



**County Employees Retirement System
Actuarial Committee – Regular Meeting
March 14, 2022 at 2:00 PM ET
Live Video Conference/Facebook Live**

AGENDA

- | | |
|---|---|
| 1. Call to Order | Michael Foster |
| 2. Opening Statement | Legal Services |
| 3. Roll Call | Sherry Rankin |
| 4. Public Comment | Sherry Rankin |
| 5. Approval of Minutes* -- November 8, 2021 | Michael Foster |
| 6. Economics Assumptions for Actuarial Valuation | Danny White, GRS
Janie Shaw, GRS |
| 7. Actuary RFP Process | Rebecca Adkins |
| 8. ADJOURN | Michael Foster |

****Committee Action May Be Taken***

**MINUTES OF MEETING
COUNTY EMPLOYEES RETIREMENT SYSTEM
SPECIAL CALLED ACTUARIAL COMMITTEE MEETING
NOVEMBER 8, 2021 AT 11:00 A.M.
VIA LIVE VIDEO TELECONFERENCE**

At the special called meeting of the Actuarial Committee of the County Employees Retirement System Board of Trustees held on November 8, 2021 the following members were present: Michael Foster – Chair, Dr. Merl Hackbart and Dr. Patricia Carver. Other Trustees present included Jerry Powell and Betty Pendergrass. Staff members present were Ed Owens, III, John Chilton, David Eager, Rebecca Adkins, Erin Surratt, Steven Herbert, Vicki Hale, Kristen Coffey, Chris Johnson, Shaun Case, Phillip Cook, Glenna Frasher, Ashley Gabbard and Sherry Rankin. Others present included Danny White and Janie Shaw with GRS; Chris Tessman, Craig Morton and David Lindberg with Wilshire; and Joseph Bowman with Johnson, Bowman and Branco.

Mr. Foster called the meeting to order.

Ms. Hale read the Legal Opening Statement.

Ms. Rankin took Roll Call. No public comment was submitted.

Mr. Foster introduced agenda item *Approval of Minutes from the May 14, 2021 Meeting*. A Motion was made by Dr. Hackbart and seconded by Dr. Carver to approve the minutes as presented. The motion passed unanimously.

Mr. Foster introduced agenda item *Draft Actuarial Valuation*. Mr. Danny White and Ms. Janie Shaw presented the 2021 Actuarial Valuation Results for the County Employees Retirement Systems. Mr. White announced the 2021 actuarial determined contribution rates as follows: CERS Non-Hazardous will be 26.79%, while CERS Hazardous will be 49.59%. Mr. White indicated that a more detailed analysis and discussion would be held at the next CERS Board Meeting.

Mr. Foster introduced agenda item *COLA Discussion*. Ms. Pendergrass gave a brief history on the Cost of Living Adjustments relating to State Government Employees. Ms. Pendergrass stated that

any COLA would have to come from the pensions due to the non-existence of a surplus. Therefore, based on the current funded ratios of the CERS systems and current Kentucky law, the CERS Board is limited on offering any recommendation as to a cost of living increase. Ms. Pendergrass thanked GRS for providing information regarding the impact of a COLA on the CERS systems and options for discussion.

Mr. Foster introduced agenda item *Cybersecurity Awareness Training*. Mr. Chris Johnson, Information Security Officer at Kentucky Public Pensions Authority provided a training session on Cybersecurity Awareness entitled: Social Engineering the Executive.

Dr. Hackbart made a motion and was seconded by Dr. Caver to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held on November 8, 2021, except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

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CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on November 8, 2021 were approved on March 14, 2022.

Chair of the Board of Trustees

I have reviewed the Minutes of the November 8, 2021 Board of Trustees Meeting for content, form, and legality.

