2018	2019-2020	7.98%	66.56%	74.54%	10.65%	85.19%
2019	2020-2021	7.99%	65.29%	73.28%	11.15%	84.43%
Valuation Date	Applicable Fiscal Year	Pension Fund Normal Cost	Insurance Fund: Normal Cost	Normal Cost Contribution	Amortization Cost to be Allocated	
2020	2021-2022	7.90%	2.20%	10.10%	\$1,039,849,248	
2021	2022-2023	7.82%	2.15%	9.97%	\$994,421,476	
2022	2023-2024	7.74%	1.86%	9.60%	\$905,892,818	
2023	2024-2025	6.99%	1.45%	8.44%	\$856,561,041	
2024	2025-2026	6.85%	1.14%	7.99%	\$865,810,060	

#### KERS Hazardous Employers

Valuation Date	Applicable Fiscal Year	Pension Fund Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Contribution
2015	2016-2017	6.93%	14.15%	21.08%	2.74%	23.82%
2016	2017-2018	6.44%	14.04%	20.48%	1.34%	21.82%
2017	2018-2019	9.67%	24.72%	34.39%	2.46%	36.85%
2018	2019-2020	9.24%	25.18%	34.42%	0.00%	34.42%
2019	2020-2021	9.21%	26.79%	36.00%	0.00%	36.00%
2020	2021-2022	8.84%	24.59%	33.43%	0.00%	33.43%
2021	2022-2023	8.78%	23.04%	31.82%	0.00%	31.82%
2022	2023-2024	8.60%	21.52%	30.12%	0.00%	30.12%
2023	2024-2025	7.71%	16.03%	23.74%	0.00%	23.74%
2024	2025-2026	7.57%	13.11%	20.68%	0.00%	20.68%

*The contribution rates for KERS Nonhazardous and KERS Hazardous shown in the above tables are the full funding rates presented by the actuary in the 2015 through 2024 annual valuations. HB 265 (passed during the 2018 legislative session), HB 1 (passed during the 2019 special legislative session), and HB 352 (passed during the 2020 legislative session) reduced the FYE 2019-2021 employer contribution rate to 49.47% for Regional Mental Health/Mental Retardation Boards, Local and District Health Departments, State Universities, Community Colleges and any other agencies eligible to voluntarily cease participating in the KERS Nonhazardous fund. HB 8 (passed during the 2021 legislative session) changed how employer contributions are allocated and collected amongst employers in the KERS Nonhazardous fund effective for FYE2022. The normal cost is collected as a percentage of covered payroll and the amortization cost is allocated to employers as a dollar amount based on their accrued liability as of June 30, 2019. Amortization cost shown above reflects the amortization required as of the valuation date and does not reflect any adjustment for the cessation of any employers after the valuation date.*

## SPRS Plans

The contribution rates for SPRS shown in the below tables are the full funding rates presented by the actuary in the 2014 through 2023 annual valuations. However, the actual employer contribution rates have been less than those shown below. As a result of HB1 passed in 2008 the statute called for an employer contribution rate at an increasing percentage of the full funding rates. SB2 (2013 Regular Legislative Session) eliminated this phase-in beginning with the June 30, 2013, actuarial valuation.

Recommended Employer Contribution Rates						
As of June 30						
SPRS Employers						
Valuation Date	Applicable Fiscal Year	Pension Fund Normal Cost	Pension Fund: Payment on Unfunded Liability	Pension Fund Contribution	Insurance Fund Contribution	Recommended Employer Contribution
2015	2016-2017	8.77%	57.70%	66.47%	18.87%	85.34%
2016	2017-2018	11.16%	60.41%	71.57%	18.10%	89.67%
2017	2018-2019	16.21%	102.84%	119.05%	27.23%	146.28%
2018	2019-2020	15.81%	104.73%	120.54%	19.50%	140.04%
2019	2020-2021	19.39%	104.40%	123.79%	19.69%	143.48%
2020	2021-2022	19.04%	108.95%	127.99%	18.07%	146.06%
2021	2022-2023	18.60%	66.72%	85.32%	14.11%	99.43%
2022	2023-2024	19.49%	65.90%	85.39%	3.68%	89.07%
2023	2024-2025	19.41%	46.38%	65.79%	2.31%	68.10%
2024	2025-2026	19.76%	38.15%	57.91%	1.46%	59.37%

*The contribution rates for SPRS shown in the above tables are the full funding rates presented by the actuary in the 2015 through 2024 annual valuations.*

**Summary of Actuarial Unfunded Liabilities****Summary of Actuarial Unfunded Liabilities****As of June 30 (\$ in Thousands)****KERS Nonhazardous Pension Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liabilities		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$12,359,673	\$2,350,990	\$2,307,858	\$10,008,683	\$10,051,815	19.02%	18.67%
2016	13,224,698	2,112,287	1,953,422	11,112,412	11,271,276	15.97%	14.77%
2017	15,591,641	2,123,623	2,056,870	13,468,018	13,534,771	13.62%	13.19%
2018	15,675,232	2,019,278	2,004,446	13,655,954	13,670,786	12.88%	12.79%
2019	16,466,427	2,206,280	2,233,672	14,260,147	14,232,755	13.40%	13.57%
2020	16,348,962	2,323,298	2,308,080	14,025,663	14,040,882	14.21%	14.12%
2021	16,321,373	2,735,876	3,018,660	13,585,497	13,302,713	16.76%	18.50%
2022	16,576,631	3,065,263	3,013,845	13,511,368	13,562,786	18.49%	18.18%
2023	16,304,277	3,552,471	3,539,942	12,751,806	12,764,335	21.79%	21.71%
2024	\$16,647,893	\$4,122,269	\$4,223,936	\$12,525,624	\$12,423,957	24.76%	25.37%

**KERS Nonhazardous Insurance Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liabilities		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$2,413,705	\$695,018	\$687,684	\$1,718,687	\$1,726,021	28.79%	28.49%
2016	2,456,678	743,270	695,189	1,713,408	1,761,489	30.26%	28.30%
2017	2,683,496	823,918	817,370	1,859,578	1,866,126	30.70%	30.46%
2018	2,435,506	887,121	891,205	1,548,385	1,544,301	36.42%	36.59%
2019	2,733,065	991,427	995,089	1,741,639	1,737,977	36.28%	36.41%
2020	2,564,788	1,095,959	1,060,649	1,468,829	1,504,139	42.73%	41.35%
2021	2,574,112	1,291,472	1,419,477	1,282,640	1,154,634	50.17%	55.14%
2022	1,782,386	1,409,553	1,364,419	372,833	417,967	79.08%	76.55%
2023	1,877,109	1,532,895	1,532,752	344,214	344,357	81.66%	81.65%
2024	\$2,094,743	\$1,712,043	\$1,765,729	\$382,700	\$329,014	81.73%	84.29%

**KERS Hazardous Pension Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liabilities		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
		2015	\$895,433	\$556,688	\$550,120	\$338,746	\$345,313
2016	936,706	559,487	524,679	377,219	412,027	59.73%	56.01%
2017	1,121,420	607,159	601,529	514,261	519,891	54.14%	53.64%
2018	1,151,923	639,262	645,485	512,661	506,438	55.50%	56.04%
2019	1,226,195	671,647	680,932	554,548	545,262	54.77%	55.53%
2020	1,283,770	709,587	690,350	574,183	593,420	55.27%	53.78%
2021	1,295,243	782,496	866,141	512,747	429,102	60.41%	66.87%
2022	1,316,825	832,436	810,978	484,389	505,847	63.22%	61.59%
2023	1,363,037	891,460	893,534	471,577	469,503	65.40%	65.55%
2024	\$1,442,619	\$985,075	\$1,019,890	\$457,544	\$422,729	68.28%	70.70%

**KERS Hazardous Insurance Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liabilities		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
		2015	\$374,904	\$451,514	\$441,626	(76,610)	(66,722)
2016	377,745	473,160	440,596	(95,415)	(62,851)	125.26%	116.64%
2017	419,440	493,458	488,838	(74,019)	(69,399)	117.65%	116.55%
2018	393,481	511,441	519,072	(117,961)	(125,592)	129.98%	131.92%
2019	426,705	525,315	534,053	(98,610)	(107,348)	123.11%	125.16%
2020	427,977	539,251	521,755	(111,275)	(93,778)	126.00%	121.91%
2021	424,456	575,025	633,677	(150,569)	(209,221)	135.47%	149.29%
2022	347,044	597,701	588,162	(250,657)	(241,118)	172.23%	169.48%
2023	363,512	619,519	625,356	(256,007)	(261,844)	170.43%	172.03%
2024	\$379,568	\$652,349	\$677,948	\$(272,781)	\$(298,380)	171.87%	178.61%

**Summary of Actuarial Unfunded Liabilities  
As of June 30 (\$ in Thousands)**
**SPRS Pension Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$734,156	\$248,388	\$246,968	\$485,769	\$487,188	33.83%	33.64%
2016	775,160	234,568	217,594	540,593	557,566	30.26%	28.07%
2017	967,145	261,320	255,737	705,824	711,408	27.02%	26.44%
2018	989,528	268,259	267,572	721,269	721,956	27.11%	27.04%
2019	1,045,318	282,162	286,165	763,156	759,153	26.99%	27.38%
2020	1,053,157	296,126	293,949	757,031	759,208	28.12%	27.91%
2021	1,053,260	323,250	356,346	730,009	696,914	30.69%	33.83%
2022	1,067,447	559,973	551,699	507,474	515,748	52.46%	51.68%
2023	1,091,795	589,848	591,514	501,947	500,281	54.03%	54.18%
2024	\$1,112,310	\$631,186	\$651,790	\$481,125	\$460,521	56.75%	58.60%

**SPRS Insurance Plan**

Valuation Date	Actuarial Liability	Value of Assets		Unfunded Actuarial Liability		Funding Level	
		Actuarial	Market	Actuarial	Market	Actuarial	Market
2015	\$254,839	\$167,775	\$165,018	\$87,064	\$89,821	65.84%	64.75%
2016	257,197	172,704	161,366	84,494	95,831	67.15%	62.74%
2017	276,641	180,464	178,838	96,178	97,803	65.23%	64.65%
2018	262,088	187,535	190,847	74,553	71,242	71.55%	72.82%
2019	276,809	197,395	201,206	79,415	75,604	71.31%	72.69%
2020	276,143	207,018	201,340	69,126	74,803	74.97%	72.91%
2021	272,406	223,251	247,318	49,154	25,088	81.96%	90.79%
2022	232,798	234,239	231,242	(1,441)	1,556	100.62%	99.33%
2023	244,058	245,172	248,109	(1,114)	(4,051)	100.46%	101.66%
2024	\$251,178	\$263,369	\$273,517	\$(12,191)	\$(22,339)	104.85%	108.89%

## Solvency Test

### Solvency Test

As of June 30 (\$ in Thousands)

#### KERS Nonhazardous Pension Plan

Actuarial Liabilities							
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets		
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)
2015	\$925,934	\$9,437,468	\$1,996,271	\$2,350,990	100.00%	15.10%	0.00%
2016	920,120	10,010,168	2,294,410	2,112,286	100.00%	11.90%	0.00%
2017	934,559	11,608,346	3,048,736	2,123,623	100.00%	10.20%	0.00%
2018	892,033	11,929,018	2,854,180	2,019,278	100.00%	9.40%	0.00%
2019	881,020	12,513,230	3,072,176	2,206,280	100.00%	10.60%	0.00%
2020	869,196	12,467,523	3,012,243	2,323,298	100.00%	11.70%	0.00%
2021	877,142	12,425,951	3,018,279	2,735,876	100.00%	15.00%	0.00%
2022	859,591	12,700,595	3,016,445	3,065,263	100.00%	17.40%	0.00%
2023	889,146	12,013,685	3,401,447	3,552,471	100.00%	22.20%	0.00%
2024	\$935,186	\$11,876,221	\$3,836,485	\$4,122,268	100.00%	26.80%	0.00%

#### KERS Nonhazardous Insurance Plan

Actuarial Liabilities							
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets		
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)
2015	\$-	\$1,428,350	\$985,355	\$695,018	100.00%	48.70%	0.00%
2016	-	1,483,636	973,042	743,270	100.00%	50.10%	0.00%
2017	-	1,575,294	1,108,202	823,918	100.00%	52.30%	0.00%
2018	-	1,475,954	959,552	887,121	100.00%	60.10%	0.00%
2019	-	1,686,605	1,046,461	991,427	100.00%	58.80%	0.00%
2020	-	1,589,742	975,045	1,095,959	100.00%	68.90%	0.00%
2021	-	1,609,775	964,337	1,291,472	100.00%	80.20%	0.00%
2022	-	967,051	815,335	1,409,553	100.00%	100.00%	54.30%
2023	-	1,040,344	836,765	1,532,895	100.00%	100.00%	58.90%
2024	\$-	\$1,189,231	\$905,513	\$1,712,043	100.00%	100.00%	57.70%

**KERS Hazardous Pension Plan**

Actuarial Liabilities								
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets			
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)	
2015	\$83,606	\$633,189	\$178,638	\$556,688	100.00%	74.70%	0.00%	
2016	86,705	648,482	201,519	559,487	100.00%	72.90%	0.00%	
2017	93,350	746,350	281,720	607,159	100.00%	68.80%	0.00%	
2018	89,106	810,311	252,506	639,262	100.00%	67.90%	0.00%	
2019	86,663	879,818	259,713	671,647	100.00%	66.50%	0.00%	
2020	95,528	898,128	290,114	709,587	100.00%	68.40%	0.00%	
2021	97,559	916,431	281,254	782,496	100.00%	74.70%	0.00%	
2022	94,538	946,328	275,959	832,436	100.00%	78.00%	0.00%	
2023	103,310	929,321	330,406	891,460	100.00%	84.80%	0.00%	
2024	\$116,828	\$943,102	\$382,689	\$985,075	100.00%	92.10%	0.00%	

