Teachers' Retirement System of the State of Kentucky Retiree Medical and Life Insurance Plans

GASB Statement No. 74 Report

Prepared as of June 30, 2024

CavMac
Actuarial Consulting Services

CavMac
Actuarial Consulting Services

October 14, 2024
Board of Trustees
Teachers' Retirement System
of the State of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Members of the Board:

Presented in this report is information to assist the Teachers' Retirement System of the State of Kentucky (system) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 74 for the Retiree Medical Plan funded by the Health Insurance Trust (Health Trust) and the Life Insurance Plan funded by the Life Insurance Trust (Life Trust). The information is presented for the one-year period ending June 30, 2024. These calculations have been made on a basis that is consistent with our understanding of the accounting standard.

The annual actuarial valuation performed as of June 30, 2023 was used as the basis for much of the information presented as of June 30, 2024 in this report. The valuation was based upon data furnished by the system concerning active, inactive, and retired members along with pertinent claims data and financial information. This information was reviewed for completeness and internal consistency but was not audited. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different, and our calculations may need to be revised.

The initial per capita costs of health care and the rates of health care inflation used to project the per capita health care costs have been revised since the previous valuation to reflect recent experience and revised expectations. In addition, we have updated our morbidity factors used for retirees to the relative value factors developed from the Society of Actuaries' June 2013 research report Health Care Costs—From Birth to Death by Dale Yamamoto and from the ASOP 6 practice note developed by the American Academy of Actuaries.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

The valuation covers benefits for members hired before July 1, 2002 (TRS 1), members hired between July 1, 2002 and June 30, 2008 (TRS 2), members hired between July 1, 2008 and December 31, 2021 (TRS 3), and members hired on/after January 1, 2022 (TRS 4).

To the best of our knowledge, the information contained in this report is complete and accurate. These calculations were performed by, and under the supervision of, independent consulting actuaries with experience in performing valuations for public retirement systems. In addition, the valuation was prepared in accordance with generally accepted actuarial principles and practices as well as with Actuarial Standards of Practice prescribed by the Actuarial Standards Board.

Our calculation of the liabilities associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statement No. 74. The calculation of the Health Trust and Life Trust liabilities for this report may not be applicable for funding purposes of the Health Trust and Life Trust. A calculation of the Health Trust's and Life Trust's liabilities for purposes other than satisfying the requirements of GASB No. 74 may produce significantly different results.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuations were prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the medical plans and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of each plan.

Respectfully submitted,

Alisa Bennett
Edward J. Koebel

Alisa Bennett, FSA, EA, FCA, MAAA
President

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Jessica Fain

Jessica Fain, EA, MAAA
Associate Actuary

AB/EK/JF:JF

Table of Contents

SECTION 1 - INTRODUCTION

The Governmental Accounting Standards Board issued Statement No. 74 (GASB 74), *"Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,"* in June 2015. For the purposes of reporting under GASB 74, the Health Trust and Life Trust are assumed to be cost-sharing, multiple-employer, defined benefit OPEB plans with a special funding situation, where assets are accumulated in trusts or equivalent arrangements that meet the criteria in paragraph 3 of GASB 74.

This report, prepared as of June 30, 2024 (Measurement Date or MD), presents information to assist the system in meeting the requirements of GASB 74. Much of the material provided in this report is based on the data, assumptions, and results of the annual actuarial valuation of the Health Trust and Life Trust, as of June 30, 2023 (Valuation Date or VD). The results of that valuation were detailed in a report dated November 14, 2023.

GASB 74 requires the determination of the Total OPEB Liability (TOL) utilizing the Entry Age Normal (EAN) actuarial cost method. If the valuation date at which the TOL is determined is before the measurement date, as is the case here, the TOL must be rolled forward to the measurement date. The Net OPEB Liability (NOL) is then set equal to the rolled forward TOL minus the plan's Fiduciary Net Position (FNP) (basically the market value of assets as of the Measurement Date). The plan provisions recognized in the calculation of the TOL of the Health Trust and Life Trust are summarized in Schedule B. The development of the roll-forward of the TOLs of the Health Trust and Life Trust is shown in the tables on page 10 and page 11.

Among the assumptions needed for the liability calculation is the discount rate, as defined by GASB, or a Single Equivalent Interest Rate (SEIR). To determine the SEIR, the FNP must be projected into the future for as long as there are anticipated benefits payable under the plan's provisions applicable to the membership and beneficiaries of the Plan on the Measurement Date. Future contributions are to be projected in accordance with a plan's funding policy (as shown in Schedule E of this report) and/or the application of professional judgment to consider the recent contribution history of the employers and non-employer contributing entities. If the FNP is not projected to be depleted at any point in the future, the long term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.

If, however, at a future measurement date, the FNP is projected to be depleted, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long-term expected rate of return, and the present value determined by discounting those benefits after the date of depletion by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate (Municipal Bond Index Rate). The rate used, if necessary, for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate for the month of June. Our calculations indicated the FNP is not projected to be depleted, so the Municipal Bond Index Rate was not used in the determination of the SEIR. Please see Paragraph 35(b) in the GASB 74 section for more explanation into the development of the SEIR.

SECTION 1 - INTRODUCTION

The FNP projections are based upon the Plan's financial status on the Valuation Date, the indicated set of methods and assumptions, and the requirements of GASB 74. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of the Plan, or the Plan's ability to make benefit payments in future years.

The sections that follow provide the results of all the necessary calculations, presented in the order laid out in GASB 74, for note disclosure and Required Supplementary Information (RSI).

The material presented herein will follow the order presented in GASB 74. There are non-actuarial items required which are not included in this report. Paragraph numbers are provided for ease of reference.

Paragraphs 34(a)(1)-(3): CavMac was not expected to supply this information.

Paragraph 34(a)(4): The data required regarding the membership of the Health Trust and Life Trust were furnished by the system. The following table summarizes the membership of the Plan as of June 30, 2023, the Valuation Date.

	Membership	
	Health Insurance Trust	Life Insurance Trust
Retired Members Or Their Beneficiaries Currently Receiving Benefits	42,142*	53,379
Inactive Members Entitled To But Not Yet Receiving Benefits	7,917	11,216
Eligible Active Members	71,005	70,528
Total Membership	121,064	135,123

** Includes 1,087 Surviving Spouses with coverage in the Health Insurance Trust*

Paragraphs 34(a)(5)-(6) and 34(b)-(e): CavMac was not expected to supply this information.