Executive Director
Office of Legal Services



March 7, 2022

Board of Trustees
 County Employees Retirement System
 Perimeter Park West
 1260 Louisville Road
 Frankfort, KY 40601

Re: Economic Assumptions for Use in the Upcoming June 30, 2022 Actuarial Valuation

Dear Trustees of the Board:

Each year the actuarial committee reviews the principal economic assumptions (i.e. price inflation, investment return assumption, and payroll growth) for use in the actuarial valuation. Economic and demographic assumptions used in an actuarial valuation should be representative of the System's expected long-term experience. These assumptions are not intended to consistently model short-term (e.g. the next two to five years) experience, but are supposed to be representative of expected long-term trends. As a result, short-term experience may differ significantly from the long-term assumption used in an actuarial valuation.

The three primary economic assumptions used in an actuarial valuation include the price inflation, investment return, and payroll growth assumption. The following letter and exhibits provide our recommended assumptions to be adopted by the Board for use in the June 30, 2022 actuarial valuation and rationale for each recommendation.

Assumption	June 30, 2021 Valuation Adopted Assumption	June 30, 2022 Valuation Recommended Assumption
Price Inflation	2.30%	2.30%
Investment Return	6.25%	6.25%
Payroll Growth	2.00%	2.00%

Price Inflation Assumption

Benefits provided to members in CERS are not explicitly impacted by the actual change in price inflation. The current price inflation assumption is 2.30%. We reviewed several sources that provide various perspectives of forward-looking inflation expectations and recommend the continued use of a 2.30% inflation assumption in the 2022 actuarial valuation.

We recognized that actual inflation as measured by CPI has been much higher than the current 2.30% assumption during the last 12 months. Additionally, many professional forecasters and

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economists expect that inflation will continue to be elevated above historical levels for the next two to three years. However, but given the long-time horizon of an actuarial valuation, and the relative immateriality of this assumption in the actuarial valuation, we believe a 2.30% inflation assumption continues to be reasonable for this purpose. Please see Exhibit 1 for more information on the comparison of future inflation expectations.

Investment Return Assumption

The investment return assumption is perhaps the most important and most subjective assumption used in an actuarial valuation. It represents the expected long-term return on plan assets and is used to discount future expected benefit payments to the valuation date in order to determine the liabilities of the plan.

We believe the most appropriate approach in identifying a reasonable investment return assumption is to understand forward-looking expectations developed by professional investment consulting firms. To do this, we have analyzed CERS's investment policy with the capital market assumptions from five nationally recognized investment consultants, including Wilshire Advisors which is CERS's investment consultant. Some of these assumptions are based on a seven- to ten-year time horizon, while others are based on a longer 20- to 30-year time horizon. Since investment consultants update their assumptions on at least an annual basis, we also compared their expectations developed in 2022, to their prior year assumptions to better understand changes in their expectations. Attached is Exhibit 2 that provides this comparison for each investment consulting firm for 2021 and 2022.

It is our recommendation that the CERS Board adopt the continued use of a 6.25% investment return assumption for the valuation of the pension and insurance funds at June 30, 2022. Given the methodology used by the investment consultants to develop their expectations, it is possible their expectations for the shorter term revert higher as the economy enters an expected increasing interest rate setting.

Payroll Growth Assumption

The payroll growth assumption is only used in development of the amortization cost component of the contribution rate. When emerging covered payroll changes are consistent with the payroll growth assumption, the amortization cost will remain relatively constant as a percentage of payroll (assuming there are no other gains or losses). However, if the future change in covered payroll is consistently less than assumed, then the amortization cost will gradually increase as a percentage of covered payroll.

The current payroll growth assumption is 2.00% of pay for the Non-Hazardous and Hazardous funds (pension and insurance). Based on the ten-year historical experience of the change in membership and covered payroll that is shown in Exhibit 3, we believe that 2.00% payroll growth remains within



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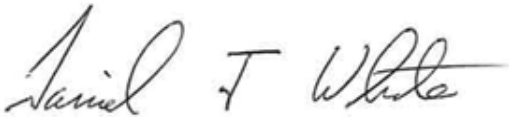
a reasonable range of appropriate assumptions and recommend the Board adopt a 2.00% payroll growth assumption for use in the June 30, 2021 actuarial valuation.

