

# Kentucky Employees Retirement System

GASB No. 74 Accounting Valuation Report  
As of June 30, 2023





December 6, 2023

Board of Trustees  
Kentucky Retirement Systems  
Perimeter Park West  
1260 Louisville Road  
Frankfort, KY 40601

**Re: GASB No. 74 Reporting – Actuarial Information – Kentucky Employees Retirement System**

Dear Members of the Board:

This report provided herein contains certain information for the **Kentucky Employees Retirement System (KERS)** in connection with the Governmental Accounting Standards Board (GASB) Statement No. 74, “Financial Reporting for Postemployment Benefit Plans Other than Pension Plans” for the fiscal year ending June 30, 2023. A separate report will be provided 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”.

The liability calculations presented in this report were performed for the purpose of satisfying the requirements of GASB No. 74 and are not applicable for other purposes, such as determining the plan’s funding requirements. The plan’s liability for other purposes may produce significantly different results. This report may be provided to parties other than the Board of Trustees of the Kentucky Retirement Systems only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The total OPEB liability, net OPEB liability, and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2022. The total OPEB liability was rolled-forward from the valuation date to the plan’s fiscal year ending June 30, 2023, using generally accepted actuarial principles. GASB No. 74 requires the disclosure of a 10-year history of certain information in the Required Supplementary Information within the annual financial report. The exhibits provided in this report include the applicable information for historical years that were calculated in accordance with this accounting standard. Information disclosed for years prior to June 30, 2017 were prepared by the prior actuary.

**Actuarial Assumptions**

The Board of Trustees adopted new actuarial assumptions on June 5, 2023. These assumptions are documented in the report titled “2022 Actuarial Experience Study for the Period Ending June 30, 2022”. Additionally, the discount rate used to calculate the total OPEB liability increased from 5.72% to 5.94% for the non-hazardous plan and from 5.59% to 5.94% for the hazardous plan (see further discussion on the calculation of the single discount rate later in this letter). The Total OPEB Liability as of June 30, 2023 is determined using these updated assumptions.

## **Plan Provisions**

House Bill 506 passed during the 2023 legislative session and adjusted the minimum required separation period before a retiree may become reemployed to be one month for all circumstances for each System maintained by KPPA. This is a minimal change for members in the hazardous plan, as the minimum separation period is currently one month for members who become reemployed on a full-time basis in a hazardous position. The requirement was previously three months only for members who become reemployed on a part-time basis or in any non-hazardous position. We believe House Bill 506 will have an insignificant impact on the retirement pattern of hazardous members and therefore have reflected no fiscal impact to the total OPEB liability of the hazardous plan.

Similarly, this is a relatively small change for future retirees in the non-hazardous plan. But as the minimum separation period was previously three months in almost every circumstance, we have assumed that there would be a 1.0% increase in the rate of retirement for each of the first two years a non-hazardous member becomes retirement eligible under the age of 65, in order to reflect a shift in the retirement pattern. The total OPEB liability as of June 30, 2023 for the non-hazardous plan is determined using these updated benefit provisions.

There were no other plan provision changes that would materially impact the total OPEB liability since June 30, 2022. It is our opinion that these procedures for determining the information contained in these reports are reasonable and appropriate, and comply with applicable requirements under GASB No. 74.

## **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.

## **Single Discount Rate**

Single discount rates of 5.94% for the non-hazardous plan and 5.94% for the hazardous plan were used to measure the total OPEB liability for the fiscal year ending June 30, 2023. They are based on the expected rate of return on OPEB plan investments of 6.50% and a municipal bond rate of 3.86%, as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2023.

Based on the stated assumptions and the projection of cash flows as of each fiscal year ending, 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.

#### **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**

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. We did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2022" and the "2022 Actuarial Experience Study for the Period Ending June 30, 2022" 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 ending June 30, 2023.