**KERS Hazardous Insurance Plan**

Actuarial Liabilities								
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets			
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)	
2015	\$-	\$221,115	\$153,789	\$451,514	100.00%	100.00%	100.00%	
2016	-	228,361	149,384	473,160	100.00%	100.00%	100.00%	
2017	-	243,816	175,623	493,458	100.00%	100.00%	100.00%	
2018	-	248,775	144,706	511,441	100.00%	100.00%	100.00%	
2019	-	282,070	144,635	525,315	100.00%	100.00%	100.00%	
2020	-	281,924	146,053	539,251	100.00%	100.00%	100.00%	
2021	-	288,015	136,441	575,025	100.00%	100.00%	100.00%	
2022	-	232,585	114,459	597,701	100.00%	100.00%	100.00%	
2023	-	250,189	113,323	619,519	100.00%	100.00%	100.00%	
2024	\$-	\$263,737	\$115,831	\$652,349	100.00%	100.00%	100.00%	

**Solvency Test****As of June 30 (\$ in Thousands)****SPRS Pension Plan**

Actuarial Liabilities								
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets			
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)	
2015	\$41,567	\$605,855	\$86,734	\$248,388	100.00%	34.10%	0.00%	
2016	41,871	636,499	96,791	234,568	100.00%	30.30%	0.00%	
2017	44,798	773,982	148,365	261,320	100.00%	28.00%	0.00%	
2018	43,835	800,788	144,905	268,259	100.00%	28.00%	0.00%	
2019	41,948	848,396	154,974	282,162	100.00%	28.30%	0.00%	
2020	40,831	863,579	148,747	296,126	100.00%	29.60%	0.00%	
2021	42,035	860,801	150,423	323,250	100.00%	32.70%	0.00%	
2022	42,027	870,200	155,220	559,973	100.00%	59.50%	0.00%	
2023	47,394	825,683	218,717	589,848	100.00%	65.70%	0.00%	
2024	\$52,957	\$808,935	\$250,418	\$631,186	100.00%	71.50%	0.00%	

**SPRS Insurance Plan**

Actuarial Liabilities								
Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets			
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)		(1)	(2)	(3)	
2015	\$-	\$170,447	\$84,392	\$167,775	100.00%	98.40%	0.00%	
2016	-	177,094	80,103	172,704	100.00%	97.50%	0.00%	
2017	-	186,390	90,251	180,464	100.00%	96.80%	0.00%	
2018	-	183,151	78,937	187,535	100.00%	100.00%	5.60%	
2019	-	199,959	76,850	197,395	100.00%	98.70%	0.00%	
2020	-	207,638	68,506	207,018	100.00%	99.70%	0.00%	
2021	-	206,707	65,699	223,251	100.00%	100.00%	25.20%	
2022	-	172,664	60,134	234,239	100.00%	100.00%	100.00%	
2023	-	176,587	67,471	245,172	100.00%	100.00%	100.00%	
2024	\$-	\$179,898	\$71,280	\$263,369	100.00%	100.00%	100.00%	



## Member Valuation

### Summary of Active Member Valuation Data

As of June 30 (\$ in Thousands)

#### KERS Nonhazardous Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Total Active Members	Annual Covered Payroll <sup>(1)</sup>	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
2015	348	39,056	\$1,544,234	\$40	1.20%	45.0	10.6
2016	349	37,779	1,529,249	40	2.40%	45.1	10.7
2017	342	37,234	1,531,535	41	1.62%	45.4	10.9
2018	338	35,139	1,471,477	42	1.81%	45.2	10.8
2019	331	33,696	1,437,647	43	1.88%	45.4	11.0
2020	313	31,703	1,387,761	44	2.60%	45.7	11.2
2021	321	30,186	1,349,330	45	2.12%	46.0	11.6
2022	319	29,551	1,355,267	46	2.60%	46.0	11.4
2023	320	31,383	1,615,868	51	12.27%	45.7	10.9
2024	320	32,455	\$1,861,522	\$57	11.40%	45.5	10.7

#### KERS Hazardous Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Total Active Members	Annual Covered Payroll <sup>(1)</sup>	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
2015	17	3,886	\$128,680	\$33	3.20%	40.7	7.5
2016	17	3,959	147,563	37	12.60%	40.4	7.5
2017	18	4,047	162,418	40	7.67%	40.3	7.6
2018	18	3,929	158,213	40	0.34%	39.8	7.3
2019	18	3,705	150,446	41	0.84%	39.8	7.3
2020	19	4,094	170,826	42	2.76%	39.8	7.3
2021	19	3,827	162,836	43	1.97%	40.1	7.7
2022	19	3,617	165,637	46	7.63%	40.0	7.6
2023	19	3,886	211,602	54	18.91%	39.7	7.2
2024	19	4,154	\$259,606	\$62	14.77%	39.9	7.1

#### SPRS Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Total Active Members	Annual Covered Payroll <sup>(1)</sup>	Annual Average Pay	% Increase In Average Pay	Average Age	Average Years of Service Credit
2015	1	937	\$45,765	\$49	(6.40)%	36.8	9.8
2016	1	908	45,551	50	2.71%	37.0	10.0
2017	1	903	48,598	54	7.28%	37.5	10.6
2018	1	886	48,808	55	2.36%	37.3	10.5
2019	1	883	47,752	54	(1.83)%	36.7	10.0
2020	1	798	46,145	58	6.93%	37.5	10.7
2021	1	775	45,338	59	1.17%	37.7	11.1
2022	1	844	47,885	57	(3.02)%	36.5	10.1
2023	1	868	65,913	76	33.84%	36.9	10.5
2024	1	872	\$73,295	\$84	10.69%	37.4	11.1

<sup>(1)</sup> Annual payroll included in the Schedule of Active Member Valuation Data is based upon the annualized monthly payroll for active members as of the valuation date. The annual payroll recorded in the financial section is based upon the sum of the monthly payroll for active members recorded for each month of fiscal year ended June 30, 2024.

**Summary of Retired Member Valuation Data  
As of June 30 (\$ in Thousands)**
**KERS Nonhazardous Schedule of Retired Member Valuation**

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances Added	Annualized Retirement Allowances Removed	Annualized Retirement Allowances <sup>(1)</sup>	% Increase In Allowances	Average Annual Allowance
2015	2,140	1,094	42,269	\$32,433	\$14,902	\$883,576	2.02%	\$21
2016	2,441	706	44,004	61,294	9,942	934,930	5.81%	21
2017	2,181	1,269	44,916	35,150	48,778	921,302	(1.46)%	21
2018	2,853	1,243	46,526	50,360	18,711	952,951	3.44%	20
2019	2,226	1,342	47,410	36,115	20,359	968,706	1.65%	20
2020	1,806	1,883	47,333	29,576	30,319	967,963	(0.08)%	20
2021	2,026	1,659	47,700	32,264	27,794	972,434	0.46%	20
2022	2,471	1,976	48,195	42,661	33,726	981,369	0.92%	20
2023	2,115	1,901	48,409	35,508	32,596	984,280	0.30%	20
2024	2,031	1,966	48,474	\$34,573	\$34,595	\$984,257	0.00%	\$20

**KERS Hazardous Schedule of Retired Member Valuation**

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances Added	Annualized Retirement Allowances Removed	Annualized Retirement Allowances <sup>(1)</sup>	% Increase In Allowances	Average Annual Allowance
2015	203	65	3,758	\$3,144	\$985	\$56,431	3.98%	\$15
2016	237	29	3,966	3,028	458	59,001	4.55%	15
2017	206	79	4,093	2,771	2,609	59,162	0.27%	14
2018	321	44	4,370	5,394	507	64,050	8.26%	15
2019	227	60	4,537	4,242	769	67,523	5.42%	15
2020	214	123	4,628	3,102	1,543	69,081	2.31%	15
2021	263	165	4,726	3,681	1,959	70,803	2.49%	15
2022	300	176	4,850	4,978	2,093	73,689	4.08%	15
2023	210	173	4,887	3,101	1,924	74,867	1.60%	15
2024	207	160	4,934	\$3,281	\$1,911	\$76,237	1.83%	\$15

**SPRS Schedule of Retired Member Valuation**

Valuation Date	Number Added	Number Removed	Total Retirees & Beneficiaries	Annualized Retirement Allowances Added	Annualized Retirement Allowances Removed	Annualized Retirement Allowances <sup>(1)</sup>	% Increase In Allowances	Average Annual Allowance
2015	62	15	1,460	\$1,947	\$449	\$54,930	2.80%	\$38
2016	65	10	1,515	2,004	285	56,650	3.13%	37
2017	30	9	1,536	1,046	443	57,253	1.06%	37
2018	81	17	1,600	2,837	464	59,626	4.14%	37
2019	74	27	1,647	2,735	957	61,404	2.98%	37
2020	61	39	1,669	2,411	1,382	62,432	1.68%	37
2021	55	51	1,673	1,967	1,699	62,700	0.43%	37
2022	76	47	1,702	2,948	1,868	63,780	1.72%	37
2023	43	48	1,697	1,308	1,793	63,294	(0.76)%	37
2024	41	62	1,676	\$1,399	\$2,070	\$62,623	(1.06)%	\$37

<sup>(1)</sup> The Annualized Retirement Allowance is the annualized value of the monthly retirement allowance for retired members and beneficiaries as of the valuation date. Consequently, the values will not match the fiscal year total benefit payments recorded in the financial section. Headcounts and hazardous benefits for members receiving benefits in both the nonhazardous and hazardous fund have been included in the hazardous funds' summaries above. Additional \$25,136,000 in KERS Nonhazardous annual benefits are not included in the summary above for June 30, 2024.

## Summary of Benefit Provisions KERS, and SPRS Plans

### Plan Funding

State statute requires active members to contribute 5% of creditable compensation for nonhazardous members and 8% of creditable compensation for hazardous members. For members participating on or after September 1, 2008, an additional 1% of creditable compensation is required. This amount is credited to the Insurance Fund and is non-refundable to the member. Employers contribute at the rate determined by the Boards to be necessary for the actuarial soundness of the systems, as required by KRS 61.565. KERS rates are subject to state budget approval.

### Membership Eligibility

For all regular full-time non-school board employees to be eligible for membership, they must average 100 or more hours of work per month over a fiscal or calendar year. For all regular full-time school board employees to be eligible for membership, they must average 80 hours of work per month over the actual days worked during the school year.

#### Retirement Eligibility for Nonhazardous Employees

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

#### Retirement Eligibility for Hazardous

Age	Years of Service	Allowance Reduction
<b>Tier 1 Members Whose Participation Began Before 9/1/2008</b>		
55	1 month	None
Any	20	None
50	15	6.5% per year for first five years, and 4.5% for next five years before age 55 or 20 years of service.
<b>Tier 2 Members Whose Participation Began On or After 9/1/2008 but before 1/1/2014</b>		
60	5	None
Any	25	None
50	15	6.5% per year for first five years, and 4.5% for next five years before age 60 or 25 years of service.
<b>Tier 3 Members Whose Participation Began On or After 1/1/2014</b>		
60	5	None
Any	25	None

**Benefit Formula for Nonhazardous  
Tier 1: Members whose participation began before 9/1/2008**

Final Compensation	Benefit Factor	Years of Service
Average of the five highest years of compensation	KERS 1.97% if:	Member does not have 13 months of service credit for 1/1/1998-1/1/1999.
	KERS 2.00% if:	Member has 13 months of service credit from 1/1/1998-1/1/1999.
	KERS 2.20% if:	Member has 20 or more years of service, including 13 months from 1/1/1998-1/1/1999 and retires by 1/1/2009.

If a member retires with less than four years of service credit, the member's benefit is equal to the actuarially equivalent of two times their member contribution balance with interest.

**Benefit Formula Nonhazardous  
Tier 2: Members whose participation began on or after 9/1/2008 but before 1/1/2014**

Final Compensation	Benefit Factor	Years of Service
Average of the last five years of compensation	KERS increasing percent based on service at retirement up to 30 years* plus 2.00% for each year of service over 30 years	
	*Service	Multiplier
	10 years or less	1.10%
	10-20 years	1.30%
	20-26 years	1.50%
	26-30 years	1.75%

Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).

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**Benefit Formula for Hazardous for Tier 1: Members whose participation began before 9/1/2008**

Final Compensation	Benefit Factor	Years of Service
Average of the three highest years of compensation	KERS 2.49% if: _____  SPRS 2.50% if: _____	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
If a member retires with less than four years of service, the member's benefit is equal to the actuarially equivalent of two times their member contribution balance with interest.		

**Benefit Formula for Hazardous for Tier 2: Members whose participation began on or after 9/1/2008 but before 1/1/2014**

Final Compensation	Benefit Factor	Years of Service										
Average of the three highest complete years of compensation	KERS, & SPRS increasing percent based on service at retirement* <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr style="background-color: #d3d3d3;"> <th>*Service</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>10 years or less</td> <td>1.30%</td> </tr> <tr> <td>10-20 years</td> <td>1.50%</td> </tr> <tr> <td>20-25 years</td> <td>2.25%</td> </tr> <tr> <td>25+ years</td> <td>2.50%</td> </tr> </tbody> </table>	*Service	Multiplier	10 years or less	1.30%	10-20 years	1.50%	20-25 years	2.25%	25+ years	2.50%	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
*Service	Multiplier											
10 years or less	1.30%											
10-20 years	1.50%											
20-25 years	2.25%											
25+ years	2.50%											

**Benefit Formula for Hazardous for Tier 3: Members whose participation began on or after 1/1/2014**

Each year that the member is active, a 7.50% employer pay credit and the employee's 8.00% contribution will be credited to each member's hypothetical cash balance account. The hypothetical account will earn interest at a minimum rate of 4%, annually. If the geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest in that year equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year. At retirement, the member's hypothetical account balance may be converted into an annuity based on an actuarial factor.