Paragraph 35(a)(1)-(4): The information is provided in the following table. As stated previously, the NOL is equal to the TOL minus the FNP. Those results as of June 30, 2024, the Measurement Date, are presented in the table below.

Measurement Date of June 30, 2024 ($ in Thousands)		
	Health Insurance Trust	Life Insurance Trust
TOL*	$ 5,546,693	$ 126,072
FNP	3,317,711	101,559
NOL	$ 2,228,982	$ 24,513
Ratio of FNP to TOL	59.81%	80.56%

** For the Health Trust, the TOL includes the additional consideration for the current treatment of KEHP implicit subsidies that may be needed in the future. This is an additional liability from our funding Health Trust accrued liabilities.*

Paragraph 35(b): Listed below is the information to be disclosed regarding the actuarial assumptions and other inputs used to measure the TOL. The complete set of actuarial assumptions and other inputs utilized in developing the TOL are outlined in Schedule C. The TOL was determined by an actuarial valuation as of June 30, 2023, using assumptions based on the experience investigation for the five-year period ending June 30, 2020. The following actuarial assumptions are applied to all periods included in the measurement:

Inflation	2.50%
Real wage growth	0.25%
Wage inflation	2.75%
Salary increases, including wage inflation	3.00% - 7.50%
Long-term Investment Rate of Return, net of OPEB plan investment expense, including inflation	
Health Trust	7.10%
Life Trust	7.10%
Municipal Bond Index Rate	3.94%
Year FNP is projected to be depleted	
Health Trust	N/A
Life Trust	N/A
Single Equivalent Interest Rate, net of OPEB plan investment expense, including price inflation	
Health Trust	7.10%
Life Trust	7.10%
Health Trust Health Care Cost Trends	
Medical Trend	6.50% for FYE 2024, decreasing to an ultimate rate of 4.50% by FYE 2031
Medicare Part B Premiums	5.92% for FYE 2024 with an ultimate rate of 4.50% by FYE 2035

Mortality rates were based on the Pub2010 (Teachers Amount-Weighted) Mortality Table projected generationally with MP-2020 with various set-forwards, set-backs, and adjustments for each of the groups; service retirees, contingent annuitants, disabled retirees, deferred vested retirees, and active members.

The demographic actuarial assumptions for retirement, disability incidence, withdrawal, rates of plan participation, and rates of plan election used in the June 30, 2023 valuation were based on the results of the most recent actuarial experience studies for the system, which covered the five-year period ending June 30, 2020, adopted by the Board on September 20, 2021.

The remaining actuarial assumptions (e.g., initial per capita costs, health care cost trends) used in the June 30, 2023 valuation of the Health Trust were based on a review of recent plan experience done concurrently with the June 30, 2023 valuation. The health care cost trend assumption was updated for the June 30, 2023 valuation and was shown as an assumption change in the TOL roll-forward while the change in initial per capita claims costs were included with experience in the TOL roll-forward.

The long-term expected rate of return on Health Trust and Life Trust investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense, and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The most recent target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by TRS's investment consultant, are summarized in the following tables:

Health Insurance Trust		
Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Large Cap U.S. Equity	35.4%	5.0%
Small Cap U.S. Equity	2.6%	5.5%
Developed International Equity	15.0%	5.5%
Emerging Markets Equity	5.0%	6.1%
Fixed Income	9.0%	1.9%
High Yield Bonds	8.0%	3.8%
Other Additional Categories	9.0%	3.7%
Real Estate	6.5%	3.2%
Private Equity	8.5%	8.0%
Cash	1.0%	1.6%
Total	100.0%	

Life Insurance Trust		
Asset Class	Target Allocation	Long Term Expected Real Rate of Return
U.S. Equity	40.0%	5.2%
Developed International Equity	15.0%	5.5%
Emerging Markets Equity	5.0%	6.1%
Fixed Income	21.0%	1.9%
Other Additional Categories	5.0%	4.0%
Real Estate	7.0%	3.2%
Private Equity	5.0%	8.0%
Cash	2.0%	1.6%
Total	100.0%	

Health Trust Discount rate (SEIR). The discount rate used to measure the TOL as of the Measurement Date was 7.10%. The projection of cash flows used to determine the discount rate was performed in accordance with GASB 74. The projection's basis was an actuarial valuation performed as of June 30, 2023. In addition to the actuarial methods and assumptions of the June 30, 2023 actuarial valuation, the following actuarial methods and assumptions were used in the projection of cash flows:

- Total payroll for the initial projection year consists of the payroll of the active membership present on the Valuation Date. In subsequent projection years, total payroll was assumed to increase annually at a rate of 2.75%
- The pre-65 retiree health care costs for members retired on or after July 1, 2010 were assumed to be paid by either the State or the retirees themselves.
- As administrative expenses, other than the administrative fee of $8.00 PMPM paid to KEHP by TRS, were assumed to be paid in all years by the employer as they come due, they were not considered
- Cash flows occur mid-year.
- Future contributions to the Health Trust were based upon the contribution rates defined in statute and the projected payroll of active employees. Per KRS 161.540(1)(c).3 and 161.550(5), when the Health Trust achieves a sufficient prefunded status, as determined by the retirement system's actuary, the following Health Trust statutory contributions are to be decreased, suspended, or eliminated:
    - Employee contributions
    - School District/University Contributions
    - State Contributions for KEHP premium subsidies payable to retirees who retire after June 30, 2010

  To reflect these adjustments, open group projections were used and assumed an equal, pro rata reduction to the current statutory amounts in the years if/when the Health Trust is projected to achieve a Funded Ratio of 100% or more. Here, the current statutory amounts are adjusted to achieve total contributions equal to the Actuarially Determined Contribution (ADC), as determined by the prior year's valuation and in accordance with the Health Trust's funding policy. As the specific methodology to be used for the adjustments has yet to be determined, there may be differences between the projected results and future experience. This may also include any changes to retiree contributions for KEHP coverage pursuant to KRS 161.675(4)(b).
- In developing the adjustments to the statutory contributions in future years, the following was assumed:
    - Liabilities and cash flows are net of expected retiree contributions and any implicit subsidies attributable to coverage while participating in KEHP.
    - For the purposes of developing estimates for new entrants, active headcounts were assumed to remain flat for all future years.

