



**CERS**

County Employees Retirement System (CERS)  
A component unit and a pension trust fund of the Commonwealth of Kentucky.

# **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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## **INTRODUCTION**

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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.

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

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### **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.

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

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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 purple ink, appearing to read "Ryan Barrow".

Ryan Barrow  
KPPA Executive Director



A handwritten signature in purple 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).



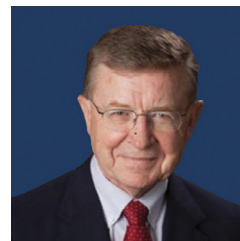
**Dr. Martin Milkman**

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

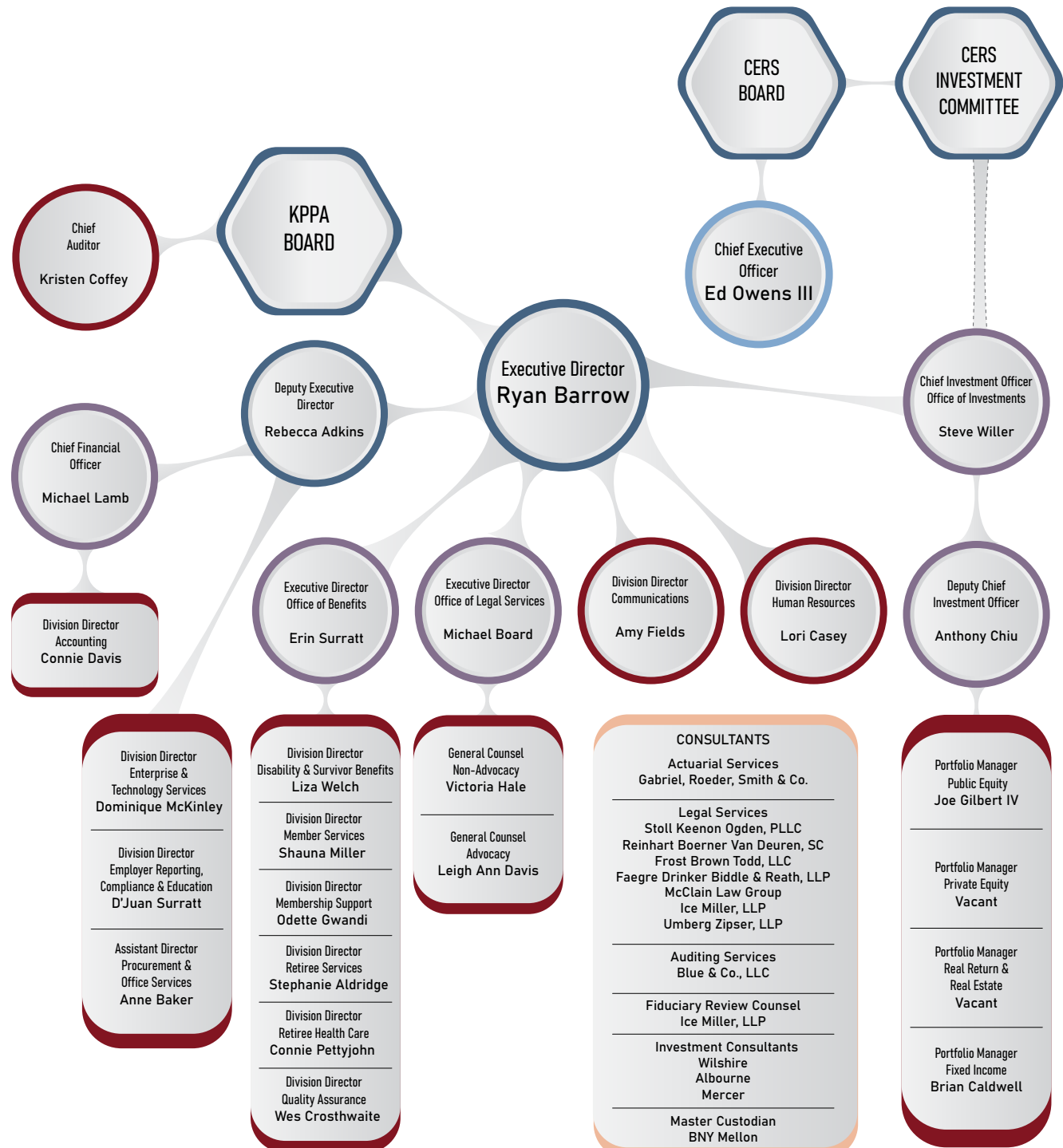
\*Trustee continues to serve until the Governor makes an appointment to fill the trustee position.