**Benefit Formula  
Tier 3: Members whose participation began on or after 1/1/2014  
Accumulated Account Balance / Actuarial Factor = Monthly Life Annuity**

Accumulated Account Balance					
	Member	Employer	Base Annual	Upside Sharing	Actuarial
	Contributions	Contributions	Interest	Interest (FY 2023)	Factor
KERS Nonhazardous	5.00%	4.00%	4.00%	5.79%	
KERS Hazardous	8.00%	7.50%	4.00%	6.60%	
SPRS	8.00%	7.50%	4.00%	6.15%	

*Note: Accumulated Account Balance is composed of member contributions, employer contributions, annual interest and annual upside sharing interest. For additional information on the calculation of the annual interest for Tier 3 see Upside Sharing Interest in Note B.*

*Note: Please see Plan Provisions for additional details.*

## Summary of Benefit Provisions KERS, and SPRS Plans

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### Post-Retirement Death Benefits

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

### Disability Benefits

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

Members participating on or after 8/1/2004 but before 1/1/2014 may qualify for disability retirement provided the member has at least 60 months of service credit. Nonhazardous benefits are computed as the higher of 20% of the member's monthly final rate of pay or the amount calculated under the Benefit Formula based upon actual service. Hazardous benefits are computed as the higher of 25% of the member's monthly final rate of pay or the amount calculated under the Benefit Formula based upon actual service.

Members participating on or after 1/1/2014 may qualify for disability retirement provided the member has at least 60 months of service credit. The benefit to the member is the higher of 20% or 25% of the member's monthly final rate of pay for nonhazardous and hazardous, respectively or the Annuity amount using the factor at the member's normal retirement age.

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

\* Service requirements may be waived if line of duty or duty related.

### Pre-Retirement Death Benefits

The beneficiary of a deceased member is eligible for a monthly benefit if the member died while in the line of duty or a duty related death. The beneficiary of a deceased member who did not die in the line of duty is eligible for a monthly benefit if the member was: (1) eligible for retirement at the time of death or, (2) under the age of 55 with at least 60 months of service credit and currently working for a participating agency at the time of death or (3) no longer working for a participating agency but at the time of death had at least 144 months of service credit. If the beneficiary of a deceased member is not eligible for a monthly benefit, the beneficiary will receive a lump-sum payment of the member's accumulated account balance.

### Cost of Living Adjustment (COLA)

SB2 of 2013 eliminated all future COLAs unless the State Legislature so authorizes on a biennial basis and either (i) the system is over 100% funded or (ii) the Legislature appropriates sufficient funds to pay the increased liability for the COLA.

### Insurance Benefits

For members participating prior to July 1, 2003, the system pays a percentage of the monthly premium for single coverage based on the service credit accrued at retirement. Hazardous members also receive a percentage paid for eligible spouse or dependent coverage based on the accrued hazardous service at retirement.

For members participating on or after July 1, 2003, a dollar contribution amount is paid toward insurance coverage. Any portion paid toward eligible spouse and dependent coverage is based on the member's hazardous service credit. The member must have a minimum of 10 years of service to be eligible for insurance benefits if the participation date is between July 1, 2003 and August 31, 2008, and a 15 years of service if the participation date is on or after September 1, 2008. A nonhazardous member will receive \$10 for each year of service and hazardous members receive \$15 for each year of service. Since July 2004, the dollar amount increases annually on July 1 by 1.5%. Members can earn an additional dollar contribution amount if they surpass the career threshold defined in Kentucky Revised Statute 61.702.

## **Refunds**

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

## **Interest on Accounts**

For employees participating prior to September 1, 2008, the interest paid is set by the Board of Trustees and will not be less than 2.0%, for employees participating on or after September 1, 2008 but before January 1, 2014, interest will be credited at a rate of 2.5%. For employees participating on or after January 1, 2014, interest will be credited at a minimum rate of 4.0%.

## **Benefit Changes since the Prior Valuation**

There have been no benefit changes since the prior valuation.

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## Plan Statistics

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### Definitions

Active members are those members who are currently employed by a participating agency and contributing to KRS as a condition of employment.

Inactive members are those members who are no longer employed with a participating agency but have not yet retired or taken a refund of contributions.

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

A single member may have multiple accounts. For these tables, persons who participate in two or more of the KRS plans; SPRS, KERS Hazardous or KERS Nonhazardous, will appear in each plan in which they have service credit.

These tables do not include individuals receiving payments under dependent child accounts, Qualified Domestic Relations Orders (QDRO), or multiple beneficiary accounts.

**KERS Nonhazardous Membership As of June 30**

Fiscal Year	Active	Inactive	Retired	Total
2015	40,835	46,867	44,515	132,217
2016	39,561	48,506	46,366	134,433
2017	38,128	49,693	47,317	135,138
2018	36,160	50,772	48,985	135,917
2019	34,700	51,944	49,886	136,530
2020	32,688	54,234	50,518	137,440
2021	31,066	55,437	51,783	138,286
2022	30,293	56,636	52,429	139,358
2023	32,093	57,247	52,524	141,864
2024	33,135	58,154	52,686	143,975

**KERS Hazardous Membership As of June 30**

Fiscal Year	Active	Inactive	Retired	Total
2015	4,559	4,643	3,761	12,963
2016	4,585	5,054	3,992	13,631
2017	4,660	5,453	4,120	14,233
2018	4,551	5,889	4,397	14,837
2019	4,402	6,414	4,563	15,379
2020	4,667	7,263	4,696	16,626
2021	4,412	8,022	4,890	17,324
2022	4,295	8,568	5,013	17,876
2023	4,581	9,031	5,048	18,660
2024	4,910	9,454	5,084	19,448

**SPRS Membership As of June 30**

Fiscal Year	Active	Inactive	Retired	Total
2015	946	418	1,461	2,825
2016	934	430	1,539	2,903
2017	934	453	1,557	2,944
2018	917	470	1,623	3,010
2019	932	511	1,666	3,109
2020	798	592	1,698	3,088
2021	775	638	1,734	3,147
2022	844	670	1,748	3,262
2023	868	718	1,749	3,335
2024	872	749	1,736	3,357

**KRS Membership As of June 30**

Fiscal Year	Active	Inactive	Retired	Total
2015	46,340	51,928	49,737	148,005
2016	45,080	53,990	51,897	150,967
2017	43,722	55,599	52,994	152,315
2018	41,628	57,131	55,005	153,764
2019	40,034	58,869	56,115	155,018
2020	38,153	62,089	56,912	157,154
2021	36,253	64,097	58,407	158,757
2022	35,432	65,874	59,190	160,496
2023	37,542	66,996	59,321	163,859
2024	38,917	68,357	59,506	166,780

## Participating Employers

### Principal Participating Employers in KERS As of June 30, 2024

Participating Employer	Rank	Covered Employees	% of Total System
DEPARTMENT FOR COMMUNITY BASED SERVICES	1	4,566	12.46%
DEPARTMENT OF HIGHWAYS	2	3,611	9.86%
DEPARTMENT OF CORRECTIONS	3	3,572	9.75%
JUDICIAL DEPARTMENT ADMINISTRATIVE OFFICE OF THE COURTS	4	1,469	4.01%
DEPARTMENT OF JUVENILE JUSTICE	5	1,137	3.10%
UNIFIED PROSECUTORIAL SYSTEM	6	896	2.45%
KENTUCKY STATE POLICE	7	885	2.42%
DEPARTMENT OF REVENUE	8	692	1.89%
DEPARTMENT OF PARKS	9	683	1.86%
DEPARTMENT OF VETERANS AFFAIRS	10	672	1.83%
ALL OTHERS		18,454	50.37%
<b>Total</b>		<b>36,637</b>	<b>100.00%</b>

### Schedule of Participating Employers in KERS As of June 30, 2024

Agency Classification	Number of Agencies	Covered Employees
County Attorneys	57	277
Health Departments	60	2205
Master Commissioner	30	56
Non-P1 State Agencies	32	603
Other Retirement Systems	1	20
P1 State Agencies	132	29,417
Regional Mental Health Units	10	2,679
Universities	7	1,380
<b>Total</b>	<b>329</b>	<b>36,637</b>

### Total Employees By Tier Levels

<b>Tier 1</b>	<b>12,434</b>
<b>Tier 2</b>	<b>5,203</b>
<b>Tier 3</b>	<b>19,000</b>

### Schedule of Participating Employers in SPRS As of June 30, 2024

Agency Classification	Number of Agencies	Covered Employees
Kentucky State Police - Uniformed Police Officers	1	872

### Total Employees By Tier Levels

<b>Tier 1</b>	<b>310</b>
<b>Tier 2</b>	<b>180</b>
<b>Tier 3</b>	<b>382</b>

## Member Monthly Benefit

### Average Monthly Benefit by Length of Service in KRS As of June 30, 2024 (in Whole \$)

Service Credit Range	KERS Nonhazardous		KERS Hazardous		SPRS	
	Number of Accounts	Average Monthly Benefit	Number of Accounts	Average Monthly Benefit	Number of Accounts	Average Monthly Benefit
Under 5 years	7,258	\$227	997	\$220	160	\$766
5 or more but less than 10	6,238	442	876	576	56	918
10 or more but less than 15	5,843	738	821	1,047	71	1,454
15 or more but less than 20	5,095	1,094	761	1,578	130	2,139
20 or more but less than 25	5,500	1,449	1,349	2,074	555	2,770
25 or more but less than 30	13,699	2,310	214	2,982	492	3,796
30 or more but less than 35	6,611	3,248	60	3,764	216	4,811
35 or more	2,442	4,603	6	4,405	56	6,304
<b>Total</b>	<b>52,686</b>	<b>\$1,644</b>	<b>5,084</b>	<b>\$1,273</b>	<b>1,736</b>	<b>\$3,083</b>

*Note: These tables reflect the Average Monthly Pension Benefit. A single member may have multiple accounts, which contribute to one pension. These tables do not reflect dependent child accounts, Qualified Domestic Relations Order (QDRO) accounts or multiple beneficiary accounts.*

## Fiduciary Net Position

### Fiduciary Net Position - KERS

As of June 30 (\$ in Thousands)

Fiscal Year	Nonhazardous			Hazardous		
	Pension	Insurance	Total	Pension	Insurance	Total
2015	\$2,327,782	\$665,639	\$2,993,421	\$552,468	\$439,113	\$991,581
2016	1,980,292	668,318	2,648,610	527,880	437,397	965,277
2017	2,092,781	781,406	2,874,187	605,921	484,442	1,090,363
2018	2,048,890	846,762	2,895,652	651,173	513,384	1,164,557
2019	2,286,625	942,136	3,228,761	687,877	527,108	1,214,985
2020	2,362,231	1,006,498	3,368,729	697,366	514,740	1,212,106
2021	3,085,014	1,353,123	4,438,137	874,928	624,889	1,499,817
2022	3,076,743	1,301,522	4,378,265	819,237	579,902	1,399,139
2023	3,607,206	1,465,489	5,072,695	902,567	616,322	1,518,889
2024	\$4,297,571	\$1,692,094	\$5,989,665	\$1,029,921	\$667,917	\$1,697,838

### Fiduciary Net Position - SPRS

As of June 30 (\$ in Thousands)

Fiscal Year	Pension	Insurance	Total
2015	\$247,229	\$164,714	\$411,943
2016	218,013	160,949	378,962
2017	256,383	178,191	434,574
2018	268,425	189,994	458,419
2019	287,242	200,128	487,370
2020	295,044	200,245	495,289
2021	357,660	246,004	603,664
2022	552,926	230,015	782,941
2023	592,826	246,797	839,623
2024	\$653,216	\$272,091	\$925,307

### Fiduciary Net Position - KRS

As of June 30 (\$ in Thousands)

Fiscal Year	Pension	Insurance	Total
2015	\$3,127,479	\$1,269,466	\$4,396,945
2016	2,726,185	1,266,664	3,992,849
2017	2,955,085	1,444,039	4,399,124
2018	2,968,488	1,550,140	4,518,628
2019	3,261,744	1,669,372	4,931,116
2020	3,354,641	1,721,483	5,076,124
2021	4,317,602	2,224,016	6,541,618
2022	4,448,906	2,111,439	6,560,345
2023	5,102,599	2,328,608	7,431,207
2024	\$5,980,708	\$2,632,102	\$8,612,810

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

## Changes in Fiduciary Net Position

### Changes in Fiduciary Net Position - KERS Nonhazardous Pension Plan

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Members' Contributions	\$100,424	\$101,677	\$100,544	\$104,972	\$93,759	\$96,594	\$90,202	\$89,607	\$84,579	\$96,615
Employers' Contributions	520,948	512,670	644,803	619,988	948,866	948,578	1,134,180	141,027	136,445	156,007
General Fund Appropriations	-	-	58,193	67,574	75,858	-	-	912,705	240,000	240,000
Health Insurance Contributions (HB1)	4,181	4,817	5,156	5,786	5,963	1	(8)	(13)	(12)	(18)
Actuarially Accrued Liability Contributions	-	-	-	-	-	-	-	-	898,545	899,663
Employer Cessation	-	-	53,215	17	10,643	20	-	63,113	-	-
Net Investment Income (Loss)	44,570	(20,662)	220,985	147,577	114,918	53,696	528,439	(165,904)	220,258	356,018
Bank of America Settlement	8,442	-	-	-	-	-	-	-	-	-
Northern Trust Settlement	-	-	-	301	37	-	-	-	-	-
Pension Spiking	743	414	909	1,564	95	(6)	52	24	16	25
<b>Total Additions</b>	<b>679,308</b>	<b>598,916</b>	<b>1,083,805</b>	<b>947,779</b>	<b>1,250,139</b>	<b>1,098,883</b>	<b>1,752,865</b>	<b>1,040,559</b>	<b>1,579,831</b>	<b>1,748,310</b>
<b>Deductions</b>										
Benefit Payments	905,790	923,288	948,489	967,374	988,349	999,813	1,009,501	1,023,375	1,023,704	1,032,124
Refunds	13,552	12,130	11,819	13,603	12,342	11,523	8,953	12,116	11,847	11,693
Administrative Expenses	10,474	10,807	10,974	10,692	11,712	11,941	11,627	13,339	13,817	14,128
Capital Project Expenses	-	181	34	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>929,816</b>	<b>946,406</b>	<b>971,316</b>	<b>991,669</b>	<b>1,012,403</b>	<b>1,023,277</b>	<b>1,030,081</b>	<b>1,048,830</b>	<b>1,049,368</b>	<b>1,057,945</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$(250,508)</b>	<b>\$(347,490)</b>	<b>\$112,489</b>	<b>\$(43,890)</b>	<b>\$237,736</b>	<b>\$75,606</b>	<b>\$722,784</b>	<b>\$(8,271)</b>	<b>\$530,463</b>	<b>\$690,365</b>