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 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,

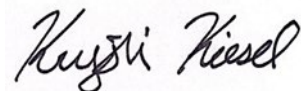
#### **Gabriel Roeder Smith & Company**



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



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Consultant and Actuary



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**SECTION 1**

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## EXHIBIT 1a

### Schedule of the Employers' Net OPEB Liability – KERS Non-Hazardous Plan (\$ 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 Employee Payroll <sup>1</sup>	Net OPEB Liability as a Percentage of Covered Employee Payroll
(1)	(2)	(3)	(4) = (2) - (3)	(5) = (3) / (2)	(6)	(7) = (4) / (6)
2023	\$ 2,317,344	\$ 1,532,752	\$ 784,592	66.14%	\$ 1,653,492	47.45%
2022	3,576,530	1,364,419	2,212,111	38.15%	1,437,132	153.93%
2021	3,698,804	1,419,477	2,279,327	38.38%	1,452,345	156.94%
2020	3,599,557	1,060,649	2,538,908	29.47%	1,482,431	171.27%
2019	3,217,985	995,089	2,222,896	30.92%	1,515,953	146.63%
2018	3,262,117	891,205	2,370,912	27.32%	1,573,898	150.64%
2017	3,353,332	817,370	2,535,962	24.37%	1,593,097	159.18%

Note:

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



## EXHIBIT 1b

### Schedule of the Employers' Net OPEB Liability – KERS Hazardous Plan (\$ 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 Employee Payroll <sup>1</sup>	Net OPEB Liability as a Percentage of Covered Employee Payroll
(1)	(2)	(3)	(4) = (2) - (3)	(5) = (3) / (2)	(6)	(7) = (4) / (6)
2023	\$ 417,361	\$ 625,356	\$ (207,995)	149.84%	\$ 223,922	-92.89%
2022	595,789	588,162	7,627	98.72%	188,648	4.04%
2021	622,152	633,677	(11,525)	101.85%	172,725	-6.67%
2020	564,524	521,755	42,769	92.42%	182,209	23.47%
2019	507,204	534,053	(26,849)	105.29%	151,448	-17.73%
2018	485,904	519,072	(33,168)	106.83%	190,317	-17.43%
2017	494,869	488,838	6,031	98.78%	171,087	3.53%

Note:

<sup>1</sup> Based on derived compensation using the provided employer contribution information. For 2021, 2022, and 2023, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2021, FYE2022, and FYE2023.





## EXHIBIT 2

### Development of Single Discount Rate

	<u>KERS Non-Hazardous</u>	<u>KERS Hazardous</u>
Single Discount Rate	5.94%	5.94%
Long-Term Expected Rate of Return	6.50%	6.50%
Long-Term Municipal Bond Rate <sup>1</sup>	3.86%	3.86%

Notes:

<sup>1</sup> 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, 2023.