Based on these assumptions, the Health Trust's FNP was <u>not</u> projected to be depleted.

Life Trust Discount rate (SEIR). The discount rate used to measure the TOL as of the Measurement Date was 7.10%. The projection of cash flows used to determine the discount rate was performed in accordance with GASB 74. The projection's basis was an actuarial valuation performed as of June 30, 2023. In addition to the actuarial methods and assumptions of the June 30, 2023 actuarial valuation, the following actuarial methods and assumptions were used in the projection of the Life Trust's cash flows:

- Total payroll for the initial projection year consists of the payroll of the active membership present on the Valuation Date. In subsequent projection years, total payroll was assumed to increase annually at a rate of 2.75%.
- The employer will contribute the Actuarially Determined Contribution (ADC) in accordance with the Life Trust's funding policy determined by a valuation performed on a date two years prior to the beginning of the fiscal year in which the ADC applies.
- As administrative expenses were assumed to be paid in all years by the employer as they come due, they were not considered.
- Active employees do not contribute to the plan.
- Cash flows occur mid-year.

Based on these assumptions, the Life Trust's FNP was not projected to be depleted.

The FNP projections are based upon the Health Trust's and the Life Trust's financial statuses on the Valuation Date, the indicated set of methods and assumptions, and the requirements of GASB 74. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing basis, reflecting the impact of future members. Therefore, the results of these tests do not necessarily indicate whether or not the Health Trust and the Life Trust will actually run out of money, the financial condition of the Health Trust and the Life Trust, or the Health Trust's and the Life Trust's ability to make benefit payments in future years.

Paragraphs 35(b)(1) and 35(b)(2)(g): These paragraphs require disclosure of the sensitivity of the NOL to changes in the health care cost trend rates for the Health Trust and the discount rate for the Health Trust and the Life Trust. The following exhibit presents the NOL of the Health Trust, calculated using the health care cost trend rates, as well as what the Health Trust's NOL would be if it were calculated using a health care cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate. Similarly, the subsequent exhibit presents the NOL of the Health Trust and Life Trust, calculated using the Single Equivalent Interest Rate, as well as what the Health Trust's and Life Trust's NOL would be if they were calculated using a Discount Rate that is 1-percentage-point lower or 1-percentage-point higher than the current Single Equivalent Interest Rate:

	Net OPEB Liability - Health Insurance Trust ($ in Thousands)		
	Health Care Cost Trend Rates		
Discount Rate	1% Decrease	Current	1% Increase
1% Increase (8.10%)		$ 1,622,126	
Current (7.10%)	$ 1,505,651	$ 2,228,982	$ 3,127,709
1% Decrease (6.10%)		$ 2,961,188	

Discount Rate	Net OPEB Liability - Life Insurance Trust ($ in Thousands)
1% Increase (8.10%)	$ 10,327
Current (7.10%)	$ 24,513
1% Decrease (6.10%)	$ 42,041

Paragraph 35(c): The TOLs of the Health Trust and Life Trust are based upon an actuarial valuation performed as of the Valuation Date, June 30, 2023. An expected TOL is determined as of June 30, 2024 using standard roll-forward techniques. The roll-forward calculation begins with the TOL, as of June 30, 2023, subtracts the actual benefit payments (net of retiree contributions, if applicable) for the year, applies interest at the discount rate for the year, and then adds the annual normal cost (also called the Service Cost). If applicable, actuarial gains and losses arising from the difference between estimates and actual experience (excluding amounts related to benefit changes and changes in assumptions or other inputs) are reconciled to the TOL as of the Measurement Date. Last, any changes of assumptions or other inputs are reflected. The procedure used to determine the TOL of the Health Trust and Life Trust, as of June 30, 2024, is shown in the following tables:

TOL Roll Forward - Health Insurance Trust
($ in Thousands)

		Expected	Actual
(a)	TOL as of June 30, 2023*	$ 5,179,049	$ 5,023,491
(b)	Actual Benefit Payments and Refunds for the Year July 1, 2023 - June 30, 2024	(143,522)	(143,522)
(c)	Interest on TOL = [(a) x (0.071)] + [(b) x (0.0355)]	362,617	351,573
(d)	Service Cost for the Year July 1, 2023 - June 30, 2024 at the End of the Year	130,757	130,757
(e)	Changes of Benefit Terms	0	0
(f)	Change of Assumptions**	184,394	184,394
(g)	TOL Rolled Forward to June 30, 2024 = (a) + (b) + (c) + (d) + (e) + (f)	$ 5,713,295	$ 5,546,693
(h)	Difference between Expected and Actual Experience (Gain)/Loss		$ (166,602)

** The TOL used in the roll-forward as of June 30, 2023 is calculated using the discount rate as of the Prior Measurement Date.*
*** The health care trend rates and morbidity factors were updated to reflect future anticipated experience.*

TOL Roll Forward - Life Insurance Trust
($ in Thousands)

		Expected	Actual
(a)	TOL as of June 30, 2023*	$ 122,254	$ 122,611
(b)	Actual Benefit Payments and Refunds for the Year July 1, 2023 - June 30, 2024	(6,106)	(6,106)
(c)	Interest on TOL = [(a) x (0.071)] + [(b) x (0.0355)]	8,463	8,489
(d)	Service Cost for the Year July 1, 2023 - June 30, 2024 at the End of the Year	1,078	1,078
(e)	Changes of Benefit Terms	0	0
(f)	Change of Assumptions	0	0
(g)	TOL Rolled Forward to June 30, 2024 = (a) + (b) + (c) + (d) + (e) + (f)	$ 125,689	$ 126,072
(h)	Difference between Expected and Actual Experience (Gain)/Loss		$ 383

** The TOL used in the roll-forward as of June 30, 2023 is calculated using the discount rate as of the Prior Measurement Date.*

SECTION 3 – REQUIRED SUPPLEMENTARY INFORMATION

There are several tables of Required Supplementary Information (RSI) that need to be included in the Plan's financial statements:

Paragraphs 36(a)-(c): The required tables of schedules are provided in Schedule A.