**KRS DRAFT 12-4-2024****Changes in Fiduciary Net Position - KERS Nonhazardous Insurance Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Employers' Contributions	\$132,208	\$131,935	\$133,024	\$132,364	\$173,576	\$170,479	\$153,571	\$31,611	\$35,549	\$41,362
Actuarially Accrued Liability Contributions	-	-	-	-	-	-	-	101,637	87,674	87,782
Net Investment Income (Loss)	8,690	(3,904)	90,915	61,331	43,202	10,624	258,595	(85,555)	128,052	166,714
Retired Re-employed (HB1)	3,732	3,880	3,765	4,055	3,996	4,502	4,705	5,041	5,885	7,484
Member Drug Reimbursement	-	-	1	5	3	2	-	-	4	4
Premiums Received from Retirees	272	240	248	216	184	183	182	182	(27)	79
Humana Gain Share Payment	-	-	-	-	3,079	-	17,167	7,321	4,851	8,440
Employer Cessation	-	-	15,567	-	1,391	25	28,400	2,405	-	-
Northern Trust Settlement	-	-	-	32	4	-	-	-	-	-
Health Insurance Contribution (HB1)	-	-	-	-	-	6,127	6,326	6,560	8,370	10,603
<b>Total Additions</b>	<b>144,902</b>	<b>132,151</b>	<b>243,520</b>	<b>198,003</b>	<b>225,435</b>	<b>191,942</b>	<b>468,946</b>	<b>69,202</b>	<b>270,358</b>	<b>322,468</b>
<b>Deductions</b>										
Health Insurance Premiums	123,127	126,550	127,648	130,069	127,221	125,006	119,897	118,451	103,952	93,751
Administrative Expenses	893	818	861	760	875	847	815	821	771	727
Self-Funded Healthcare Costs	2,145	2,095	1,920	1,819	1,962	1,724	1,609	1,525	1,668	1,378
Excise Tax Insurance	3	6	3	3	3	3	-	6	-	7
<b>Total Deductions</b>	<b>126,168</b>	<b>129,469</b>	<b>130,432</b>	<b>132,651</b>	<b>130,061</b>	<b>127,580</b>	<b>122,321</b>	<b>120,803</b>	<b>106,391</b>	<b>95,863</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$18,734</b>	<b>\$2,679</b>	<b>\$113,088</b>	<b>\$65,352</b>	<b>\$95,374</b>	<b>\$64,362</b>	<b>\$346,625</b>	<b>\$(51,601)</b>	<b>\$163,967</b>	<b>\$226,605</b>

**KRS DRAFT 12-4-2024****Changes in Fiduciary Net Position - KERS Hazardous Pension Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Members' Contributions	\$12,670	\$15,055	\$17,523	\$17,891	\$17,118	\$19,769	\$19,961	\$20,588	\$17,459	\$21,568
Employers' Contributions	28,374	23,690	37,630	32,790	55,229	59,096	62,182	59,052	64,020	89,898
General Fund Appropriations	-	-	15,000	10,000	-	-	-	-	-	-
Health Insurance Contributions (HB1)	537	684	811	909	934	4	3	(5)	(7)	(8)
Net Investment Income (Loss)	8,701	(1,652)	70,993	51,848	36,704	6,805	174,922	(51,841)	77,261	102,139
Actuarially Accrued Liability Contributions (AALC)	767	-	-	-	-	-	-	-	-	-
Northern Trust Settlement	-	-	-	33	4	-	-	-	-	-
Pension Spiking	162	70	344	871	29	19	18	3	29	1
<b>Total Additions</b>	<b>51,211</b>	<b>37,847</b>	<b>142,301</b>	<b>114,342</b>	<b>110,018</b>	<b>85,693</b>	<b>257,086</b>	<b>27,797</b>	<b>167,520</b>	<b>213,598</b>
<b>Deductions</b>										
Benefit Payments	56,774	59,306	61,231	65,616	69,527	71,861	73,889	77,047	78,636	80,528
Refunds	2,609	2,211	2,106	2,501	2,684	3,168	4,380	4,976	4,041	4,133
Administrative Expenses	844	903	919	975	1,103	1,176	1,255	1,465	1,513	1,583
Capital Project Expenses	-	15	4	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>60,227</b>	<b>62,435</b>	<b>64,260</b>	<b>69,092</b>	<b>73,314</b>	<b>76,205</b>	<b>79,524</b>	<b>83,488</b>	<b>84,190</b>	<b>86,244</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$(9,016)</b>	<b>\$(24,588)</b>	<b>\$78,041</b>	<b>\$45,250</b>	<b>\$36,704</b>	<b>\$9,488</b>	<b>\$177,562</b>	<b>\$(55,691)</b>	<b>\$83,330</b>	<b>\$127,354</b>



**KRS DRAFT 12-4-2024****Changes in Fiduciary Net Position - KERS Hazardous Insurance Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Employers' Contributions	\$14,173	\$15,929	\$4,688	\$4,302	\$3,725	\$4,482	\$23	\$1	\$37	\$45
Net Investment Income (Loss)	7,793	(882)	59,188	42,567	28,049	638	126,475	(27,406)	52,991	67,435
Retired Re-employed (HB1)	709	837	932	986	1,245	1,294	1,276	1,280	1,452	1,865
Actuarially Accrued Liability Contributions (AALC)	-	-	-	-	-	-	-	-	-	-
Member Drug Reimbursement	-	-	-	-	-	1	-	1	-	-
Premiums Received from Retirees	14	(13)	(51)	(50)	(19)	(5)	(11)	(54)	(69)	(24)
Humana Gain Share	-	-	-	-	213	-	1,253	548	368	651
Northern Trust Settlement	-	-	-	18	2	-	-	-	-	-
Health Insurance Contributions (HB1)	-	-	-	-	-	1,100	1,164	1,232	1,592	2,094
<b>Total Additions</b>	<b>22,689</b>	<b>15,871</b>	<b>64,757</b>	<b>47,823</b>	<b>33,215</b>	<b>7,510</b>	<b>130,180</b>	<b>(24,398)</b>	<b>56,371</b>	<b>72,066</b>
<b>Deductions</b>										
Health Insurance Premiums	17,000	17,490	17,562	18,697	19,280	19,630	19,800	20,355	19,748	20,260
Administrative Expenses	101	97	105	104	117	123	118	125	123	117
Self-Funded Healthcare Costs	-	-	45	79	94	125	112	109	80	94
Excise Tax Insurance	-	-	-	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>17,101</b>	<b>17,587</b>	<b>17,712</b>	<b>18,880</b>	<b>19,491</b>	<b>19,878</b>	<b>20,030</b>	<b>20,589</b>	<b>19,951</b>	<b>20,471</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$5,588</b>	<b>\$(1,716)</b>	<b>\$47,045</b>	<b>\$28,943</b>	<b>\$13,724</b>	<b>\$(12,368)</b>	<b>\$110,150</b>	<b>\$(44,987)</b>	<b>\$36,420</b>	<b>\$51,595</b>

**KRS DRAFT 12-4-2024****Changes in Fiduciary Net Position - SPRS Pension Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Members' Contributions	\$5,150	\$5,149	\$5,349	\$5,522	\$5,062	\$4,767	\$4,752	\$4,773	\$5,250	\$5,703
Employers' Contributions	31,444	25,723	38,028	36,486	58,947	58,358	59,262	62,341	58,121	61,998
General Fund Appropriations	-	-	25,000	10,000	1,086	1,086	384	215,000	-	-
Health Insurance Contributions (HB1)	94	113	131	155	176	-	-	(26)	(8)	(12)
Net Investment Income (Loss)	3,427	(3,841)	26,795	18,487	14,863	6,359	61,966	(22,148)	40,801	57,058
Bank of America Settlement	646	-	-	-	-	-	-	-	-	-
Northern Trust Settlement	-	-	-	21	3	-	-	-	-	-
Pension Spiking	546	99	210	392	15	9	4	-	-	-
<b>Total Additions</b>	<b>41,307</b>	<b>27,243</b>	<b>95,513</b>	<b>71,063</b>	<b>80,152</b>	<b>70,579</b>	<b>126,368</b>	<b>259,940</b>	<b>104,164</b>	<b>124,747</b>
<b>Deductions</b>										
Benefit Payments	54,766	56,268	56,935	58,805	60,948	62,423	63,249	64,121	63,805	63,823
Refunds	85	11	26	22	162	88	273	280	166	220
Administrative Expenses	201	176	181	194	225	266	230	273	293	314
Capital Project Expenses	-	4	1	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>55,052</b>	<b>56,459</b>	<b>57,143</b>	<b>59,021</b>	<b>61,335</b>	<b>62,777</b>	<b>63,752</b>	<b>64,674</b>	<b>64,264</b>	<b>64,357</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$(13,745)</b>	<b>\$(29,216)</b>	<b>\$38,370</b>	<b>\$12,042</b>	<b>\$18,817</b>	<b>\$7,802</b>	<b>\$62,616</b>	<b>\$195,266</b>	<b>\$39,900</b>	<b>\$60,390</b>

**KRS DRAFT 12-4-2024****Changes in Fiduciary Net Position - SPRS Insurance Plan**

As of June 30 (\$ in Thousands)

<b>Additions</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Employers' Contributions	\$10,379	\$10,228	\$9,222	\$9,397	\$13,282	\$13,133	\$9,284	\$8,782	\$9,289	\$10,158
Net Investment Income (Loss)	2,921	(48)	21,570	16,420	10,766	1,108	50,051	(10,787)	21,426	26,836
Retired Re-employed (HB1)	3	9	-	-	6	-	-	-	-	5
Member Drug Reimbursement	-	-	-	-	-	-	-	-	-	-
Premiums Received from Retirees	1	(29)	(55)	(41)	(13)	(12)	(14)	(27)	(131)	(13)
Humana Gain Share	-	-	-	-	144	-	811	342	224	390
Northern Trust Settlement	-	-	-	8	1	-	-	-	-	-
Health Insurance contributions (HB1)	-	-	-	-	-	196	209	256	356	408
<b>Total Additions</b>	<b>13,304</b>	<b>10,160</b>	<b>30,737</b>	<b>25,784</b>	<b>24,186</b>	<b>14,425</b>	<b>60,341</b>	<b>(1,434)</b>	<b>31,164</b>	<b>37,784</b>
<b>Deductions</b>										
Health Insurance Premiums	13,483	13,836	13,405	13,881	13,942	14,215	14,487	14,461	14,290	12,412
Administrative Expenses	65	89	66	62	69	71	71	73	74	71
Self-Funded Healthcare Costs	-	-	24	38	40	22	25	21	18	7
Excise Tax Insurance	-	-	-	-	-	-	-	-	-	-
<b>Total Deductions</b>	<b>13,548</b>	<b>13,925</b>	<b>13,495</b>	<b>13,981</b>	<b>14,051</b>	<b>14,308</b>	<b>14,583</b>	<b>14,555</b>	<b>14,382</b>	<b>12,490</b>
<b>Net Increase (Decrease) in Fiduciary Net Position</b>	<b>\$(244)</b>	<b>\$(3,765)</b>	<b>\$17,242</b>	<b>\$11,803</b>	<b>\$10,135</b>	<b>\$117</b>	<b>\$45,758</b>	<b>\$(15,989)</b>	<b>\$16,782</b>	<b>\$25,294</b>

## Schedule of Benefit Expenses

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The following tables include individuals receiving a monthly benefit as of June 30 in the indicated fiscal year. A single member may have multiple accounts which contribute to one pension. This table represents all individuals receiving a benefit including dependent children, Qualified Domestic Relations Order (QDRO) accounts and multiple beneficiary accounts. If a member has died or a disability decision is pending, the monthly benefit amount is reflected as zero until the account status changes.