# 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.

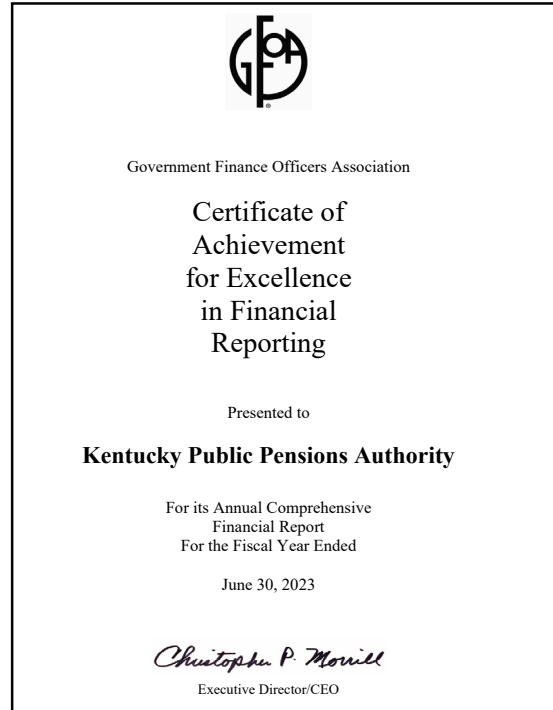


Refer to the Investments Section for additional information regarding Investment Advisors (pages 86-87) and Schedules of Fees and Expenses (pages 88-90).

# 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.*

# 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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Blue & Co., LLC / 250 West Main Street, Suite 2900 / Lexington, KY 40507  
main 859.253.1100 fax 859.253.1384 email blue@blueandco.com

## 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.

## REPORT OF INDEPENDENT AUDITORS (Continued)

### *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 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 17 through 21, and the defined benefit pension plan and other post-employment benefit plan supplemental schedules on pages 59 through 70, 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

## REPORT OF INDEPENDENT AUDITORS (Continued)

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 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 December 5, 2024, 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  
December 5, 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>				
	602	476	126	26.47%
<b>FIDUCIARY NET POSITION</b>	<b>\$18,473</b>	<b>\$16,740</b>	<b>\$1,733</b>	<b>10.35%</b>

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

Condensed Summary of Changes in Fiduciary Net Position For the fiscal year ended June 30				
	CERS TOTAL	CERS TOTAL		
	2024	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 sizable 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>											
<b>CERS Nonhazardous</b>	11.6%	10.2%	\$9,640	\$8,585	\$1,055	\$91	\$71	\$20	\$1,003	\$815	\$188
<b>CERS Hazardous</b>	11.7%	10.3%	3,367	2,939	428	31	24	7	356	282	74
<b>INSURANCE</b>											
<b>CERS Nonhazardous</b>	11.8%	10.3%	3,574	3,208	366	33	25	8	380	306	74
<b>CERS Hazardous</b>	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.

# 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.



# 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  
Frankford, KY 40601

# Basic Financial Statements

## Combining Statement of Fiduciary Net Position

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

	Pension		Insurance		CERS
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous	Total 2024
<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.

## Combining Statement of Changes In Fiduciary Net Position

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

	Pension		Insurance		CERS
	CERS	CERS	CERS	CERS	Total
	Nonhazardous	Hazardous	Nonhazardous	Hazardous	2024
<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 Additions	-	-	10,445	1,637	12,082
<b>Total Contributions &amp; Other Additions</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.*



## 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	CERS Nonhazardous	CERS Hazardous	CERS Total 2024
<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

### 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.

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

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:

<b>Dollar Contribution for Fiscal Year 2024 For Member participation date on or after July 1, 2003</b>	
	(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

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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.

## 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	CERS	CERS	CERS
		Percentage of Net Exposure	Hazardous Percentage of Net Exposure	Percentage of Net Exposure	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>Nonhazardous</b>	<b>Hazardous</b>	<b>Nonhazardous</b>	<b>Hazardous</b>
<b>As of June 30, 2024 (\$ in Thousands)</b>	<b>Fair Value</b>		<b>Fair Value</b>	
<b>Type</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.

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			
	Nonhazardous		Hazardous		Nonhazardous		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.

<b>Foreign Currency Risk - GASB 40</b>				
<b>As of June 30, 2024 (\$ in Thousands)</b>				
	<b>Pension</b>		<b>Insurance</b>	
	<b>Nonhazardous</b>	<b>Hazardous</b>	<b>Nonhazardous</b>	<b>Hazardous</b>
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	CERS Hazardous			Total
	Level			Fair Value	Level			Fair Value
	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.