Closing Comments

This analysis was conducted in accordance with generally accepted actuarial principles and practices. We believe these recommended assumptions comply with Actuarial Standard of Practice No. 27, Selection of Economic Assumptions for Measuring Pension Obligations.

Both 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 contained herein. In addition, all of the undersigned are experienced in performing valuations for large public retirement systems.

Sincerely,



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



Janie Shaw, ASA, MAAA, EA
Consultant

Enclosure



Exhibit 1. Comparison of Price Inflation Assumption to Sources of Forward-Looking Expectations

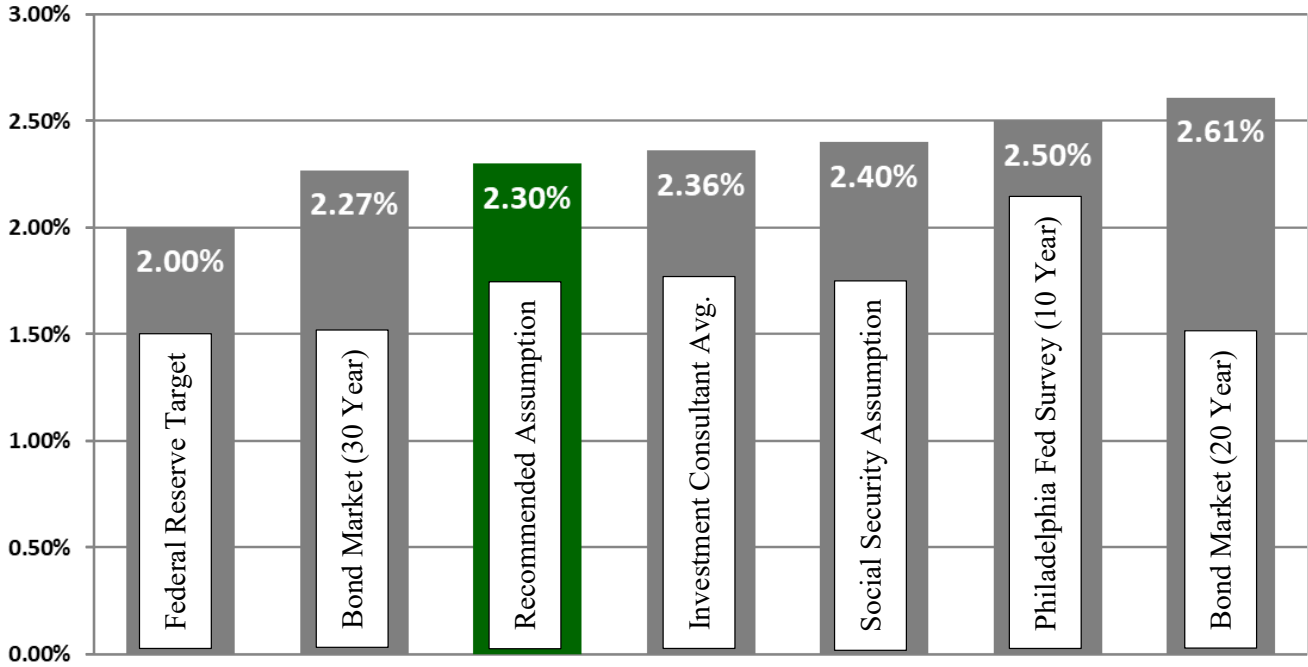


Exhibit 2. Review of Forward-Looking Capital Market Expectations Mapped CERS's Investment Policy