**Schedule of Benefit Expenses - KERS Nonhazardous**

As of June 30 (in Whole \$)

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
<b>Fiscal Year 2015</b>				
Average Benefit	\$992	\$1,901	\$996	\$909
Number of Accounts	6,896	33,940	2,696	983
Total Monthly Benefits	\$6,843,193	\$64,503,048	\$2,684,720	\$893,407
% of Total Monthly Benefits	9.13%	86.09%	3.58%	1.19%
<b>Fiscal Year 2016</b>				
Average Benefit	\$989	\$1,886	\$1,005	\$902
Number of Accounts	7,390	35,192	2,770	1,014
Total Monthly Benefits	\$7,312,293	\$66,383,638	\$2,784,928	\$914,804
% of Total Monthly Benefits	9.45%	85.77%	3.60%	1.18%
<b>Fiscal Year 2017</b>				
Average Benefit	\$992	\$1,883	\$1,013	\$924
Number of Accounts	7,628	35,890	2,772	1,028
Total Monthly Benefits	\$7,565,780	\$67,591,003	\$2,807,938	\$950,318
% of Total Monthly Benefits	9.59%	85.65%	3.56%	1.20%
<b>Fiscal Year 2018</b>				
Average Benefit	\$998	\$1,879	\$1,019	\$940
Number of Accounts	8,070	37,141	2,767	1,007
Total Monthly Benefits	\$8,049,794	\$69,780,011	\$2,818,593	\$946,466
% of Total Monthly Benefits	9.87%	85.52%	3.45%	1.16%
<b>Fiscal Year 2019</b>				
Average Benefit	\$993	\$1,876	\$1,029	\$933
Number of Accounts	8,387	37,751	2,751	997
Total Monthly Benefits	\$8,328,706	\$70,826,696	\$2,831,527	\$930,110
% of Total Monthly Benefits	10.04%	85.42%	3.41%	1.12%
<b>Fiscal Year 2020</b>				
Average Benefit	\$984	\$1,872	\$1,031	\$937
Number of Accounts	8,622	38,233	2,676	987
Total Monthly Benefits	\$8,483,484	\$71,585,386	\$2,759,983	\$924,459
% of Total Monthly Benefits	10.13%	85.47%	3.30%	1.10%
<b>Fiscal Year 2021</b>				
Average Benefit	\$984	\$1,864	\$1,036	\$949
Number of Accounts	9,046	39,020	2,698	1,019
Total Monthly Benefits	\$8,897,420	\$72,724,923	\$2,796,355	\$966,951
% of Total Monthly Benefits	10.42%	85.17%	3.27%	1.13%
<b>Fiscal Year 2022</b>				
Average Benefit	\$987	\$1,860	\$1,031	\$966
Number of Accounts	9,279	39,508	2,609	1,033
Total Monthly Benefits	\$9,155,941	\$73,489,369	\$2,690,544	\$997,608
% of Total Monthly Benefits	10.61%	85.12%	3.12%	1.16%
<b>Fiscal Year 2023</b>				
Average Benefit	\$982	\$1,861	\$1,034	\$956
Number of Accounts	9,464	39,505	2,531	1,024
Total Monthly Benefits	\$9,291,103	\$73,531,803	\$2,615,997	\$979,166
% of Total Monthly Benefits	10.75%	85.09%	3.03%	1.13%
<b>Fiscal Year 2024</b>				
Average Benefit	\$981	\$1,862	\$1,027	\$990
Number of Accounts	9,704	39,488	2,456	1,038
Total Monthly Benefits	\$9,519,101	\$73,544,350	\$2,523,189	\$1,027,961
% of Total Monthly Benefits	10.99%	84.91%	2.91%	1.19%

**Schedule of Benefit Expenses - KERS Hazardous**

As of June 30 (in Whole \$)

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
<b>Fiscal Year 2015</b>				
Average Benefit	\$986	\$1,556	\$661	\$714
Number of Accounts	1,912	1,566	193	90
Total Monthly Benefits	\$1,884,477	\$2,436,923	\$127,477	\$64,250
% of Total Monthly Benefits	41.76%	54.00%	2.82%	1.42%
<b>Fiscal Year 2016</b>				
Average Benefit	\$984	\$1,542	\$663	\$730
Number of Accounts	2,046	1,658	194	94
Total Monthly Benefits	\$2,011,530	\$2,557,114	\$128,663	\$68,605
% of Total Monthly Benefits	42.21%	53.65%	2.70%	1.44%
<b>Fiscal Year 2017</b>				
Average Benefit	\$993	\$1,541	\$662	\$721
Number of Accounts	2,101	1,719	205	96
Total Monthly Benefits	\$2,086,732	\$2,648,685	\$135,625	\$69,255
% of Total Monthly Benefits	42.24%	53.61%	2.75%	1.40%
<b>Fiscal Year 2018</b>				
Average Benefit	\$1,002	\$1,551	\$684	\$737
Number of Accounts	2,215	1,877	205	100
Total Monthly Benefits	\$2,218,520	\$2,911,409	\$140,174	\$73,704
% of Total Monthly Benefits	41.52%	54.48%	2.62%	1.38%
<b>Fiscal Year 2019</b>				
Average Benefit	\$1,020	\$1,561	\$708	\$744
Number of Accounts	2,269	1,987	208	99
Total Monthly Benefits	\$2,315,435	\$3,101,783	\$147,342	\$73,702
% of Total Monthly Benefits	41.07%	55.01%	2.61%	1.31%
<b>Fiscal Year 2020</b>				
Average Benefit	\$1,017	\$1,561	\$701	\$739
Number of Accounts	2,334	2,061	207	94
Total Monthly Benefits	\$2,374,412	\$3,216,376	\$145,112	\$69,433
% of Total Monthly Benefits	40.90%	55.40%	2.50%	1.20%
<b>Fiscal Year 2021</b>				
Average Benefit	\$1,021	\$1,551	\$701	\$751
Number of Accounts	2,414	2,164	215	97
Total Monthly Benefits	\$2,464,831	\$3,355,473	\$150,742	\$72,837
% of Total Monthly Benefits	40.78%	55.52%	2.49%	1.21%
<b>Fiscal Year 2022</b>				
Average Benefit	\$1,032	\$1,560	\$711	\$786
Number of Accounts	2,434	2,267	216	96
Total Monthly Benefits	\$2,512,089	\$3,536,881	\$153,476	\$75,437
% of Total Monthly Benefits	40.01%	56.34%	2.44%	1.20%
<b>Fiscal Year 2023</b>				
Average Benefit	\$1,040	\$1,565	\$703	\$843
Number of Accounts	2,441	2,296	213	98
Total Monthly Benefits	\$2,538,237	\$3,592,494	\$149,801	\$82,626
% of Total Monthly Benefits	39.89%	56.46%	2.35%	1.30%
<b>Fiscal Year 2024</b>				
Average Benefit	\$1,049	\$1,579	\$708	\$863
Number of Accounts	2,444	2,327	214	99
Total Monthly Benefits	\$2,562,636	\$3,673,571	\$151,555	\$85,417
% of Total Monthly Benefits	39.59%	56.75%	2.34%	1.32%

**KRS DRAFT 12-4-2024****Schedule of Benefit Expenses - SPRS**

As of June 30 (in Whole \$)

	Normal Retirement	Early Retirement	Disability Retirement	Beneficiary Payments
<b>Fiscal Year 2015</b>				
Average Benefit	\$3,578	\$3,189	\$1,347	\$2,153
Number of Accounts	150	1,213	75	23
Total Monthly Benefits	\$536,649	\$3,867,971	\$101,018	\$49,524
% of Total Monthly Benefits	11.78%	84.91%	2.22%	1.09%
<b>Fiscal Year 2016</b>				
Average Benefit	\$3,579	\$3,135	\$1,269	\$2,008
Number of Accounts	155	1,277	82	25
Total Monthly Benefits	\$554,743	\$4,002,993	\$104,056	\$50,196
% of Total Monthly Benefits	11.77%	84.95%	2.21%	1.07%
<b>Fiscal Year 2017</b>				
Average Benefit	\$3,611	\$3,135	\$1,278	\$2,008
Number of Accounts	149	1,303	82	25
Total Monthly Benefits	\$538,032	\$4,084,771	\$104,788	\$50,196
% of Total Monthly Benefits	11.26%	85.50%	2.19%	1.05%
<b>Fiscal Year 2018</b>				
Average Benefit	\$3,642	\$3,128	\$1,289	\$2,082
Number of Accounts	153	1,361	83	26
Total Monthly Benefits	\$557,249	\$4,257,579	\$107,019	\$54,127
% of Total Monthly Benefits	11.20%	85.56%	2.15%	1.09%
<b>Fiscal Year 2019</b>				
Average Benefit	\$3,607	\$3,138	\$1,298	\$2,082
Number of Accounts	156	1,401	83	26
Total Monthly Benefits	\$562,630	\$4,395,857	\$107,737	\$54,127
% of Total Monthly Benefits	10.99%	85.85%	2.10%	1.06%
<b>Fiscal Year 2020</b>				
Average Benefit	\$3,628	\$3,154	\$1,339	\$2,137
Number of Accounts	152	1,440	80	26
Total Monthly Benefits	\$551,470	\$4,541,490	\$107,148	\$55,558
% of Total Monthly Benefits	10.49%	86.41%	2.04%	1.06%
<b>Fiscal Year 2021</b>				
Average Benefit	\$3,542	\$3,160	\$1,287	\$2,137
Number of Accounts	156	1,468	84	26
Total Monthly Benefits	\$552,551	\$4,638,826	\$108,101	\$55,558
% of Total Monthly Benefits	10.32%	86.63%	2.02%	1.04%
<b>Fiscal Year 2022</b>				
Average Benefit	\$3,565	\$3,163	\$1,275	\$2,077
Number of Accounts	159	1,481	83	25
Total Monthly Benefits	\$566,764	\$4,683,959	\$105,787	\$51,931
% of Total Monthly Benefits	10.48%	86.60%	1.96%	0.96%
<b>Fiscal Year 2023</b>				
Average Benefit	\$3,550	\$3,146	\$1,294	\$2,077
Number of Accounts	155	1,486	83	25
Total Monthly Benefits	\$550,304	\$4,674,802	\$107,386	\$51,931
% of Total Monthly Benefits	10.22%	86.82%	1.99%	0.97%
<b>Fiscal Year 2024</b>				
Average Benefit	\$3,511	\$3,145	\$1,286	\$2,172
Number of Accounts	155	1,481	76	24
Total Monthly Benefits	\$544,210	\$4,658,414	\$97,752	\$52,129
% of Total Monthly Benefits	10.17%	87.03%	1.83%	0.97%

**Active Refunds**

Active Refunds Report For the Period ended June 30, 2024 (in Whole \$)							
System	Tier	Active Termination Refunds		Active Death Refunds		Totals	
		Number of Refunds	Amount of Refunds	Number of Refunds	Amount of Refunds	Number of Refunds	Amount of Refunds
KERS Nonhazardous	1	161	2,497,333	79	268,714	240	2,766,047
	2	73	506,667	14	81,433	87	588,100
	3	723	7,939,370	11	41,846	734	7,981,216
	<b>Total</b>	<b>957</b>	<b>10,943,370</b>	<b>104</b>	<b>391,993</b>	<b>1,061</b>	<b>11,335,363</b>
KERS Hazardous	1	13	201,697	2	5,579	15	207,276
	2	16	130,529	3	8,477	19	139,006
	3	223	3,630,505	10	68,691	233	3,699,196
	<b>Total</b>	<b>252</b>	<b>3,962,731</b>	<b>15</b>	<b>82,747</b>	<b>267</b>	<b>4,045,478</b>
SPRS	1	1	19,477	-	-	1	19,477
	2	-	-	-	-	-	-
	3	5	201,096	-	-	5	201,096
	<b>Total</b>	<b>6</b>	<b>220,573</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>220,573</b>
<b>TOTALS</b>		<b>1,215</b>	<b>\$15,126,674</b>	<b>119</b>	<b>\$474,740</b>	<b>1,334</b>	<b>\$15,601,414</b>



## Analysis of Initial Retirees

Analysis of Initial Retirees As of June 30 (in Whole \$)			
	KERS Nonhazardous	KERS Hazardous	SPRS
<b>Fiscal Year 2015</b>			
Number of Accounts	2,078	191	55
Average Service Credit (months)	204	164	251
Average Final Compensation	\$47,187	\$47,148	\$67,862
Average Monthly Benefit	\$1,308	\$1,280	\$3,009
Average System Payment for Health Insurance	\$549	\$906	\$1,376
<b>Fiscal Year 2016</b>			
Number of Accounts	2,043	205	57
Average Service Credit (months)	207	160	234
Average Final Compensation	\$47,429	\$44,494	\$65,535
Average Monthly Benefit	\$1,351	\$1,225	\$2,953
Average System Payment for Health Insurance	\$558	\$870	\$1,425
<b>Fiscal Year 2017</b>			
Number of Accounts	2,094	191	30
Average Service Credit (months)	208	146	241
Average Final Compensation	\$46,753	\$47,604	\$68,401
Average Monthly Benefit	\$1,339	\$1,150	\$2,935
Average System Payment for Health Insurance	\$558	\$872	\$1,192
<b>Fiscal Year 2018</b>			
Number of Accounts	2,682	328	68
Average Service Credit (months)	223	167	241
Average Final Compensation	\$48,552	\$51,219	\$71,132
Average Monthly Benefit	\$1,481	\$1,392	\$3,035
Average System Payment for Health Insurance	\$578	\$1,033	\$1,365
<b>Fiscal Year 2019</b>			
Number of Accounts	1,993	234	63
Average Service Credit (months)	204	174	254
Average Final Compensation	\$47,824	\$51,901	\$73,795
Average Monthly Benefit	\$1,355	\$1,532	\$3,341
Average System Payment for Health Insurance	\$569	\$1,015	\$1,391
<b>Fiscal Year 2020</b>			
Number of Accounts	1,755	195	54
Average Service Credit (months)	211	150	245
Average Final Compensation	\$47,069	\$51,021	\$78,468
Average Monthly Benefit	\$1,352	\$1,242	\$3,313
Average System Payment for Health Insurance	\$579	\$1,013	\$1,404
<b>Fiscal Year 2021</b>			
Number of Accounts	1,644	201	32
Average Service Credit (months)	201	143	217
Average Final Compensation	\$46,600	\$49,664	\$72,942
Average Monthly Benefit	\$1,276	\$1,248	\$2,872
Average System Payment for Health Insurance	\$560	\$1,019	\$1,347
<b>Fiscal Year 2022</b>			
Number of Accounts	1,910	221	46
Average Service Credit (months)	213	165	245
Average Final Compensation	\$48,028	\$52,575	\$76,377
Average Monthly Benefit	\$1,389	\$1,515	\$3,287
Average System Payment for Health Insurance	\$599	\$1,020	\$1,345

**Analysis of Initial Retirees As of June 30 (in Whole \$) Continued**

	KERS Nonhazardous	KERS Hazardous	SPRS
<b>Fiscal Year 2023</b>			
Number of Accounts	1,479	136	13
Average Service Credit (months)	190	146	186
Average Final Compensation	\$50,304	\$52,473	\$73,081
Average Monthly Benefit	\$1,332	\$1,315	\$2,737
Average System Payment for Health Insurance	\$640	\$1,151	\$1,208
<b>Fiscal Year 2024</b>			
Number of Accounts	1,483	146	16
Average Service Credit (months)	195	150	171
Average Final Compensation	\$50,548	\$57,500	\$70,651
Average Monthly Benefit	\$1,310	\$1,430	\$2,492
Average System Payment for Health Insurance	\$680	\$1,173	\$1,366

*Note: This table represents all individuals who had an initial retirement date within the fiscal year.*

**Payment Options****Payment Options Selected by Retired Members As of June 30, 2024 (in Whole \$)**

	Basic	Other	Period Certain	Pop Up	Social Security Adjustment	Survivorship	Annuity
<b>KERS Nonhazardous</b>							
Number of Accounts	19,521	23	6,745	10,142	3,174	13,055	26
Monthly Benefits	\$28,708,579	\$45,511	\$10,402,173	\$20,532,386	\$5,504,498	\$21,414,771	\$6,684
<b>KERS Hazardous</b>							
Number of Accounts	1,424	6	554	1,417	314	1,364	5
Monthly Benefits	\$1,602,073	\$5,498	\$698,705	\$2,142,484	\$360,813	\$1,662,219	\$1,387
<b>SPRS</b>							
Number of Accounts	187	1	132	756	178	482	-
Monthly Benefits	\$539,025	\$3,084	\$380,895	\$2,616,641	\$350,170	\$1,462,691	\$-
<b>KRS Total</b>							
Number of Accounts	21,132	30	7,431	12,315	3,666	14,901	31
Monthly Benefits	\$30,849,677	\$54,093	\$11,481,773	\$25,291,511	\$6,215,481	\$24,539,681	\$8,071

*The information in this table represents accounts administered by KPPA. A single member may have multiple accounts, which contribute to one pension.*

## Employer Contribution Rates

In KERS and SPRS, both the employee and the employer contribute a percentage of creditable compensation to KRS.