Paragraph 36(d): The required schedule presenting the annual money-weighted rates of return is to be supplied by the system.

Paragraph 38: Information regarding changes to benefit terms and changes to assumptions or other inputs should be noted regarding the RSI. The information should be listed by the date for which the indicated change was first reflected in reported amounts.

Changes to benefit terms:

June 30, 2024 (Valuation Date: June 30, 2023)

Health Trust and Life Trust

- None

Changes to assumptions or other inputs:

June 30, 2024 (Valuation Date: June 30, 2023)

Health Trust

- The health care trend rates, as well as the morbidity factors, were updated to reflect future anticipated experience.

Life Trust

- None

Methods and assumptions used in calculations of Actuarially Determined Contributions. The Actuarially Determined Contribution rates, as a percentage of payroll, used to determine the Actuarially Determined Contribution amounts in the Schedule of Employer Contributions (Schedule A) are calculated as of the indicated Valuation Date. The following actuarial methods and assumptions (from the indicated actuarial valuations) were used to determine contribution rates reported in that schedule for the year ending June 30, 2024 for the Life Trust:

Valuation Date	June 30, 2021
Actuarial cost method	Entry Age Normal
Amortization method	Level Percent of Payroll
Amortization period (Closed)	23 Years
Asset valuation method	Five-year smoothed value
Inflation	2.50%
Real wage growth	0.50%
Wage Inflation	2.75%
Salary increases, including wage inflation	3.00% - 7.50%
Discount Rate	7.10%

The Health Trust is not funded based on an actuarially determined contribution, but instead is funded based on statutorily determined amounts as noted on page 7. The Schedule of Employer Contributions (Schedule A) details the statutorily determined amounts for the Health Trust.

SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY
GASB 74 Paragraph 36(a)
($ in Thousands)

Health Insurance Trust	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total OPEB Liability										
Service Cost at end of year	$ 130,757	$ 120,458	$ 109,082	$ 84,727	$ 82,572	$ 93,792	$ 95,382	$ 95,625		
Interest	362,617	332,938	311,875	326,008	341,430	366,254	355,491	333,990		
Change of benefit terms	0	0	0	0	0	0	0	8,926		
Difference between expected and actual experience	(166,602)	(98,177)	(68,928)	(490,732)	(585,090)	(661,228)	(210,450)	0		
Changes of assumptions	184,394	196,990	60,667	516,431	106,575	45,659	56,483	0		
Benefit payments	(143,522)	(124,866)	(107,201)	(130,648)	(145,869)	(163,666)	(161,082)	(178,500)		
Net change in Total OPEB Liability	$ 367,644	$ 427,343	$ 305,495	$ 305,786	$ (200,382)	$ (319,189)	$ 135,824	$ 260,041		
Total OPEB Liability - beginning	$ 5,179,049	$ 4,751,706	$ 4,446,211	$ 4,140,425	$ 4,340,807	$ 4,659,996	$ 4,524,172	$ 4,264,131		
Total OPEB Liability - ending (a)	$ 5,546,693	$ 5,179,049	$ 4,751,706	$ 4,446,211	$ 4,140,425	$ 4,340,807	$ 4,659,996	$ 4,524,172		
Plan Net Position										
Contributions - State of Kentucky	$ 96,419	$ 85,328	$ 31,349	$ 78,217	$ 77,191	$ 76,382	$ 80,959	$ 75,497		
Contributions - Other Employers	127,902	123,488	120,416	106,670	107,434	106,764	106,143	104,879		
Contributions - Active Member	155,327	149,210	145,682	128,117	133,471	131,677	130,778	128,819		
Net investment income	340,293	243,051	(219,500)	503,201	32,475	74,385	76,841	95,453		
Benefit payments	(143,522)	(124,866)	(107,201)	(130,648)	(145,869)	(163,666)	(161,082)	(178,500)		
Administrative expense	(2,121)	(1,974)	(2,074)	(1,728)	(2,047)	(1,803)	(1,748)	(1,539)		
Other	0	0	0	0	0	0	0	0		
Net change in Plan Net Position	$ 574,298	$ 474,237	$ (31,328)	$ 683,829	$ 202,655	$ 223,739	$ 231,891	$ 224,609		
Plan Net Position - beginning	$ 2,743,413	$ 2,269,176	$ 2,300,504	$ 1,616,675	$ 1,414,020	$ 1,190,281	$ 958,390	$ 733,781		
Plan Net Position - ending (b)	$ 3,317,711	$ 2,743,413	$ 2,269,176	$ 2,300,504	$ 1,616,675	$ 1,414,020	$ 1,190,281	$ 958,390		
Net OPEB Liability - ending (a) - (b)	$ 2,228,982	$ 2,435,636	$ 2,482,530	$ 2,145,707	$ 2,523,750	$ 2,926,787	$ 3,469,715	$ 3,565,782		

SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY
GASB 74 Paragraph 36(a)
($ in Thousands)

Life Insurance Trust										
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total OPEB Liability										
Service Cost at end of year	$ 1,078	$ 1,035	$ 943	$ 1,289	$ 1,299	$ 1,271	$ 1,068	$ 1,067		
Interest	8,463	8,263	8,337	8,926	8,563	8,256	8,026	7,761		
Change of benefit terms	0	0	0	0	0	0	0	0		
Difference between expected and actual experience	383	(308)	(4,123)	122	705	(204)	(717)	0		
Changes of assumptions	0	(1)	0	(5,792)	0	0	0	0		
Benefit payments	(6,106)	(6,219)	(6,178)	(6,120)	(5,317)	(5,153)	(5,453)	(5,151)		
Net change in Total OPEB Liability	$ 3,818	$ 2,770	$ (1,021)	$ (1,575)	$ 5,250	$ 4,170	$ 2,924	$ 3,677		
Total OPEB Liability - beginning	$ 122,254	$ 119,484	$ 120,505	$ 122,080	$ 116,830	$ 112,660	$ 109,736	$ 106,059		
Total OPEB Liability - ending (a)	$ 126,072	$ 122,254	$ 119,484	$ 120,505	$ 122,080	$ 116,830	$ 112,660	$ 109,736		
Plan Net Position										
Contributions - State of Kentucky	$ 2,778	$ 2,599	$ 2,194	$ 1,852	$ 1,543	$ 1,209	$ 897	$ 882		
Contributions - Other Employers	579	624	561	286	253	212	161	168		
Contributions - Active Member	0	0	0	0	0	0	0	0		
Net investment income	10,315	8,683	(15,582)	24,075	5,167	5,058	1,111	915		
Benefit payments	(6,106)	(6,219)	(6,178)	(6,120)	(5,317)	(5,153)	(5,453)	(5,151)		
Administrative expense	(37)	(38)	(41)	(34)	(36)	(30)	(31)	(28)		
Other	0	0	0	0	0	0	0	0		
Net change in Plan Net Position	$ 7,529	$ 5,649	$ (19,046)	$ 20,059	$ 1,610	$ 1,296	$ (3,315)	$ (3,214)		
Plan Net Position - beginning	$ 94,030	$ 88,381	$ 107,427	$ 87,368	$ 85,758	$ 84,462	$ 87,777	$ 90,991		
Plan Net Position - ending (b)	$ 101,559	$ 94,030	$ 88,381	$ 107,427	$ 87,368	$ 85,758	$ 84,462	$ 87,777		
Net OPEB Liability - ending (a) - (b)	$ 24,513	$ 28,224	$ 31,103	$ 13,078	$ 34,712	$ 31,072	$ 28,198	$ 21,959		