	Investment Consultant	50th Percentile Expected Return (Geometric)		Probability of Exceeding 6.25%	
		2022	2021	2022	2021
		(1)	(2)	(3)	(4)
7 to 10 Year Expectations	1	4.8%	5.3%	28%	35%
	2	4.9%	5.1%	33%	35%
	3	5.2%	5.3%	35%	37%
	4	5.3%	5.3%	35%	35%
	5	5.4%	5.3%	38%	36%
20 to 30 Year Expectations	1	6.2%	6.2%	50%	49%
	2	6.5%	6.4%	53%	52%
7-10 Year Expectation Avg:		5.1%	5.3%	34%	36%
20-30 Year Expectation Avg:		6.4%	6.3%	52%	51%

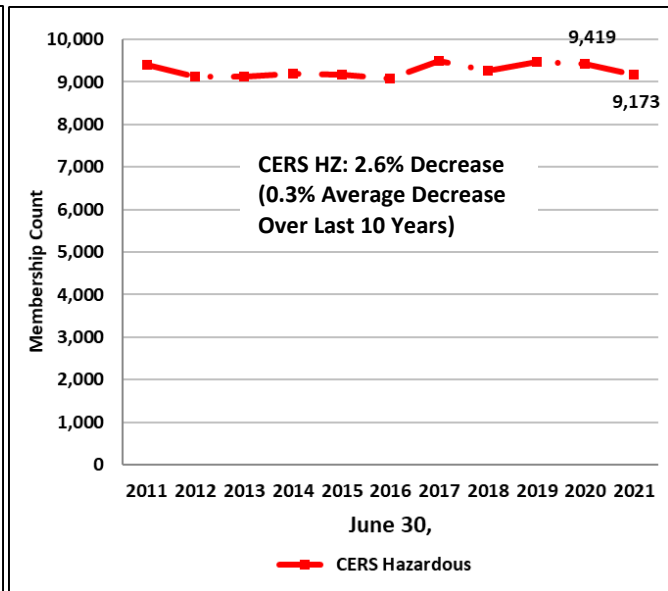
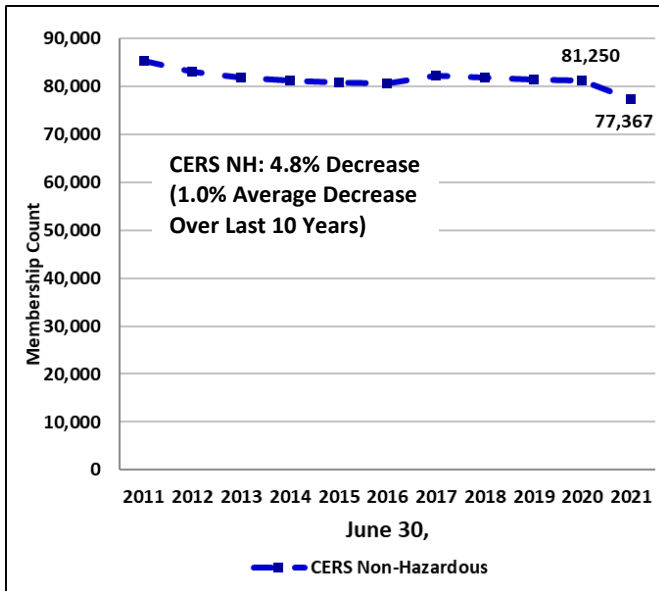
The primary purpose of performing this analysis using multiple investment consulting firms is to quantify the possible difference in forward looking return expectations within the professional investment community. Additionally, we have provided this analysis based on information from the following investment consulting firms:

- BNY Mellon
- J.P. Morgan
- Mercer
- NEPC
- Wilshire Associates

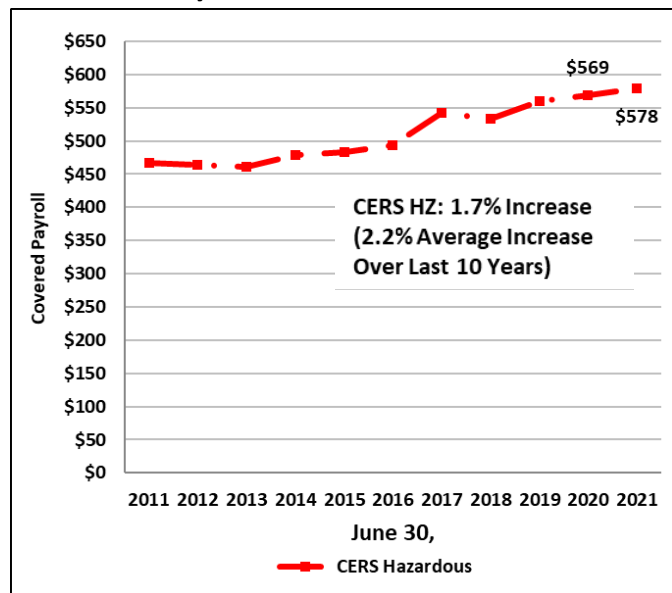
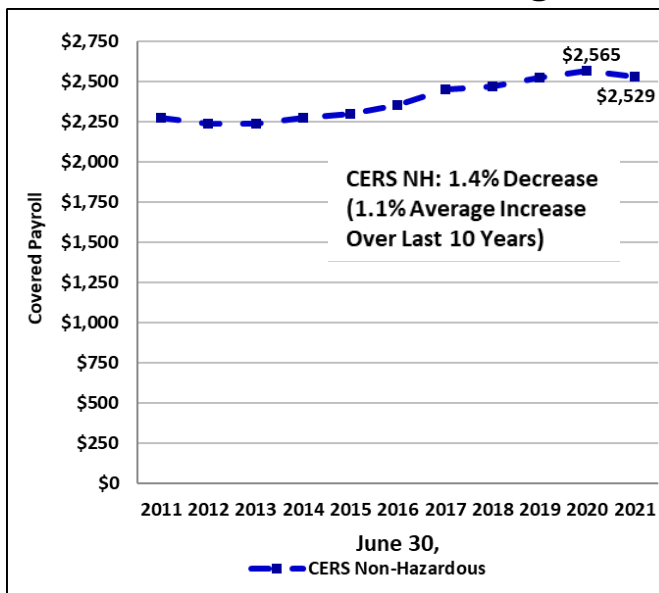


Exhibit 3. Review of Historical Change in Membership and Covered Payroll

Change in Active Membership



Change in Covered Payroll





MEMORANDUM

DATE: March 8, 2022

TO: Mike Foster, Chair
CERS Actuarial Committee

FROM: Betty Pendergrass, Chair, CERS Board of Trustees

RE: Historical Summary of Investment Earnings & Actuarial Discount Rate

Each year, the CERS Board of Trustees will evaluate key economic assumptions for the upcoming annual actuarial valuation. GRS has provided an excellent summary of the assumptions that can be evaluated between experience studies that provide a more detailed look at changes in a plan's demographic information.

The actuarial discount rate is the rate we expect to achieve on the underlying investment portfolio over the next 30 – 40 years. This rate includes a “real return” plus anticipated inflation for investment returns. Recently, Trustees were advised that using a 10-year yield was more relevant than a longer term, such as 20 – 30 years. Fortunately, the “since inception yield” that has been tracked since 1984 for the CERS plans offers an historical view of the long-term actual earnings. While historical yields do not guarantee future earnings, an historical analysis can outline the trends in 10-yr, actuarial rates, and “since inception” earnings. This analysis can also help frame the potential variances in earnings and the range for potential gains/losses between actual earnings and the actuarial assumption.

Earnings in the attached summary were reported in either the Annual Comprehensive Financial Report (2012 & 2013) or the Summary Annual Financial Report (2014 – 2021). The actuarial discount rate was also reported in the Annual Comprehensive Financial Report. In addition, for 2012 & 2013, earnings for CERS nonhazardous and CERS hazardous were not separately reported, so the performance reflects the total investment earnings of Kentucky Retirement System.