The employee contribution rate is set by state statute. Nonhazardous employees contribute 5% while Hazardous duty and SPRS members contribute 8%. Employees hired on or after September 1, 2008, contribute an additional 1% to health insurance.

The actual pension and insurance employer contribution rates that were paid are shown below.

Under Kentucky Revised Statutes 61.565, KERS and SPRS employer contribution rates are set by the KRS Board based on an annual actuarial valuation. However, KERS and SPRS employer rates are subject to approval by the Kentucky General Assembly through the adoption of the biennial Executive Branch Budget. The tables on pages [117](#) and [118](#) in the Actuarial Section, shows the KERS and SPRS employer contribution rates that were actuarial recommended rates in the annual valuation. House Bill 8 passed during the 2021 legislative session changed how employer contributions are allocated and collected from the participating employers in the KERS Nonhazardous Plan. Each employer will pay a normal cost contribution on the payroll of their covered employees and contribute to the Plan an allocated share of the cost required to amortize the unfunded liability.

Employer Contribution Rates (%) As of June 30										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>KERS Nonhazardous*</b>										
Actual Rate	38.77%	38.77%	48.59%	49.47%	83.43%	83.43%	84.43%	10.10%	9.97%	9.97%
<b>KERS Hazardous</b>										
Actual Rate	26.34%	26.34%	23.82%	23.70%	36.85%	36.85%	36.00%	33.43%	31.82%	31.82%
<b>SPRS</b>										
Actual Rate	75.76%	75.76%	89.21%	91.24%	146.28%	146.28%	143.48%	146.06%	99.43%	99.43%
*2021 House Bill 8 changed the manner in which KERS Nonhazardous pays employer contributions. Beginning in FY22, each employer pays the normal cost, which is the rate stated above, along with an actuarial accrued liability payment that is calculated and provided by the actuary.										

## Insurance Contracts

KRS provides medical insurance and other managed care coverage for eligible retired members.

Participation in the insurance program is optional and requires the completion of the proper forms at the time of retirement in order to obtain the insurance coverage. KRS provides access to health insurance coverage through the Kentucky Employees' Health Plan (KEHP) for recipients until they reach age 65 and/or become Medicare eligible. After a retired member becomes eligible for Medicare, coverage is available through a Medicare eligible plan offered by KRS. A retired member's spouse and/or dependents may also be covered on health insurance through KRS.

Insurance Benefits Paid to Retirees & Beneficiaries Participating in a KRS Health Insurance Plan As of June 30, 2024 (in Whole \$)			
	KERS Nonhazardous	KERS Hazardous	SPRS
Number	31,088	3,100	1,768
Average Service Credit (Months)	311	264	318
Average Monthly System Payment for Health Insurance	\$290	\$691	\$914
Average Monthly Member Payment for Health Insurance	\$36	\$34	\$24
Total Monthly Payment for Health Insurance	\$9,543,037	\$1,841,985	\$1,277,999

Insurance Contracts by Type As of June 30										
KERS										
Nonhazardous	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	452	441	411	460	441	433	428	434	433	395
KEHP Couple/Family	714	656	663	696	700	666	633	612	553	473
KEHP Single	9,251	8,876	8,627	8,638	8,304	7,942	7,415	7,141	6,693	6,334
Medicare without Prescription	1,303	1,286	1,229	1,179	1,141	1,089	1,026	989	957	939
Medicare with Prescription	18,577	19,447	20,215	21,117	21,713	22,271	22,648	22,903	22,976	22,947
Hazardous	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	110	97	88	96	103	112	104	116	118	108
KEHP Couple/Family	448	439	432	478	493	491	491	477	470	462
KEHP Single	656	663	667	686	699	677	667	686	653	621
Medicare without Prescription	62	66	72	73	83	82	82	84	72	66
Medicare with Prescription	1,177	1,302	1,401	1,495	1,584	1,662	1,693	1,746	1,796	1,843
SPRS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	81	77	79	74	77	85	89	90	92	79
KEHP Couple/Family	441	447	420	426	454	459	448	454	434	415
KEHP Single	265	246	251	253	224	226	221	217	230	239
Medicare without Prescription	16	18	17	21	16	16	13	14	17	16
Medicare with Prescription	777	850	897	941	975	998	1003	1,016	1,022	1,019
KRS Total	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
KEHP Parent Plus	643	615	578	630	621	630	621	640	643	582
KEHP Couple/Family	1,603	1,542	1,515	1,600	1,647	1,616	1,572	1,543	1,457	1,350
KEHP Single	10,172	9,785	9,545	9,577	9,227	8,845	8,303	8,044	7,576	7,194
Medicare without Prescription	1,381	1,370	1,318	1,273	1,240	1,187	1,121	1,087	1,046	1,021
Medicare with Prescription	20,531	21,599	22,513	23,553	24,272	24,931	25,344	25,665	25,794	25,809

**Acronym Glossary for Kentucky Retirement Systems**

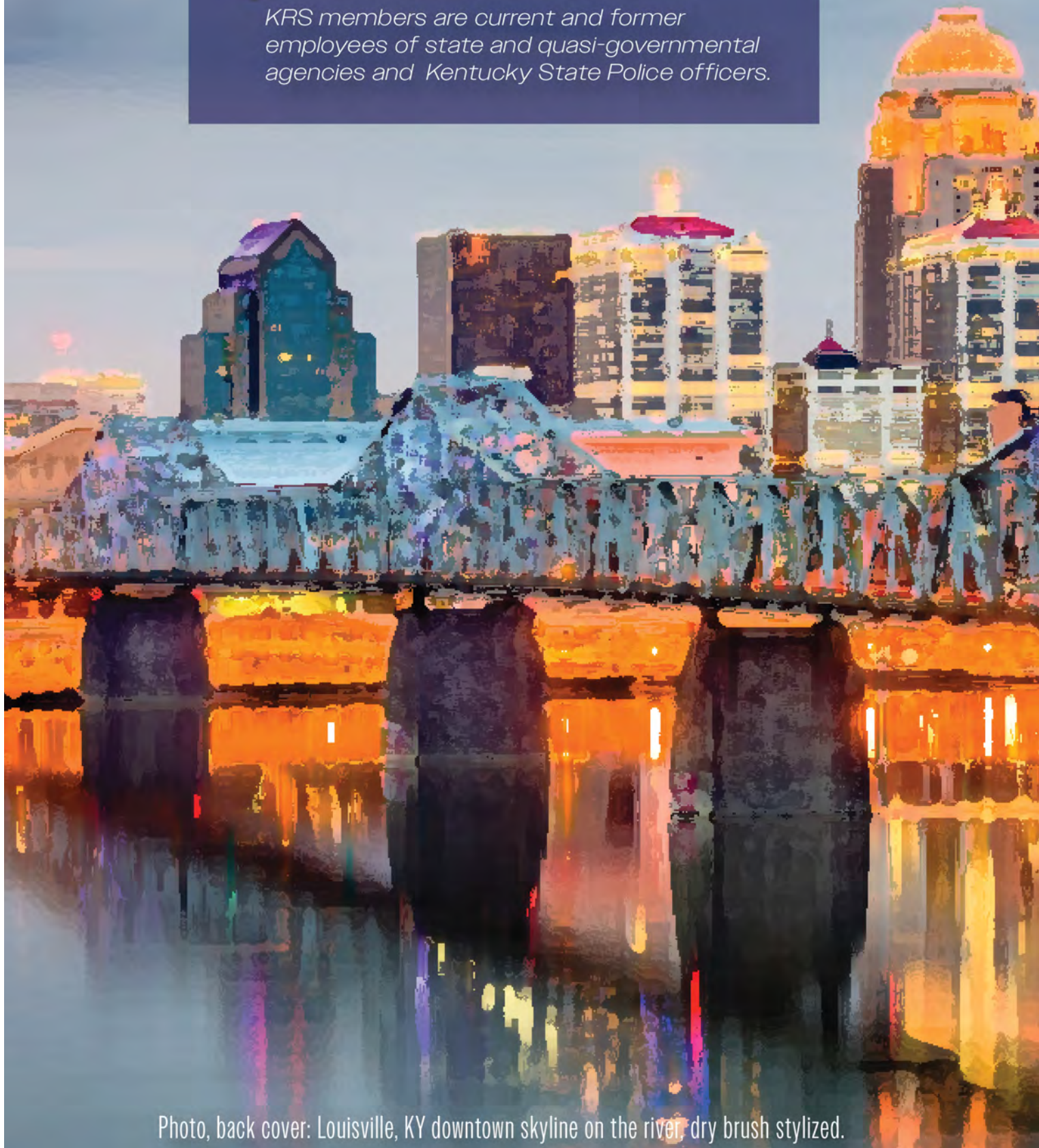
As of December 5, 2024

<b>Phrase</b>	<b>Acronym</b>
Actuarially Determined Contribution	ADC
Annual Required Contribution	ARC
Annual Comprehensive Financial Report	ACFR
Board of Trustees	Board
Collateralized Mortgage Obligations	CMO
Commonwealth of Kentucky	Commonwealth
Consumer Price Index	CPI
Department of Employee Insurance	DEI
Emerging Market Debt	EMD
Executive Order	EO
Exchange Traded Funds	ETFs
Fiscal Year	FY
Generally Accepted Accounting Principles	GAAP
Governmental Accounting Standards Board	GASB
Gabriel, Roeder, Smith & Co.	GRS
House Bill	HB
Investment Management Agreement	IMA
Investment Policy Statement	IPS
Internal Revenue Service	IRS
Information Technology	IT
Kentucky Administrative Regulations	KAR
Kentucky Employees' Health Plan	KEHP
Kentucky Public Pensions Authority	KPPA
Kohlberg, Kravis, Roberts	KKR
Kentucky Retirement Systems	KRS
Net Asset Value	NAV
Net OPEB Liability	NOL
Net Pension Liability	NPL
Not Rated	NR
Other post-employment benefits	OPEB
Pacific Alternative Asset Management Company	PAAMCO
Perimeter Park West Incorporated	PPW
Qualified Domestic Relations Order	QDRO
Required Supplementary Information	RSI
Senate Bill	SB
Senate Resolution	SR
Strategic Technology Advancements for the Retirement of Tomorrow	START
Short Term Investment Funds	STIFs
Total Pension Liability	TPL
Teachers' Retirement System	TRS
Unfunded Actuarial Accrued Liability	UAAL
Unfunded Accrued Liability	UAL
Unrelated Business Income	UBI



KENTUCKY RETIREMENT SYSTEMS  
1260 LOUISVILLE ROAD, FRANKFORT, KY 40601

*KRS members are current and former employees of state and quasi-governmental agencies and Kentucky State Police officers.*



Photo, back cover: Louisville, KY downtown skyline on the river, dry brush stylized.



## KENTUCKY PUBLIC PENSIONS AUTHORITY

Ryan Barrow, Executive Director

1260 Louisville Road • Frankfort, Kentucky 40601  
kyret.ky.gov • Phone: 502-696-8800 • Fax: 502-696-8822



December 5, 2024

Government Finance Officers Association  
203 North LaSalle Street, Suite 2700  
Chicago, IL 60601-1210

RE: Certificate of Achievement for Excellence in Financial Reporting  
Report #COA-2023-00415

Pursuant to the instructions included in the report referenced above, responses to the comments and suggestions for improvement of Kentucky Public Pensions Authority's (KPPA) Annual Comprehensive Financial Report (ACFR) for the Fiscal Year Ended June 30, 2023, follow:

***Comment 101: Cover, table of contents, and formatting***

***Information should be more specific than "team members". The title page should indicate the individual or department responsible for preparing the annual comprehensive financial report.***

Management concurs with the recommendation. For 2024 the KPPA has issued two separate ACFRs for the systems we administer, and we have indicated on the cover page that the Division of Accounting is responsible for preparing the annual comprehensive financial report.

***Comments 102: Introductory section***

***Consider incorporating the "management responsibility letter" in the letter of transmittal, since topics like management responsibility, internal control, and references to the independent auditor's report are all important elements of a letter of transmittal.***

***It is recommended that the letter of transmittal acknowledge that management is responsible for the contents of the annual comprehensive financial report.***

Management concurs with the recommendation. For the 2024 ACFRs, the content of the management responsibility letter is included in the letter of transmittal.

Also, the letter of transmittal acknowledges that management is responsible for the contents of the annual comprehensive financial report.