SCHEDULE OF THE NET OPEB LIABILITY
GASB 74 Paragraph 36(b)
($ in Thousands)

Health Insurance Trust										
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total OPEB Liability	$ 5,546,693	$ 5,179,049	$ 4,751,706	$ 4,446,211	$ 4,140,425	$ 4,340,807	$ 4,659,996	$ 4,524,172		
Plan Fiduciary Net Position	3,317,711	2,743,413	2,269,176	2,300,504	1,616,675	1,414,020	1,190,281	958,390		
Net OPEB Liability	$ 2,228,982	$ 2,435,636	$ 2,482,530	$ 2,145,707	$ 2,523,750	$ 2,926,787	$ 3,469,715	$ 3,565,782		
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	59.81%	52.97%	47.75%	51.74%	39.05%	32.58%	25.54%	21.18%		
Covered Payroll	$ 4,140,446	$ 3,977,280	$ 3,876,491	$ 3,638,905	$ 3,569,262	$ 3,497,216	$ 3,455,660	$ 3,415,432		
Net OPEB Liability as a percentage of covered payroll	53.83%	61.24%	64.04%	58.97%	70.71%	83.69%	100.41%	104.40%		

SCHEDULE OF THE NET OPEB LIABILITY
GASB 74 Paragraph 36(b)
($ in Thousands)

Life Insurance Trust										
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total OPEB Liability	$ 126,072	$ 122,254	$ 119,484	$ 120,505	$ 122,080	$ 116,830	$ 112,660	$ 109,736		
Plan Fiduciary Net Position	101,559	94,030	88,381	107,427	87,368	85,758	84,462	87,777		
Net OPEB Liability	$ 24,513	$ 28,224	$ 31,103	$ 13,078	$ 34,712	$ 31,072	$ 28,198	$ 21,959		
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	80.56%	76.91%	73.97%	89.15%	71.57%	73.40%	74.97%	79.99%		
Covered Payroll	$ 4,140,446	$ 3,977,280	$ 3,876,491	$ 3,638,905	$ 3,569,262	$ 3,497,216	$ 3,455,660	$ 3,415,432		
Net OPEB Liability as a percentage of covered payroll	0.59%	0.71%	0.80%	0.36%	0.97%	0.89%	0.82%	0.64%		

SCHEDULE OF EMPLOYER CONTRIBUTIONS
GASB 74 Paragraph 36(c)
($ in Thousands)

Health Insurance Trust	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Statutorily Required Contributions										
Employer	$ 127,902	$ 123,488	$ 120,416	$ 106,670	$ 107,434	$ 106,764	$ 106,143	$ 104,879	$ 104,271	$ 77,656
State										
Pre-65 Health Insurance Premiums	$ 70,379	$ 60,958	$ 56,312	$ 55,061	$ 54,034	$ 53,707	$ 58,535	$ 53,454	$ 52,542	$ 46,233
SEEK .75%	26,040	24,370	23,507	23,156	23,157	22,675	22,424	22,043	21,825	21,375
Allotment from Pension	0	0	0	0	0	0	0	0	0	0
Total State	$ 96,419	$ 85,328	$ 79,819	$ 78,217	$ 77,191	$ 76,382	$ 80,959	$ 75,497	$ 74,367	$ 67,608
Grand Total	$ 224,321	$ 208,816	$ 200,235	$ 184,887	$ 184,625	$ 183,146	$ 187,102	$ 180,376	$ 178,638	$ 145,264
Actual Contributions										
Employer	$ 127,902	$ 123,488	$ 120,416	$ 106,670	$ 107,434	$ 106,764	$ 106,143	$ 104,879	$ 104,271	$ 77,656
State	96,419	85,328	31,349	78,217	77,191	76,382	80,959	75,497	74,367	67,608
Grand Total	$ 224,321	$ 208,816	$ 151,765	$ 184,887	$ 184,625	$ 183,146	$ 187,102	$ 180,376	$ 178,638	$ 145,264
Contribution Deficiency / (Excess)	$ 0	$ 0	$ 48,470	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
% of Statutorily Required Contributed	100.00%	100.00%	75.79%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Covered Payroll	$ 4,140,446	$ 3,977,280	$ 3,876,491	$ 3,638,905	$ 3,569,262	$ 3,497,216	$ 3,455,660	$ 3,415,432	$ 3,390,539	$ 3,455,008
Actual Contributions as a Percentage of Covered Payroll	5.42%	5.25%	3.92%	5.08%	5.17%	5.24%	5.41%	5.28%	5.27%	4.20%

SCHEDULE OF EMPLOYER CONTRIBUTIONS
GASB 74 Paragraph 36(c)
($ in Thousands)