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	CERS Hazardous			Total
	Level			Fair Value	Level			Fair Value
	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.*

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 and, generally, is 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.

Target Asset Allocation - CERS Pension and Insurance As of June 30, 2024		
Allocations apply to CERS Pension and Insurance Plans		
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
<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>	

*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)**

	CERS	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	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	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.*

**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

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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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**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.



**Schedule of Changes in Employers' TPL - CERS Nonhazardous  
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	\$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.

**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>(5)</sup>	111 <sup>(5)</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>	-	-	-	-	-	-	(7)	-	-	-
<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%
Covered Payroll <sup>(3)</sup>	\$775,638	\$714,837	\$666,346	\$572,484	\$559,551	\$553,541	\$562,853	\$526,559	\$526,334	\$483,641
<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	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 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 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 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 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.

Notes to Schedule of Employers' OPEB Contributions		
Item	CERS	CERS
	Nonhazardous	Hazardous
Determined by the Actuarial Valuation as of:	June 30, 2022	June 30, 2022
Actuarial Cost Method:	Entry Age Normal	Entry Age Normal
Asset Valuation Method:	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.
Amortization Method:	Level Percent of Pay	Level Percent of Pay
Amortization Period:	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.
Payroll Growth Rate:	2.00%	2.00%
Investment Return:	6.25%	6.25%
Inflation:	2.30%	2.30%
Salary Increase:	3.30% to 10.30%, varies by service.	3.55% to 19.05%, varies by service.
Mortality:	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.
Healthcare Trend Rates:		
Pre-65	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.
Post-65	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	CERS Hazardous
2024	11.59%	11.75%	11.75%	11.67%	11.67%
2023	10.25%	10.35%	10.32%	10.06%	10.06%
2022	(5.83)%	(6.02)%	(5.49)%	(4.95)%	(4.95)%
2021	25.72%	25.58%	24.81%	24.99%	24.99%
2020	0.84%	0.71%	0.36%	0.27%	0.27%
2019	5.72%	5.76%	5.73%	5.78%	5.78%
2018	8.82%	8.82%	9.22%	9.35%	9.35%
2017	13.80%	13.72%	13.67%	13.69%	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>



Blue & Co., LLC / 250 West Main Street, Suite 2900 / Lexington, KY 40507  
 main 859.253.1100 fax 859.253.1384 email blue@blueandco.com

**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 December 5, 2024.

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,

**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)**

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 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  
December 5, 2024

## **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 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%.

## Pension Plan Growth

As of June 30 (in Whole \$)

	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%.

## Insurance Plan Growth

As of June 30 (in Whole \$)

	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.*

**Top 10 Public Equity Holdings  
As of June 30, 2024 (\$ in Thousands)**

**CERS Nonhazardous Pension**

Company	Shares	Fair Value
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>

**Top 10 Public Equity Holdings  
As of June 30, 2024 (\$ in Thousands)**

**CERS Nonhazardous Insurance**

Company	Shares	Fair Value
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>

**Top 10 Public Equity Holdings  
As of June 30, 2024 (\$ in Thousands)**

**CERS Hazardous Pension**

Company	Shares	Fair Value
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>

**Top 10 Public Equity Holdings  
As of June 30, 2024 (\$ in Thousands)**

**CERS Hazardous Insurance**

Company	Shares	Fair Value
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	
Pension	7/1/2013	Plan	Index	Plan	Index	Plan	Index	Plan	Index
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%
Insurance	7/1/2013								
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>								
<b>CERS Nonhazardous</b>		13.74%	10.81%	8.28%	3.92%	8.06%	4.76%	6.55%	N/A
<b>CERS Hazardous</b>		13.57%	10.81%	8.12%	3.92%	7.95%	4.76%	6.49%	N/A
<b>Insurance</b>	<b>7/1/2017</b>								
<b>CERS Nonhazardous</b>		13.79%	10.81%	8.16%	3.92%	7.94%	4.76%	6.45%	N/A
<b>CERS Hazardous</b>		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	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/2002</b>								
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%
<b>Insurance</b>	<b>7/1/2002</b>								
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	
		Plan	Index	Plan	Index	Plan	Index	Plan	Index
<b>Pension</b>	<b>7/1/1984</b>								
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%
<b>Insurance</b>	<b>5/1/2009</b>								
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 (NCREIF ODCE) 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.