***It is recommended that the letter of transmittal specifically direct readers to Management's Discussion and Analysis.***

Management concurs with the recommendation. For the 2024 ACFRs, the letter of transmittal specifically directs the readers to Management's Discussion and Analysis.

***The schedule of fees and commissions is presented on pages 141 -142 rather than pages 143-144.***

***The organization chart(or other discussion of the administrative organization) should inform readers of the specific location within the investment section where information can be found regarding investment professionals who provide services to the postemployment benefit system (i.e., the Schedule of Fees and Commissions).***

Management concurs with the recommendation. For the 2024 ACFRs, the page numbers for the schedule of fees and commissions have been corrected.

***Comment 116 Investment section***

***The Core Fixed Income table indicates that the five-year return of the performance benchmark is 77.00% , which appears incorrect. Please clarify.***

Management concurs with the statement. The Core Fixed Income table's five-year performance benchmark of 77.00% was a typo. It should have been 0.77%. The typo has been corrected on the KPPA ACFR on the KPPA website.

***Comment 117 Actuarial section***

***Expressly state that the assumptions and methods used for "funding purposes" meet the parameters set by Actuarial Standards of Practice.***

***The actuary's certification letter should expressly state that the assumptions and methods used for funding purposes meet the***



*parameters set by Actuarial Standards of Practice. If they do not, a description of how they depart from those parameters should be included.*

Management concurs with the recommendation. For the 2024 ACFRs, the actuary's certification letter expressly states that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice.

Should you have any questions regarding our responses, or our ACFRs for FYE 2024, please do not hesitate to telephone me directly at (502) 696-8733.

Sincerely,



Michael B. Lamb, CPA  
Chief Financial Officer

Enclosure

cc: Ryan P. Barrow  
Executive Director

Connie A. Davis, CIA, CGAP, CRMA  
Director of Accounting

Rebecca H. Adkins  
Deputy Executive Director

/ACFR Submission Letter - 2024



## KENTUCKY PUBLIC PENSIONS AUTHORITY

Ryan Barrow, Executive Director

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### MEMORANDUM

TO: Ryan Barrow  
Executive Director

FROM: Dominique McKinley  
Division Director, Enterprise & Technology Services

DATE: November 15, 2024

SUBJECT: Information Security Assessment Summaries

Since 2006, KPPA has contracted with a third party to perform an annual assessment of the security of the KPPA information infrastructure. In June of 2024, Crowe performed an information security assessment that included the following activities:

- **External Penetration Assessment:** The objective of the External Penetration Assessment was to assess the ability of the KPPA network to resist attacks from external threats. Crowe identified KPPA systems and services that were accessible on the KPPA external network. Crowe then attempted to identify and verify vulnerabilities that could allow an attacker to gain elevated access to the KPPA network or to gain access to sensitive information. Crowe also assessed the security awareness of KPPA employees through surreptitious attempts to persuade employees to divulge information and execute malicious programs.
- **Internal Penetration Assessment:** The objective of the Internal Penetration Assessment was to assess the ability of the KPPA network to resist attacks from internal threats. Crowe identified KPPA systems and services that were accessible on the KPPA internal network. Crowe then attempted to identify and verify vulnerabilities that could allow an attacker to gain elevated access to the KPPA network or to gain access to sensitive information. Crowe also assessed the security awareness of KPPA employees through surreptitious attempts to persuade employees to gain access to the internal network and employee workstations.
- **Microsoft 365 Security Assessment:** The overall objective of the assessment was to assess the ability of KPPA's Office 365 configuration to resist attacks from the perspective of an external attacker as well as internal malicious user role or accidental exposure.

## Significant Findings

Finding Criticality	Information Security Assessment
Low Risk	8
Moderate Risk	9
High Risk	1
Total Findings	<b>19</b>

*Note: One additional finding that was a “Best Practice”*

**High Risk** – Requires immediate remedy and, if left uncorrected, exposes KPPA to significant or immediate risk of loss, asset misappropriation, data compromise or interruption, fines and penalties, or increased regulatory scrutiny.

**Moderate Risk** – Requires timely remedy and, if left uncorrected, may expose KPPA to risk of loss or misappropriation of company assets, compromise of data, fines and penalties, or increased regulatory scrutiny. These issues should be resolved in a timely manner, but after any high priority issues.

**Low Risk** – Should be addressed as time and resources permit. While it is not considered to represent significant or immediate risk, repeated oversights without corrective action or compensating controls could lead to increased exposure or scrutiny.

**Best Practice** – Represents operational efficiencies or improvements for consideration by management based on industry best practices and Crowe’s experiences.

## Additional Recommendations

The annual third-party information security audit is a critical measurement of how well KPPA is protecting our resources and member data. In addition to the findings from the assessments, I recommend the following:

### Third Party Infrastructure Assessment

- A third party information security audit should once again be approved and conducted to ensure remediation efforts were successful and to identify any new risks and vulnerabilities. The assessment should be conducted in 2025.

### Assessment Remediation

- The Division of Enterprise & Technology Services should continue to ensure that issues identified in the Crowe assessment report, along with issues identified in previous assessment reports, are remediated and that controls remain in place when system changes occur. All recommendations should be implemented or in the case of business needs that make implementation not feasible, the risk of not implementing should be addressed through the formal security exemption process.

Personnel Related

- KPPA needs to proactively continue to make security-focused training available to all business and technical employees, as well as targeted security awareness materials related to the mission and operations of KPPA. This training will meet regulatory requirements and help ensure that our staff members protect member data and resources.

cc: John Chilton, KRS Chief Executive Officer  
Ed Owens, CERS Chief Executive Officer  
Rebecca H. Adkins, Deputy Executive Director  
Erin Surratt, Executive Director, Office of Benefits  
Mike Lamb, Chief Financial Officer, Office of Operations  
Steve Willer, Executive Director, Office of Investments  
Michael Board, General Counsel, Office of Legal Services  
Lori Casey, Division Director, Human Resources  
Connie Davis, Division Director, Accounting  
Kristen Coffey, Chief Auditor

<b>KPPA ADMINISTRATIVE BUDGET FY 2024-2025</b> <b>BUDGET-TO-ACTUAL SUMMARY ANALYSIS</b> FOR THE THREE MONTHS ENDING SEPTEMBER 30, 2024, WITH COMPARATIVE TOTALS FOR THE THREE MONTHS ENDING SEPTEMBER 30, 2023						
CATEGORY	BUDGETED	FY 2025 EXPENSE	REMAINING	PERCENT REMAINING	FY 2024 EXPENSE	PERCENT DIFFERENCE
PERSONNEL	\$36,798,000	\$8,849,836	\$27,948,164	75.95%	\$8,475,218	4.42%
LEGAL CONTRACTS	2,030,000	294,608	1,735,392	85.49%	169,555	73.75%
AUDITING	300,000	40,251	259,749	86.58%	-	100.00%
ACTUARIAL SERVICES	525,000	-	525,000	100.00%	-	0.00%
MEDICAL REVIEWERS	1,800,000	258,085	1,541,915	85.66%	339,790	(24.05)%
OTHER PERSONNEL	510,000	67,440	442,560	86.78%	83,044	(18.79)%
<b>PERSONNEL TOTAL</b>	<b>\$41,963,000</b>	<b>\$9,510,219</b>	<b>\$32,452,781</b>	<b>77.34%</b>	<b>\$9,067,608</b>	<b>4.88%</b>
RENTALS - BUILDING & EQUIPMENT	1,175,000	246,410	928,590	79.03%	263,349	(6.43)%
INFORMATION TECHNOLOGY	4,230,000	851,803	3,378,197	79.86%	624,533	36.39%
OTHER OPERATIONAL	1,397,500	201,536	1,195,964	85.58%	215,067	(6.29)%
<b>OPERATIONAL TOTAL</b>	<b>\$6,802,500</b>	<b>\$1,299,749</b>	<b>\$5,502,751</b>	<b>80.89%</b>	<b>\$1,102,949</b>	<b>17.84%</b>
RESERVE	216,000	-	216,000	100.00%	-	0.00%
<b>ADMINISTRATIVE BUDGETED AMOUNT</b>	<b>\$48,981,500</b>	<b>\$10,809,968</b>	<b>\$38,171,532</b>	<b>77.93%</b>	<b>\$10,170,557</b>	<b>6.29%</b>

<b>Administrative Budget Summary</b> <b>Notes</b>	
	<p>KPPA has spent \$8.9 million in the 1st Quarter, which is 24.05% of the entire budget, and 4.42% higher than last years 1Q.</p>
	<p>One item that is close to its annual budget is the workers comp line item: This is budgeted at \$15k and we have been billed our annual premium of \$12.5k (likely leaving us \$2.5K under budget for the year).</p>
<b>PERSONNEL (Staffing):</b>	<p>KPPA has spent \$295k or 15% of the annual budget, prior years 1Q was \$170k (or 14% of the budget at that time). I do want to note that we have spent 39% of the Ice Miller budget and 35% of the JBB budget in Q1. Furthermore, we have requested an increase for the current Ice Miller contract to accommodate ongoing litigation.</p>
<b>LEGAL CONTRACTS:</b>	<p>All other personnel categories were under budget for the Quarter, bringing the total personnel category to \$9.5M or only 23% of the total budget. This was 4.88% or \$442k higher than the prior year.</p>
<b>OTHER PERSONNEL CATEGORIES:</b>	<p>KPPA spent \$1.3M in the operations category leaving 81% of the budget for the next three quarters.</p>
<b>OPERATIONAL TOTAL:</b>	<p>The total administrative expenses were \$10.8M for the Quarter, which was 6.29% higher than the prior year Q1, and we have 77.93% (or \$38M) remaining of the total \$49.9M budget.</p>
<b>OVERALL:</b>	

KPPA ADMINISTRATIVE BUDGET FY 2024-2025						
BUDGET-TO-ACTUAL ANALYSIS						
FOR THE THREE MONTHS ENDING SEPTEMBER 30, 2024, WITH COMPARATIVE TOTALS FOR THE THREE MONTHS ENDING SEPTEMBER 30, 2023						
Account Name	Budgeted	FY 2025 Expense	Remaining	Percent Remaining	FY 2024 Expense	Percent Difference
<b>PERSONNEL</b>						
<b>Staff</b>						
Salaries/Wages	\$21,138,000	\$5,117,359	\$16,020,641	75.79%	\$4,444,515	15.14%
Wages (Overtime)	310,000	49,207	260,793	84.13%	62,121	(20.79)%
Emp Paid FICA	1,641,000	368,985	1,331,117	81.12%	322,894	14.27%
Emp Paid Retirement	10,511,000	2,542,284	8,301,398	78.98%	2,955,059	(13.97)%
Emp Paid Health Ins	2,875,000	754,060	1,729,156	60.14%	635,718	18.62%
Emp Paid Sick Leave	250,000	-	250,000	100.00%	40,221	(100.00)%
Adoption Assistance Benefit	10,000	-	10,000	100.00%	-	0.00%
Escrow for Admin Fees	-	-	-	(100.00)%	-	0.00%
Workers Compensation	15,000	12,485	2,515	16.76%	11,116	12.32%
Unemployment	10,000	2,007	7,993	79.93%	-	100.00%
Emp Paid Life Ins	3,000	772	2,228	74.27%	744	3.76%
Employee Training	25,000	2,676	22,324	89.30%	2,830	(5.44)%
Tuition Assistance	10,000	-	10,000	100.00%	-	0.00%
Bonds	-	-	-	0.00%	-	0.00%
<b>Staff Subtotal</b>	<b>36,798,000</b>	<b>8,849,836</b>	<b>27,948,164</b>	<b>74.95%</b>	<b>8,475,218</b>	<b>4.42%</b>
<b>LEGAL &amp; AUDITING SERVICES</b>						
Legal Hearing Officers	270,000	38,569	231,431	85.72%	48,450	(20.39)%
Legal (Stoll, Keenon)	250,000	-	250,000	100.00%	1,210	(100.00)%
Frost Brown	1,000,000	88,932	911,068	91.11%	26,868	231.00%
Reinhart	50,000	-	50,000	100.00%	-	0.00%
Ice Miller	300,000	116,000	184,000	61.33%	84,540	37.21%
Johnson, Bowman, Branco LLC	100,000	34,942	65,058	65.06%	8,488	311.66%
Dentons Bingham & Greenebaum	50,000	-	50,000	100.00%	-	0.00%
Legal Expense	10,000	16,166	(6,166)	(61.66)%	-	100.00%
Auditing	300,000	40,251	259,749	86.58%	-	100.00%
<b>Total Legal &amp; Auditing Services</b>	<b>2,330,000</b>	<b>334,859</b>	<b>1,995,141</b>	<b>85.63%</b>	<b>169,555</b>	<b>97.49%</b>
<b>CONSULTING SERVICES</b>						
Medical Reviewers	1,800,000	258,085	1,541,915	85.66%	339,790	(24.05)%
Escrow for Actuary Fees	-	-	-	0.00%	-	0.00%
<b>Total Consulting Services</b>	<b>1,800,000</b>	<b>258,085</b>	<b>1,541,915</b>	<b>85.66%</b>	<b>339,790</b>	<b>(24.05)%</b>
<b>CONTRACTUAL SERVICES</b>						
Miscellaneous Contracts	425,000	51,533	373,467	87.87%	73,888	(30.26)%
Human Resources Consulting	10,000	-	10,000	100.00%	-	0.00%
Actuarial Services	525,000	-	525,000	100.00%	-	0.00%
Facility Security Charges	75,000	15,907	59,093	78.79%	9,156	73.73%
<b>Contractual Subtotal</b>	<b>1,035,000</b>	<b>67,440</b>	<b>967,560</b>	<b>93.48%</b>	<b>83,044</b>	<b>(18.79)%</b>
<b>PERSONNEL SUBTOTAL</b>	<b>\$41,963,000</b>	<b>\$9,510,219</b>	<b>\$32,452,781</b>	<b>77.34%</b>	<b>\$9,067,608</b>	<b>4.88%</b>
<b>OPERATIONAL</b>						
Natural Gas	45,000	1,408	43,592	96.87%	1,566	(10.09)%
Electric	130,000	32,721	97,279	74.83%	31,232	4.77%
Rent-Non State Building	80,000	-	80,000	100.00%	-	0.00%
Building Rental - PPW	1,000,000	240,492	759,508	75.95%	240,493	(0.00)%
Copier Rental	90,000	4,431	85,569	95.08%	21,708	(79.59)%
Rental Carpool	5,000	1,487	3,513	70.26%	1,147	29.64%
Vehicle/Equip. Maint.	1,300	-	1,300	100.00%	-	0.00%