## EXHIBIT 3a

### Schedule of the Employers' Net OPEB Liability – KERS Non-Hazardous Plan (\$ in thousands)

Change in the Net OPEB Liability	2023	2022	2021	2020	2019	2018	2017
<b>Total OPEB liability</b>							
Service Cost	\$ 43,199	\$ 62,548	\$ 58,831	\$ 59,600	\$ 61,345	\$ 66,360	\$ 46,992
Interest on the total OPEB liability	200,910	190,531	191,624	179,811	186,820	191,178	192,911
Benefit Changes	3,209	21,884	1,382	0	0	1,865	0
Difference between actual and expected experience	(1,440,201)	(37,249)	(231,631)	288,235	(302,189)	(191,147)	(3,921)
Assumption Changes	61,925	(206,907)	220,184	13,767	158,004	(11,235)	414,835
Benefit Payments <sup>1,2</sup>	(128,228)	(153,081)	(141,143)	(159,841)	(148,112)	(148,236)	(139,601)
<b>Net Change in Total OPEB Liability</b>	<b>(1,259,186)</b>	<b>(122,274)</b>	<b>99,247</b>	<b>381,572</b>	<b>(44,132)</b>	<b>(91,215)</b>	<b>511,216</b>
<b>Total OPEB Liability - Beginning</b>	<b>\$ 3,576,530</b>	<b>\$ 3,698,804</b>	<b>\$ 3,599,557</b>	<b>\$ 3,217,985</b>	<b>\$ 3,262,117</b>	<b>\$ 3,353,332</b>	<b>\$ 2,842,116</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$ 2,317,344</b>	<b>\$ 3,576,530</b>	<b>\$ 3,698,804</b>	<b>\$ 3,599,557</b>	<b>\$ 3,217,985</b>	<b>\$ 3,262,117</b>	<b>\$ 3,353,332</b>
<b>Plan Fiduciary Net Position</b>							
Contributions - Employer <sup>2</sup>	\$ 156,543	\$ 181,294 <sup>5</sup>	\$ 223,661 <sup>5</sup>	\$ 208,300	\$ 201,155	\$ 152,985	\$ 162,636
Contributions - Member	8,358	6,547	6,318	6,128	5,963	5,786	5,156
Benefit Payments <sup>1,2</sup>	(128,228)	(153,081)	(141,143)	(159,841)	(148,112)	(148,236)	(139,601)
OPEB Plan Net Investment Income	132,431	(88,998)	270,811	11,820	45,749	64,028	94,239
OPEB Plan Administrative Expense	(771)	(820)	(819)	(847)	(875)	(760)	(861)
Other	0	0	0	0	4 <sup>4</sup>	32 <sup>4</sup>	0
<b>Net Change in Plan Fiduciary Net Position</b>	<b>168,333</b>	<b>(55,058)</b>	<b>358,828</b>	<b>65,560</b>	<b>103,884</b>	<b>73,835</b>	<b>121,569</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>\$ 1,364,419</b>	<b>\$ 1,419,477</b>	<b>\$ 1,060,649</b>	<b>\$ 995,089</b>	<b>\$ 891,205</b>	<b>\$ 817,370</b>	<b>\$ 695,801</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 1,532,752</b>	<b>\$ 1,364,419</b>	<b>\$ 1,419,477</b>	<b>\$ 1,060,649</b>	<b>\$ 995,089</b>	<b>\$ 891,205</b>	<b>\$ 817,370</b>
<b>Net OPEB Liability - Ending (a) - (b)</b>	<b>784,592</b>	<b>2,212,111</b>	<b>2,279,327</b>	<b>2,538,908</b>	<b>2,222,896</b>	<b>2,370,912</b>	<b>2,535,962</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability</b>	66.14%	38.15%	38.38%	29.47%	30.92%	27.32%	24.37%
<b>Covered Employee Payroll<sup>3</sup></b>	\$ 1,653,492	\$ 1,437,132	\$ 1,452,345	\$ 1,482,431	\$ 1,515,953	\$ 1,573,898	\$ 1,593,097
<b>Net OPEB Liability as a Percentage of Covered Employee Payroll</b>	47.45%	153.93%	156.94%	171.27%	146.63%	150.64%	159.18%

Notes:

- <sup>1</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).
- <sup>2</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to \$27,435,836 for fiscal year 2023.
- <sup>3</sup> Based on derived compensation using the provided employer contribution information.
- <sup>4</sup> Northern Trust Settlement
- <sup>5</sup> Includes \$2.4 million and \$28.4 million employer cessation contribution for fiscal years 2022 and 2021, respectively