Life Insurance Trust										
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Actuarially Determined Employer Contribution	$ 3,311	$ 3,269	$ 2,736	$ 2,252	$ 1,843	$ 1,082	$ 1,075	$ 1,065	$ 1,058	$ 1,050
Contributions in relation to the Actually Determined Contribution	3,357	3,223	2,755	2,138	1,796	1,421	1,058	1,050	1,038	1,020
Annual contribution deficiency/(excess)	$ (46)	$ 46	$ (19)	$ 114	$ 47	$ (339)	$ 17	$ 15	$ 20	$ 30
Covered Payroll	$ 4,140,446	$ 3,977,280	$ 3,876,491	$ 3,638,905	$ 3,569,262	$ 3,497,216	$ 3,455,660	$ 3,415,432	$ 3,390,539	$ 3,455,008
Actual contributions as a percentage of covered payroll	0.08%	0.08%	0.07%	0.06%	0.05%	0.04%	0.03%	0.03%	0.03%	0.03%

Schedule B – Summary of Main Benefit Provisions

The Teachers' Retirement System of the State of Kentucky was established on July 1, 1940. The valuation took into account amendments to the system effective through June 30, 2023. The following summary describes the main benefit and contribution provisions of the system as interpreted for the valuation.

ELIGIBILITY FOR ACCESS TO RETIREE MEDICAL PLAN COVERAGE:

Service Retirement:

TRS 1 and TRS 2 Members	Completion of 27 years of service, or Attainment of age 55 and 5 years of service
TRS 3 Members	Completion of 27 years of service, or Attainment of age 55 and 10 years of service, or Attainment of age 60 and 5 years of service
TRS 4 Members	Attainment of age 57 and 10 years of service, or Attainment of age 65 and 5 years of service

For employees hired prior to July 1, 2008, Retiree Medical Plan coverage eligibility is attained when an employee retires, as described above. All other employees must be eligible to retire and additionally have completed a minimum of 15 years of service to be eligible for Retiree Medical Plan coverage.

Disability Retirement: Disabled employees hired prior to July 1, 2008 with at least 5 years of service, who are totally and permanently incapable of being employed as a teacher, are eligible for Retiree Medical Plan coverage upon approval for TRS disability retirement benefits. Disabled employees hired after July 1, 2008 must have 15 years of service to be eligible for Retiree Medical Plan coverage upon approval for TRS disability retirement benefits.

Members and dependents under age 65 and eligible for Medicare due to a disability after January 1, 2013 are only eligible to enroll in the MEHP. Under age 65 members who retired prior to January 1, 2013, are grandfathered from this requirement and allowed a choice of KEHP or MEHP coverage. Actual census data and current plan elections were used for current disabled retirees. All future disabled members under the age of 65 with Medicare are placed on the MEHP and not the KEHP. This has been consistently applied since 2013.

Survivors: Spouses of employees who die in service while eligible to retire, as well as survivors of service and disabled retirees, are eligible for Retiree Medical Plan coverage if elected within 30 days of the employee's/retiree's death with no future remarriage. Otherwise, survivor is not eligible for Retiree Medical Plan coverage.

Spousal Shared Risk Waiver for MEHP: Beginning in 2013, eligible spouses who waive the MEHP coverage will no longer have the opportunity to enroll during any annual MEHP open enrollment, so most spousal waivers on the MEHP are now permanent waivers unless a TRS specific qualifying event is met. This does not apply to the KEHP. This MEHP eligibility rule became necessary to mitigate spousal adverse selection with zero premium Medicare Advantage plans on the individual and open market.

Termination: For employees hired prior to July 1, 2008 and who terminated with at least 5 years of service, Retiree Medical Plan coverage is assumed to begin at age 60. For employees hired on or after July 1, 2008 and who terminated with at least 15 years of service, Retiree Medical Plan coverage is assumed to begin at age 60.

Reemployed Retirees: Effective January 1, 2019 and because of the Affordable Care Act (ACA) and Medicare secondary payer (MSP) federal rules, if a TRS retiree returns to work and is offered the same health insurance coverage as any full time employee (whether the KEHP, MEHP, or another plan), then the member must waive coverage through TRS. For valuation purposes, active employees identified as currently receiving retiree health care through the system are valued as retirees. Retirees making active contributions into a second account do not qualify for insurance on that second account.

COVERED MEMBER RETIREE MEDICAL PLAN CONTRIBUTIONS:

Under Age 65 Retiree Shared Responsibility Contribution: Effective July 1, 2010, retirees under the age of 65 began a three-year phase-in of the Shared Responsibility Contribution. This contribution reduces the applicable amount of the full contribution provided by the system to retirees, by adjusting the Shared Responsibility Contribution amount by 100% less the appropriate percentage from the Retiree Percentage Contribution table below. Effective July 1, 2012, the full Shared Responsibility Contribution equals the Standard Medicare Part B premium paid by retirees ages 65 and older.

Monthly Under Age 65 Shared Responsibility Contribution Timeline			
Effective Date	Medicare Part B Monthly Cost	Formula	Shared Responsibility Contribution
July 1, 2010	$110.50	(1/3 x $110.50)	$ 37.00
January 1, 2011	115.40	(1/3 x 115.40)	39.00
July 1, 2011	115.40	(2/3 x 115.40)	77.00
January 1, 2012	99.90	(2/3 x 99.90)	66.00
July 1, 2012	99.90	99.90	99.90
January 1, 2013	104.90	104.90	104.90
January 1, 2014	104.90	104.90	104.90
January 1, 2015	104.90	104.90	104.90
January 1, 2016	121.80	121.80	121.80
January 1, 2017	134.00	134.00	134.00
January 1, 2018	134.00	134.00	134.00
January 1, 2019	135.50	135.50	135.50
January 1, 2020	144.60	144.60	144.60
January 1, 2021	148.50	148.50	148.50
January 1, 2022	170.10	170.10	170.10
January 1, 2023	164.90	164.90	164.90
January 1, 2024	174.70	174.70	174.70

Retiree Years of Service Percentage Contribution: Retirees contribute the following percentages based on years of service at retirement, which are then applied to the Retiree Contribution Rate Basis:

Retiree Percentage Contribution*				
	TRS 1			
Year of Service	Age 65 or Older and Covered Before 1/1/2005	Age 65 After or Covered After 12/31/2004	TRS 2	TRS 3 & TRS 4
5 – 9.99	30%	75%	90%	Not Eligible
10 – 14.99	20	50	75	Not Eligible
15 – 19.99	10	25	55	55%
20 – 24.99	0	0	35	35
25 – 25.99	0	0	10	10
26 – 26.99	0	0	5	5
27 or more	0	0	0	0

** 0% for disabled retirees that retired prior to 1/1/2002*

COVERED MEMBER RETIREE MEDICAL PLAN CONTRIBUTIONS (CONTINUED):

For 2024, the TRS Board of Trustees approved a single contribution amount of up to $877.30 as well as an additional $8.00 per month paid to the Department of Employee Insurance (DEI) for participants on the Kentucky Employees' Health Plan (KEHP). TRS will contribute this amount towards insurance costs, less the Shared Responsibility cost of $174.70. Under-65 retirees who are not Medicare eligible and continue on the KEHP are responsible for the remaining costs left from the total premium costs. The total premium costs are shown below.