KPPA ADMINISTRATIVE BUDGET 2024-25 BUDGET-TO-ACTUAL ANALYSIS						
FOR THE THREE MONTHS ENDING SEPTEMBER 30, 2024, WITH COMPARATIVE TOTALS FOR THE THREE MONTHS ENDING SEPTEMBER 30, 2023						
Account Name	Budgeted	FY 2025 Expense	Remaining	Percent Remaining	FY 2024 Expense	Percent Difference
Postage	450,000	32,299	417,701	92.82%	77,249	(58.19)%
Freight	200	-	200	100.00%	-	0.00%
Printing (State)	15,000	50	14,950	99.67%	-	100.00%
Printing (non-state)	85,000	-	85,000	100.00%	-	0.00%
Insurance	7,500	12,692	(5,192)	(69.23)%	5,066	150.53%
Garbage Collection	7,000	1,646	5,354	76.48%	1,745	(5.67)%
Conference Expense	45,000	16,576	28,424	63.16%	8,180	102.64%
Conference Exp. Investment	2,000	-	2,000	100.00%	-	0.00%
Conference Exp. Audit	3,000	-	3,000	100.00%	-	0.00%
MARS Usage	50,000	14,678	35,322	70.64%	6,775	116.65%
COVID-19 Expenses	-	-	-	0.00%	-	0.00%
Office Supplies	90,000	9,275	80,725	89.69%	9,914	(6.45)%
Furniture & Office Equipment	30,000	85	29,915	99.72%	-	100.00%
Travel (In-State)	15,500	3,226	12,274	79.19%	5,250	(38.55)%
Travel (In-State) Investment	-	-	-	#DIV/0!	-	0.00%
Travel (In-State) Audit	1,000	-	1,000	100.00%	-	0.00%
Travel (Out of State)	77,000	20,673	56,327	73.15%	17,841	15.87%
Travel (Out of State) Investment	135,000	-	135,000	100.00%	9,286	(100.00)%
Travel (Out of State) Audit	3,000	-	3,000	100.00%	-	0.00%
Dues & Subscriptions	69,000	13,618	55,382	80.26%	13,757	(1.01)%
Dues & Subscriptions Invest	15,000	6,360	8,640	57.60%	4,470	42.28%
Dues & Subscriptions Audit	1,000	-	1,000	100.00%	-	0.00%
Miscellaneous	55,000	449	54,551	99.18%	15,075	(97.02)%
Miscellaneous Investment	-	-	-	0.00%	-	0.00%
Miscellaneous Audit	-	-	-	0.00%	-	0.00%
COT Charges	40,000	3,267	36,733	91.83%	3,049	7.15%
Telephone - Wireless	10,000	1,790	8,210	82.10%	2,151	(16.78)%
Telephone - Other	90,000	47,694	42,306	47.01%	19,154	149.00%
Telephone - Video Conference	15,000	973	14,027	93.51%	-	100.00%
Computer Equip./Software	4,120,000	833,858	3,286,142	79.76%	614,709	35.65%
Comp. Equip./Software Invest	-	-	-	0.00%	-	0.00%
Comp. Equip./Software Audit	20,000	-	20,000	100.00%	-	0.00%
<b>OPERATIONAL SUBTOTAL</b>	<b>\$6,802,500</b>	<b>\$1,299,749</b>	<b>\$5,502,751</b>	<b>80.89%</b>	<b>\$1,102,949</b>	<b>17.84%</b>
<b>SUB-TOTAL</b>	<b>\$48,765,500</b>	<b>\$10,809,968</b>	<b>\$37,955,532</b>	<b>77.83%</b>	<b>\$10,170,557</b>	<b>6.29%</b>
<b>Reserve</b>	<b>216,000</b>	<b>-</b>	<b>216,000</b>	<b>100.00%</b>	<b>-</b>	<b>0.00%</b>
<b>TOTAL</b>	<b>\$48,981,500</b>	<b>\$10,809,968</b>	<b>\$38,171,532</b>	<b>77.93%</b>	<b>\$10,170,557</b>	<b>6.29%</b>

Differences due to rounding

Plan	Budgeted	FY 2025 Expense	% of Total KPPA FY 2025 Expense
CERS Nonhazardous	\$28,899,085	\$6,377,881	59.00%
CERS Hazardous	2,527,445	557,794	5.16%
KERS Nonhazardous	15,436,030	3,406,653	31.514%
KERS Hazardous	1,771,661	390,997	3.617%
SPRS	347,279	76,643	0.709%
<b>TOTAL</b>	<b>\$48,981,500</b>	<b>\$10,809,968</b>	<b>100.00%</b>

**JP MORGAN CHASE CREDIT EARNINGS AND FEES**

**FOR THE FISCAL YEAR ENDING JUNE 30, 2025**

	Earnings	Fees	Net Earnings
July-24	\$-	\$(7,337)	\$(7,337)
August-24	-	(7,646)	\$(7,646)
September-24		(7,733)	\$(7,733)
October-24			\$-
November-24			\$-
December-24			\$-
January-25			\$-
February-25			\$-
March-25			\$-
April-25			\$-
May-25			\$-
June-25			\$-
<b>Total</b>	<b>\$-</b>	<b>\$(22,716)</b>	<b>\$(22,716)</b>

**JP MORGAN CHASE HARD INTEREST EARNED**

**FOR THE FISCAL YEAR ENDING JUNE 30, 2025**

	Clearing Account	CERS	KERS	SPRS	Total
July-24	\$25,823	\$15,119	\$7,930	\$348	\$49,220
August-24	27,262	20,476	10,633	1,081	\$59,451
September-24	34,046	16,441	8,353	262	\$59,101
October-24					\$-
November-24					\$-
December-24					\$-
January-25					\$-
February-25					\$-
March-25					\$-
April-25					\$-
May-25					\$-
June-25					\$-
<b>Total</b>	<b>\$87,131</b>	<b>\$52,035</b>	<b>\$26,916</b>	<b>\$1,690</b>	<b>\$167,773</b>





## KENTUCKY PUBLIC PENSIONS AUTHORITY

Ryan Barrow, Executive Director

1260 Louisville Road • Frankfort, Kentucky 40601  
kyret.ky.gov • Phone: 502-696-8800 • Fax: 502-696-8822



To: Kentucky Public Pensions Authority

From: Steve Willer, CIO  
Office of Investments

Date: December 5, 2024

Subject: Summary of Investment Committee Meetings

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The County Employees Retirement System Investment Committee held Special Called meetings on October 22, 2024 and November 18 2024 and held a regularly scheduled meeting on November 26, 2024.

**The following actions were taken by the Investment Committee and were forwarded to the County Employees Retirement System Board of Trustees for ratification.**

Unanimously approved the proposed Investment Policy Statement, with five minor modifications. Those modifications were: 1) Introduction under Purpose. Should add the word “administratively” manages the assets; 2) Consistent Terminology. Ensure the consistent use of the terms “Funds” versus “Plans” throughout the IPS; 3) Contract Signatories. Change from CEO to Board Chair; 4) CERS Counsel Review. Include language indicating IPS must be reviewed by CERS Counsel before ratification; and 5) Definition of Risk. In Section II, C vi, specify a definition of risk.

**The following action was taken by the Investment Committee and notice was forwarded to the County Employees Retirement System Board of Trustees.**

Unanimously approved Staff and Wilshire’s recommendation to retain 100% of CERS’s indirect interest in Kraken Resources LLC held in the Kayne Anderson Energy Fund VII through an investment in KEPE Continuation Fund I LP.

The Kentucky Retirement Systems Investment Committee held a Special Called meeting on October 22, 2024 and held a regularly scheduled meeting on November 21, 2024.

**The following action was taken by the Investment Committee and was forwarded to the Kentucky Retirement Systems Board of Trustees for ratification.**

Unanimously approved Staff and Wilshire’s recommendation to retain 100% of KERS and SPRS’s indirect interest in Kraken Resources LLC held in the Kayne Anderson Energy Fund VII through an investment in KEPE Continuation Fund I LP.

Investment Staff and Wilshire presented material\* and discussed the following items during the Investment Committee meetings.

- a. *Review of Economic Conditions, Market Activity, Outlooks*
- b. *Absolute and Relative Performance and Asset Allocations for the Pension and Insurance Portfolios for the Quarter ending September 30, 2024*

**Pension Composite 5.03%** vs Blended Pension Composite Benchmark 4.67%

**Insurance Composite 4.94%** vs Blended Insurance Composite Benchmark 4.67%

**KERS Pension 5.23%**

**SPRS Pension 5.29%**

**Benchmark 4.45%**

**KERSH Pension 5.19%**

**KERS Insurance 5.42%**

**KERSH Insurance 4.75%**

**SPRS Insurance 4.81%**

**Benchmark 4.46%**

**CERS Pension 4.89%**

**CERSH Pension 4.92%**

**CERS Insurance 4.82%**

**CERSH Insurance 4.70%**

**Benchmark 4.77%**

**Twelve Months Ending September 30, 2024:**

**Pension Composite 18.27%** vs Blended Pension Composite Benchmark 19.31%

**Insurance Composite 18.71%** vs Blended Insurance Composite Benchmark 19.84%

- c. Performance Attribution - Relative outperformance in the Real Return and Real Estate portfolios and the overweights to Public Equities were the largest contributors to outperformance during the Quarter while relative underperformance of the Private Equity portfolio compared to its stated benchmark was identified as the main detractor. The Real Return portfolio produced a return of 6.70% outpacing its benchmark by 573 basis points while the Real Estate portfolio's 1.71% return outperformed the -0.66% return of its benchmark. Over the LTMs the Real Return portfolio has outperformed its benchmark by almost 11% which has contributed over 100 basis points to overall Fund outperformance while the Private Equity portfolio has underperformed its benchmark by almost 23% which contributed 175-225 basis points of underperformance relative to the benchmark at the Fund level.
- d. Peer Universe – All portfolios have produced top quartile or top decile risk adjusted performance over 3- and 5-year time periods.

- e. Internal Portfolios - An update was provided on the performance of the internally managed passive and proxy portfolios. The portfolios performed in line with expectations and consistent with their mandates.
- f. Asset Allocations – Staff provided an update on the rebalancing activity and noted the Asset Class Allocations that were outside of their respective IPS allocation ranges. As of the end of the Quarter, Staff noted that of the 70 discrete Asset Class ranges across Funds only two were identified as outside of their respective allowable ranges, both by approximately 0.40%.
- g. Compliance – Compliance violations as of September 30, 2024, were noted in their respective reports.
- h. Investment Budget Update – For the first quarter of the Fiscal Year, expenditures totaled only 16% of the amount budgeted or \$2.0MM. While Consulting and Contractual services were in line with the amounts budgeted, expenses for Legal and Auditing Services were well below budget with only 7% of the amount budgeted spent in the first Quarter. The total of base Investment Advisory fees have only increased 5% since FY2021 while total assets in the Trusts have increased by 50% since FY2021. Staff highlighted that Core Fixed Income Advisory fees were \$520k less than the same period of Fiscal 2023 despite the 50% increase in the market value of the asset class. The reduction in fees was driven by moving management of a portion of the asset allocation in-house with expected full year savings of \$1.5MM to \$2.00MM.

\*All material presented is available in Board Books and was reviewed at the Investment Committee meetings.



## KENTUCKY PUBLIC PENSIONS AUTHORITY

Ryan Barrow, Executive Director

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**To:** KPPA/CERS/KRS Board  
**From:** Ryan Barrow  
**Date:** December 2, 2024  
**Subject:** KPPA Update

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- I. **LEGISLATION:** The KPPA is well positioned to address our two key legislative priorities: reorganization and pension spiking. As a reminder, legislative updates this coming session starting January 7, 2025 will be provided weekly, with more frequent updates when key bills advance out of committee or receive a floor vote.
- II. **LOUISVILLE OFFICE:** The final floor plan/design have been signed off by KPPA. The Department for Facilities and Support Services in the Finance and Administration Cabinet will proceed with selection.
- III. **PUBLIC PENSION OVERSIGHT BOARD (PPOB):** On November 19th, Rebecca Adkins and I presented at the PPOB, providing an overview of the valuations for all systems.
- IV. **STRATEGIC PLANNING TEAMS:**
  1. QA Account Audit Team - Areas for improvement in the account audit process are being implemented in the February build.
  2. Survey Team - Recommendations are under review for prioritization.
  3. Member Presentations - Holding regular meetings and researching best practices.
  4. Artificial Intelligence (AI) – Currently being developed, with a focus on using AI to transcribe phone calls.
- V. **STAFFING:** Current full-time staffing stands at 258, with six positions posted under the new Team Kentucky Internship Program (KTIP) and interns will begin in the summer of 2025. Additionally, a new counselor training class is set to start in January, with six new counselors undergoing three months of training before transitioning to their respective areas.
- VI. **COMMUNICATION:** Effective communication is essential to our success, and I want to thank everyone at KPPA and the Trustees who have shared their thoughts, concerns, and suggestions. Over the past few months, you may have noticed changes in the structure of board packets and meeting minutes. More importantly, we are testing an after-action

process to track follow-up times and ensure tasks are delegated to the appropriate person.

- VII. KENTUCKY EMPLOYEE CHARITABLE CAMPAIGN (KECC):** KPPA has surpassed our KECC goal of 20% participation and \$20,000 in donations, raising a total of \$26,006 to date, with 22% of staff participating through payroll deduction.