## EXHIBIT 3b

### Schedule of the Employers' Net OPEB Liability – KERS Hazardous Plan (\$ in thousands)

Change in the Net OPEB Liability	2023	2022	2021	2020	2019	2018	2017
<b>Total OPEB liability</b>							
Service Cost	\$ 9,435	\$ 14,474	\$ 13,633	\$ 11,548	\$ 12,337	\$ 12,893	\$ 8,002
Interest on the total OPEB liability	32,737	30,599	29,254	28,101	27,990	28,500	27,591
Benefit Changes	0	10,289	48	0	0	167	0
Difference between actual and expected experience	(198,459)	(12,515)	(6,402)	27,668	(30,947)	(31,240)	(1,029)
Assumption Changes	(1,820)	(46,406)	42,022	11,428	31,687	(581)	89,401
Benefit Payments <sup>1,2</sup>	(20,321)	(22,804)	(20,927)	(21,425)	(19,767)	(18,704)	(16,618)
<b>Net Change in Total OPEB Liability</b>	<b>(178,428)</b>	<b>(26,363)</b>	<b>57,628</b>	<b>57,320</b>	<b>21,300</b>	<b>(8,965)</b>	<b>107,347</b>
<b>Total OPEB Liability - Beginning</b>	<b>\$ 595,789</b>	<b>\$ 622,152</b>	<b>\$ 564,524</b>	<b>\$ 507,204</b>	<b>\$ 485,904</b>	<b>\$ 494,869</b>	<b>\$ 387,522</b>
<b>Total OPEB Liability - Ending (a)</b>	<b>\$ 417,361</b>	<b>\$ 595,789</b>	<b>\$ 622,152</b>	<b>\$ 564,524</b>	<b>\$ 507,204</b>	<b>\$ 485,904</b>	<b>\$ 494,869</b>
<b>Plan Fiduciary Net Position</b>							
Contributions - Employer <sup>2</sup>	\$ 2,282	\$ 4,116	\$ 3,556	\$ 7,441	\$ 5,556	\$ 5,165	\$ 4,579
Contributions - Member	1,584	1,227	1,167	1,105	934	909	811
Benefit Payments <sup>1,2</sup>	(20,321)	(22,804)	(20,927)	(21,425)	(19,767)	(18,704)	(16,618)
OPEB Plan Net Investment Income	53,772	(27,929)	128,244	704	28,373	42,950	59,614
OPEB Plan Administrative Expense	(123)	(125)	(118)	(123)	(117)	(104)	(105)
Other	0	0	0	0	2 <sup>4</sup>	18 <sup>4</sup>	0
<b>Net Change in Plan Fiduciary Net Position</b>	<b>37,194</b>	<b>(45,515)</b>	<b>111,922</b>	<b>(12,298)</b>	<b>14,981</b>	<b>30,234</b>	<b>48,281</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>\$ 588,162</b>	<b>\$ 633,677</b>	<b>\$ 521,755</b>	<b>\$ 534,053</b>	<b>\$ 519,072</b>	<b>\$ 488,838</b>	<b>\$ 440,557</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 625,356</b>	<b>\$ 588,162</b>	<b>\$ 633,677</b>	<b>\$ 521,755</b>	<b>\$ 534,053</b>	<b>\$ 519,072</b>	<b>\$ 488,838</b>
<b>Net OPEB Liability - Ending (a) - (b)</b>	<b>(207,995)</b>	<b>7,627</b>	<b>(11,525)</b>	<b>42,769</b>	<b>(26,849)</b>	<b>(33,168)</b>	<b>6,031</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability</b>	149.84%	98.72%	101.85%	92.42%	105.29%	106.83%	98.78%
<b>Covered Employee Payroll<sup>3</sup></b>	\$ 223,922	\$ 188,648	\$ 172,725	\$ 182,209	\$ 151,448	\$ 190,317	\$ 171,087
<b>Net OPEB Liability as a Percentage of Covered Employee Payroll</b>	-92.89%	4.04%	-6.67%	23.47%	-17.73%	-17.43%	3.53%

Notes:

<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 \$792,418 for fiscal year 2023.

<sup>3</sup> Based on derived compensation using the provided employer contribution information. For 2021, 2022, and 2023, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2021, FYE2022, and FYE2023.

<sup>4</sup> Northern Trust Settlement



## EXHIBIT 4a

### Schedule of Employers' Contributions – KERS Non-Hazardous Plan (\$ in thousands)

Fiscal Year Ending <sup>1</sup>	Actuarially Determined Contribution <sup>2</sup>	Total Employer Contributions <sup>3</sup>	Contribution Deficiency (Excess)	Covered Employee Payroll <sup>4</sup>	Actual Contributions as a Percentage of Covered Payroll
2023	\$ 123,952	\$ 129,108	\$ (5,156)	\$ 1,653,492	7.81%
2022	135,809	140,694	(4,885)	1,437,132	9.79%
2021	161,936	186,676	(24,740)	1,452,345	12.85%
2020	183,821	175,006	8,815	1,482,431	11.81%
2019	187,978	178,964	9,014	1,515,953	11.81%
2018	132,365	136,419	(4,054)	1,573,898	8.67%
2017	133,024	152,356	(19,332)	1,593,097	9.56%
2016	121,899	135,816	(13,917)	1,529,249	8.88%
2015	130,455	135,940	(5,485)	1,544,234	8.80%
2014	208,881	166,610	42,271	1,577,496	10.56%

Notes:

<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 ending 2023 is based on the contribution rate calculated with the June 30, 2021 actuarial valuation.

<sup>3</sup> Employer contributions do not include the expected implicit subsidy included in exhibit 3.