Monthly Full Costs Effective January 1, 2024				
	Under Age 65 (KEHP)*			
Tier Elected	LivingWell CDHP	LivingWell PPO	LivingWell Basic CDHP	Ages 65 and Older (MEHP)
Single	$930.76	$949.04	$901.04	$207.00
Parent Plus	1,269.28	1,320.40	1,234.80	n/a
Couple	1,866.24	1,981.62	1,863.04	n/a
Family	2,078.08	2,185.78	2,069.88	n/a
Family C-R	1,068.66	1,126.28	1,057.40	n/a

** Does not include the additional contribution required to be paid by retirees under the age of 65 who use tobacco ($40 for Single or Family Cross-Reference, and $80 for Parent Plus, Couple or Family). Also, this does not include the additional contribution required to be paid by retirees under the age of 65 who do not complete their LivingWell Promise, which is an additional $40 per month for all levels of coverage—single, parent +, couple, and family. For valuation purposes, it is conservatively assumed that, over time, 100% of KEHP retirees will complete their LivingWell Promise. This assumption will be monitored in future experience studies.*

Spouse Contributions**:** 100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State. Neither the State nor TRS will pay any subsidy for family style coverage.

Survivors: Spouses of employees who die in service while eligible to retire, as well as survivors of service and disabled retirees, are eligible for Retiree Medical Plan coverage if elected within 30 days of the employee's/retiree's death with no future remarriage. Otherwise, survivor is not eligible for Retiree Medical Plan coverage.

Spousal Shared Risk Waiver for MEHP**:** Beginning in 2013, eligible spouses who waive the MEHP coverage, will no longer have the opportunity to enroll during any annual MEHP open enrollment so most spousal waivers on the MEHP are now permanent waivers unless a TRS specific qualifying event is met. This does not apply to the KEHP. This MEHP eligibility rule became necessary to mitigate spousal adverse selection with zero premium Medicare Advantage plans on the individual and open market.

Monthly Surviving Spouse Contribution Effective January 1, 2024				
Tier Elected by Surviving Spouse	Under Age 65 (KEHP)			Ages 65 and Older (MEHP)
	LivingWell CDHP	LivingWell PPO	LivingWell Basic CDHP	
Single	$938.76	$957.04	$909.04	$207.00
Parent Plus	1,277.28	1,328.40	1,242.80	n/a

SYSTEM RETIREE MEDICAL PLAN CONTRIBUTIONS:

The System Contribution Rate Basis is determined annually by the system, and the full cost is projected based on historical claims data. For retirees, the following percentages are based on years of service at retirement and are then applied to the System Contribution Rate Basis:

Percentage of System Contribution Rate Provided to Retirees*				
Year of Service	TRS 1		TRS 2	TRS 3 & TRS 4
	Age 65 or Older and Covered Before 1/1/2005	Age 65 After or Covered After 12/31/2004		
5 – 9.99	70%	25%	10%	Not Eligible
10 – 14.99	80	50	25	Not Eligible
15 – 19.99	90	75	45	45%
20 – 24.99	100	100	65	65
25 – 25.99	100	100	90	90
26 – 26.99	100	100	95	95
27 or more	100	100	100	100

** 100% for disabled retirees that retired prior to 1/1/2002*

ACTIVE MEMBER RETIREE MEDICAL PLAN CONTRIBUTIONS:

Actively employed members make payroll contributions to the Health Insurance Trust based upon the following schedule:

Active Member Percentage of Payroll Contribution Made to Health Insurance Trust								
University Employees			School District Employees (Non-Federal)			Other Employees		
TRS 1 & TRS 2	TRS 3	TRS 4	TRS 1 & TRS 2	TRS 3	TRS 4	TRS 1 & TRS 2	TRS 3	TRS 4
2.775	2.775	2.775	3.750	3.750	3.750	3.750	3.750	3.750

LIFE INSURANCE PLAN BENEFITS:

(1) Effective July 1, 2000, the Teachers' Retirement System shall:

(a) Provide a life insurance benefit in a minimum amount of five thousand dollars ($5,000) for its members who are retired for service or disability if hired prior to January 1, 2022. Provide a life insurance benefit in a minimum amount of ten thousand dollars ($10,000) for its members who are retired for service or disability if hired on or after January 1, 2022. This life insurance benefit shall be payable upon the death of a member retired for service or disability to the member's estate or to a party designated by the member on a form prescribed by the retirement system; and

(b) Provide a life insurance benefit in a minimum amount of two thousand dollars ($2,000) for its active contributing members if hired prior to January 1, 2022. Provide a life insurance benefit in a minimum amount of five thousand dollars ($5,000) for its active contributing members if hired on or after January 1, 2022. This life insurance benefit shall be payable upon the death of an active contributing member to the member's estate or to a party designated by the member on a form prescribed by the retirement system.

Note: Members employed on a substitute or part-time basis and working at least 69% of a full contract year in a single fiscal year will be eligible for a life insurance benefit for the balance of the fiscal year or the immediately succeeding fiscal year under certain conditions. For non-vested members employed on a substitute or part-time basis, the life insurance benefit is provided if death occurs as the result of a physical injury on the job. For vested members employed on a substitute or part-time basis, death does not have to be the result of a physical injury on the job for life insurance benefits to be provided.

The rates of retirement, disability, mortality, termination, salary increases, and rates of future benefit participation used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2020, submitted to, and adopted by the Board on September 20, 2021. The health care cost trend rates and expected plan costs were determined by the actuary based on recent experience. The combined effect of the assumptions is expected to have no significant bias.