CERS Actuarial Committee Meeting - Economics Assumptions for Actuarial Valuation

**CERS PENSION & OPEB EARNINGS ANALYSIS
FY2012 - FY2021**

NONHAZARDOUS PENSION

Fiscal Year Ended June 30	10-year returns	Actuarial Discount Rate	Since Inception Returns
2012 *	5.99%	7.75%	9.36%
2013 *	6.60%	7.75%	9.40%
2014	6.84%	7.75%	9.62%
2015	6.04%	7.50%	9.34%
2016	5.01%	7.50%	9.02%
2017	4.88%	6.25%	9.16%
2018	6.22%	6.25%	9.15%
2019	8.86%	6.25%	9.05%
2020	7.37%	6.25%	8.82%
2021	8.00%	6.25%	9.20%

* Returns for CERS Haz and CERS NHaz were not reported separately.

NONHAZARDOUS INSURANCE

Fiscal Year Ended June 30	10-year returns	Actuarial Discount Rate	Since Inception Returns
2012 *	5.86%	7.75%	7.53%
2013 *	6.18%	7.75%	7.42%
2014	6.33%	7.75%	7.89%
2015	5.54%	7.50%	7.48%
2016	4.31%	7.50%	7.22%
2017	3.81%	6.25%	7.42%
2018	5.59%	6.25%	7.48%
2019	9.01%	6.25%	7.43%
2020	7.50%	6.25%	7.21%
2021	7.60%	6.25%	7.70%

* Returns for CERS Haz and CERS NHaz were not reported separately.

HAZARDOUS PENSION

Fiscal Year Ended June 30	10-year returns	Actuarial Discount Rate	Since Inception Returns
2012 *	5.99%	7.75%	9.36%
2013 *	6.60%	7.75%	9.40%
2014	6.83%	7.75%	9.61%
2015	6.04%	7.50%	9.34%
2016	5.03%	7.50%	9.03%
2017	4.89%	6.25%	9.17%
2018	6.23%	6.25%	9.15%
2019	8.87%	6.25%	9.06%
2020	7.36%	6.25%	8.82%
2021	8.00%	6.25%	9.20%

* Returns for CERS Haz and CERS NHaz were not reported separately.

HAZARDOUS INSURANCE

Fiscal Year Ended June 30	10-year returns	Actuarial Discount Rate	Since Inception Returns
2012 *	5.86%	7.75%	7.53%
2013 *	6.18%	7.75%	7.42%
2014	6.33%	7.75%	7.89%
2015	5.54%	7.50%	7.48%
2016	4.32%	7.50%	7.22%
2017	3.82%	6.25%	7.43%
2018	5.61%	6.25%	7.49%
2019	9.05%	6.25%	7.44%
2020	7.52%	6.25%	7.21%
2021	7.70%	6.25%	7.70%

* Returns for CERS Haz and CERS NHaz were not reported separately.



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director

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



To: CERS Actuarial Committee
 From: Rebecca H. Adkins
 Deputy Executive Director
 Date: March 14, 2022
 Subject: Actuary Request for Proposal

Kentucky Public Pensions Authority (KPPA) is required under Kentucky Revised Statute 45A, the Kentucky Model Procurement Code, to elicit a request for proposal (RFP) for the procurement of services. The current contract for actuarial services has no more renewals, so KPPA posted an RFP for these services for fiscal year 2023. As allowed under the procurement code, the KPPA procurement team notified as many potential vendors as we are aware of, including all that are registered with the Commonwealth of Kentucky.

Please reference the table below for an anticipated timeline for the RFP:

Milestone	Anticipated Date
Release of RFP	February 21, 2022
Written Questions due by: 3 pm Eastern Time	February 28, 2022
Anticipated Commonwealth Response to Written Questions	March 14, 2022
Proposals Due by: 3pm Eastern Time	March 29, 2022

Action Needed: This memo is for information purposes only.