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



## EXHIBIT 4b

### Schedule of Employers' Contributions – KERS Hazardous Plan (\$ in thousands)

Fiscal Year Ending <sup>1</sup>	Actuarially Determined Contribution <sup>2</sup>	Total Employer Contributions <sup>3</sup>	Contribution Deficiency (Excess)	Covered Employee Payroll <sup>4</sup>	Actual Contributions as a Percentage of Covered Payroll
2023	\$ 0	\$ 1,489	\$ (1,489)	\$ 223,922	0.66%
2022	0	1,281	(1,281)	188,648	0.68%
2021	0	1,300	(1,300)	172,725	0.75%
2020	4,482	5,776	(1,294)	182,209	3.17%
2019	3,726	4,970	(1,244)	151,448	3.28%
2018	2,550	5,288	(2,738)	190,317	2.78%
2017	4,688	5,620	(932)	171,087	3.28%
2016	9,186	16,766	(7,580)	147,563	11.36%
2015	13,152	14,882	(1,730)	128,680	11.57%
2014	15,627	23,874	(8,247)	129,076	18.50%

Notes:

<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 ending 2023 is based on the contribution rate calculated with the June 30, 2021 actuarial valuation.

<sup>3</sup> Employer contributions do not include the expected implicit subsidy included in exhibit 3.

<sup>4</sup> Based on derived compensation using the provided employer contribution information. For 2021, 2022, and 2023, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2021, FYE2022, and FYE2023.



## Notes to Schedule of Employers' Contributions for FYE 2023

The actuarially determined contributions effective for fiscal year ending 2023 that are documented in the schedule on the previous pages were calculated as of June 30, 2021. Based on the June 30, 2021 actuarial valuation report, the actuarial methods and assumptions used to calculate these contributions are below:

Item	KERS Non-Hazardous	KERS Hazardous
Determine by the Actuarial Valuation as of:	June 30, 2021	June 30, 2021
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 <i>Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases</i>	30-year closed period at June 30, 2019 <i>Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases</i>
Payroll Growth Rate:	0.00%	0.00%
Investment Return:	6.25%	6.25%
Inflation:	2.30%	2.30%
Salary Increases:	3.30% to 15.30%, varies by service	3.55% to 20.05%, 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 6.30% at January 1, 2023, gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.30% at January 1, 2023, gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.
Post-65	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2022 premiums were known at the time of the valuation and were incorporated into the liability measurement.



## EXHIBIT 5a

### Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate KERS Non-Hazardous Plan (\$ in thousands)

**Table 1. Sensitivity of the Net OPEB Liability to Changes in the Discount Rate**

1.00% Decrease, 4.94%	Current Discount Rate, 5.94%	1.00% Increase, 6.94%
\$ 1,055,209	\$ 784,592	\$ 557,024

**Table 2. Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate**

1.00% Decrease	Current Healthcare Cost Trend Rate	1.00% Increase
\$ 575,159	\$ 784,592	\$ 1,038,116

## EXHIBIT 5b

### Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate KERS Hazardous Plan (\$ in thousands)

**Table 1. Sensitivity of the Net OPEB Liability to Changes in the Discount Rate**

1.00% Decrease, 4.94%	Current Discount Rate, 5.94%	1.00% Increase, 6.94%
\$ (155,851)	\$ (207,995)	\$ (251,094)

**Table 2. Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate**

1.00% Decrease	Current Healthcare Cost Trend Rate	1.00% Increase
\$ (239,711)	\$ (207,995)	\$ (169,294)



# APPENDIX 1

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# Appendix 1

## Development of Baseline Claims Cost

For non-Medicare retirees, the initial per capita costs were developed using retiree claims experience for calendar years 2020 through 2022. The claims were projected on an incurred claim basis, adjusted for prescription drug rebates, and loaded for administrative expense. The per capita costs shown in the table below also include HRA contributions for retirees on the CDHP plans. An inherent assumption in this methodology is that the projected future retirees will have a similar distribution by plan type as the current retirees. The fully-insured premiums paid to 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.


For Medicare retirees, the initial per capita costs were estimated based on the plan premiums effective January 1, 2023, and are used for both current and future retirees. An inherent assumption in this methodology is that the projected future retirees will have a similar distribution by plan type as the current retirees.

Age graded and sex distinct premiums are utilized by this valuation. These costs are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific costs more accurately reflect the health care utilization and cost at that age.

FOR THOSE NOT ELIGIBLE FOR MEDICARE (as of January 1, 2023)		
AGE	MALE	FEMALE
40	\$373.36	\$606.68
50	605.22	745.56
60	1,028.58	1,012.80
64	1,250.79	1,180.40

FOR THOSE ELIGIBLE FOR MEDICARE (as of January 1, 2023)		
AGE	MALE	FEMALE
65	\$78.14	\$73.71
75	91.43	89.21
85	96.68	97.82

Blake Orth is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.



Blake Orth, FSA, EA, MAAA