Investment Managers & Assets Under Management by Fund and Asset Class					
As of June 30, 2024 (\$ in Thousands)					
Advisor/Asset Class	Pension		Insurance		CERS Total
	CERS Nonhazardous	CERS Hazardous	CERS Nonhazardous	CERS Hazardous	
<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

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>

## 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.*

## External Investment Expenses - Insurance Asset Class/Type Breakdown

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

CERS Nonhazardous	Public Equity	Private Equity	Fixed Income	Specialty Credit	Cash	Real Return	Real Estate	Total
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>

CERS Hazardous	Public Equity	Private Equity	Fixed Income	Specialty Credit	Cash	Real Return	Real Estate	Total
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)

Expense	CERS Nonhazardous		CERS Hazardous	
	Fees Paid	Share of Total	Fees Paid	Share of Total
<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>



## 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		Fair Value	% of Total FV
	% of Total		% of Total		% of Total		% of Total			
	Fair Value	FV	Fair Value	FV	Fair Value	FV	Fair Value	FV	Fair Value	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.**

A handwritten signature in blue ink that reads "Daniel J. White".

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

A handwritten signature in blue ink that reads "Janie Shaw".

Janie Shaw, ASA, EA, MAAA  
Consultant

A handwritten signature in blue 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 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.

**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.

## 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>	Members Participating after 1/1/2014 <sup>(3)</sup>
	Male	Female	Male	Female				
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 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 62 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).

<b>Table 4a: Life Expectancy for an Age 65 Retiree in Years</b>					
<b>Gender</b>	<b>Year of Retirement</b>				
	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Male	19.8	20.2	20.6	21.0	21.3
Female	22.4	22.7	23.1	23.4	23.7

<b>Table 4b: Sample Annual Rate of Mortality</b>								
<b>Age</b>	<b>Active Member Mortality</b>		<b>Active Member Mortality</b>		<b>Retired Member Mortality</b>		<b>Disabled Member Mortality</b>	
	<b>Nonhazardous</b>		<b>Hazardous</b>					
	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>
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%

**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%

**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.

# 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.

# 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 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
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

Valuation Date	Actuarial Liabilities			Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)				
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

Valuation Date	Actuarial Liabilities			Actuarial Value of Assets	% of Actuarial Liabilities Covered by Actuarial Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Portion)				
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 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.



## 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 Kentucky Revised Statute 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

## 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:	Includes earned service, purchased service, prior service, and sick leave service (if the member's employer participates in an approved sick leave program).
	CERS 2.00% if:	

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	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%	

**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*	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	Employer	Base Annual	Upside Sharing	
	Contributions	Contributions	Interest	Interest (FY 2024)	
<b>CERS Nonhazardous</b>	5.00%	4.00%	4.00%	6.75%	See www.kyret.ky.gov for most recent Actuarial Factors
<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 Nonhazardous Membership As of June 30**

Fiscal Year	Active	Inactive	Retired	Total
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**

Fiscal Year	Active	Inactive	Retired	Total
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**

Fiscal Year	Active	Inactive	Retired	Total
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>

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

Agency Classification	Number of Agencies	Covered Employees
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>

## 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>

## 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>

## 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.

## 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%

## 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

## 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
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
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



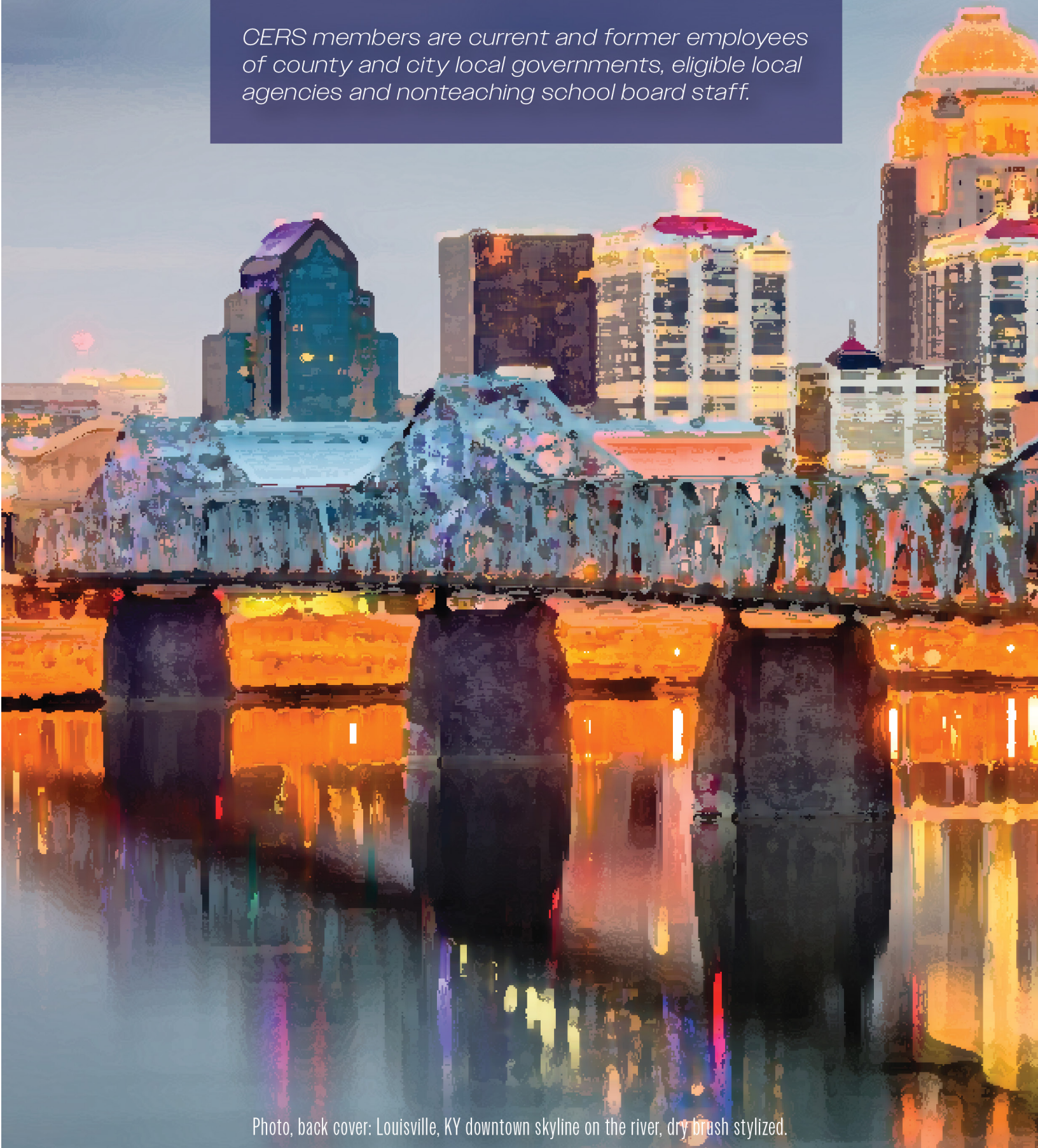
**Acronym Glossary for County Employees Retirement System  
As of December 5, 2024**

<b>Phrase</b>	<b>Acronym</b>
Actuarial Accrued Liability	AAL
Actuarially Determined Contribution	ADC
Annual Comprehensive Financial Report	ACFR
Board of Trustees	Board
Collateralized Mortgage Obligations	CMO
Commonwealth of Kentucky	Commonwealth
Consumer Price Index	CPI
Cost of Living Adjustment	COLA
County Employees Retirement System	CERS
Department of Employee Insurance	DEI
Emerging Market Debt	EMD
Entry Age Normal Cost Method	EANC
Exchange Traded Funds	ETFs
Fair Value	FV
Fiscal Year (Ended)	FY(E)
Generally Accepted Accounting Principles	GAAP
Geometric Average Net Investment Return	GANIR
Governmental Accounting Standards Board	GASB
Gabriel, Roeder, Smith & Co.	GRS
House Bill	HB
Investment Management Agreement	IMA
Investment Policy Statement	IPS
Information Technology	IT
Judicial Form Retirement System	JFRS
Kentucky Administrative Regulations	KAR
Kentucky Association of Counties	KACo
Kentucky Employees' Health Plan	KEHP
Kentucky Employees Retirement System	KERS
Kohlberg, Kravis, Roberts	KKR
Kentucky League of Cities	KLC
Kentucky Public Pensions Authority	KPPA
Kentucky Retirement Systems	KRS
Kentucky School Boards Association	KSBA
Management's Discussion and Analysis	MD&A
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
Qualified Domestic Relations Order	QDRO
Required Supplementary Information	RSI
Senate Bill	SB
Short Term Investment Funds	STIFs
State Police Retirement System	SPRS
Total Pension Liability	TPL
Teachers' Retirement System	TRS
Unfunded Actuarial Accrued Liability	UAAL
Unrelated Business Income	UBI
Withdrawn	WR



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.