VALUATION DATE: June 30, 2023

DISCOUNT RATE: 7.10% per annum, compounded annually for the Health Insurance Trust
7.10% per annum, compounded annually for the Life Insurance Trust

HEALTH CARE COST TREND RATES: Following is a chart detailing health care trend assumptions.

Fiscal Year Ended	Medicare Part B	Medical
2024	5.92%	6.50%
2025	6.03	6.25
2026	6.71	6.00
2027	6.86	5.75
2028	6.78	5.50
2029	6.27	5.25
2030	5.82	5.00
2031	6.17	4.75
2032	5.61	4.50
2033	4.87	4.50
2034	4.62	4.50
2035 and Beyond	4.50	4.50

EXPECTED ANNUAL CLAIMS: For retirees, per capita costs are adjusted to reflect expected cost changes related to age. The relative value factors used were developed from the Society of Actuaries' June 2013 research report Health Care Costs—From Birth to Death by Dale Yamamoto and from the ASOP 6 practice note developed by the American Academy of Actuaries. Representative values of the expected annual claims for the KEHP plan are as follows:

Age	Male	Female
40	$ 5,806	$ 9,475
45	7,196	10,031
50	9,398	11,687
55	12,332	13,615
60	15,886	15,880
64	19,401	18,591

Representative values of the expected annual claims based on a blended 2024 MEHP rate of $207 per month, or $2,484 per year, are as follows:

Age	Male	Female
65	$1,709	$1,629
70	2,078	2,002
75	2,467	2,338
80	2,864	2,694
85	3,226	3,039
90	3,543	3,300

For the retiree health care liabilities of those under age 65, the current premium charged by the Kentucky Employees' Health Plan (KEHP) is used as the base cost and is projected forward using the health care trend assumption. No implicit rate subsidy is calculated or recognized as the implicit rate subsidy is deemed the responsibility of the KEHP. Under Actuarial Standard of Practice No. 6 (ASOP No. 6), aging subsidies (or implicit rate subsidies) should be recognized, as the differences in health care utilization and cost due to age have been demonstrated and well quantified.

The impact of aging on a valuation's results can be as significant as the use of mortality, trend, and discounting. It has been the long-standing position that the responsibility for compliance with GASB Statement No. 43, when it relates to KEHP implicit subsidies, rests with KEHP, not the system, as the system has no operational authority over KEHP. As such, KEHP implicit subsidies are excluded from the OPEB valuation process of the Retiree Medical Plan. As GASB 74 and 75 prohibit such a deviation from ASOP No. 6, additional consideration to the current treatment of KEHP implicit rate subsidies may be needed in the future. The estimated impact of KEHP implicit subsidies to the actuarial accrued liability is an increase of $1,417,620,773.

RETIREE MEDICAL PLAN COSTS: Assumed per capita health care costs were based on past experience and trended based on the assumptions. Following are charts detailing retiree per capita assumptions. These amounts include medical, drug, and administrative costs and represent the amount that the system pays as the full contribution amount. An additional $8.00 per month is paid to the Department of Employee Insurance (DEI) and is not included in the under age 65 costs listed below. For retirees, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

Monthly Under Age 65 KEHP Full Costs as of January 1, 2024			
Tier Elected	LivingWell CDHP	LivingWell PPO	LivingWell Basic CDHP
Single	$930.76	$949.04	$901.04
Parent Plus	$1,269.28	$1,320.40	$1,234.80
Couple	$1,866.24	$1,981.62	$1,863.04
Family	$2,078.08	$2,185.78	$2,069.88
Family C-R	$1,068.66	$1,126.28	$1,057.40

RETIREE MEDICAL PLAN CONTRIBUTION: The portion of the medical plan premiums paid by participants is composed of a Plan Option Cost, a Time-Specific Adjustment Cost and a Shared Responsibility Cost. Retirees under the age of 65 who do not complete their LivingWell Promise will be charged an additional $40 per month above the Plan Option Cost detailed below. An additional contribution is required to be paid by retirees under the age of 65 who use tobacco ($40 for Single or Family Cross-Reference, and $80 for Parent Plus, Couple or Family).

Monthly Under Age 65 KEHP Plan Option Costs as of January 1, 2024			
Tier Elected	LivingWell CDHP	LivingWell PPO	LivingWell Basic CDHP
Single	$53.46	$89.14	$28.34
Parent Plus	$137.06	$254.10	$67.52
Couple	$339.34	$571.76	$281.42
Family	$398.92	$716.64	$337.68
Family C-R*	$86.90	$170.48	$31.50
Spouse – Single	$938.76	$957.04	$909.04
Spouse – Parent Plus	$1,277.28	$1,328.40	$1,242.80

** Per employee/retiree*

TIME-SPECIFIC ADJUSTMENT PLUS SHARED RESPONSIBILITY COST: The chart below and on the page following are the Time-Specific Adjustment costs paid by Retirees in addition to the Plan Option Costs shown prior.

Abbreviations for Time-Specific Adjustment Charts:
LW CDHP = LivingWell CDHP
LW PPO = LivingWell PPO
LW Basic = LivingWell Basic CDHP

Time-Specific Adjustments for Retirees Employed Before July 1, 2002 as of January 1, 2024						
Plan	Years of Service	Single	Parent Plus	Couple	Family	Family C-R
LW CDHP	5 – 9.99	$701.65	$956.57	$1,351.25	$1,503.51	$806.11
	10 – 14.99	526.00	780.92	1,175.60	1,327.86	630.46
	15 – 19.99	350.35	605.27	999.95	1,152.21	454.81
	20 or More	174.70	429.62	824.30	976.56	279.16
LW PPO	5 – 9.99	$688.60	$890.65	$1,234.21	$1,293.49	$780.15
	10 – 14.99	517.30	715.00	1,058.56	1,117.84	604.50
	15 – 19.99	346.00	539.35	882.91	942.19	428.85
	20 or More	174.70	363.70	707.26	766.54	253.20
LW Basic	5 – 9.99	$698.20	$991.63	$1,405.97	$1,556.55	$850.25
	10 – 14.99	523.70	815.98	1,230.32	1,380.90	674.60
	15 – 19.99	349.20	640.33	1,054.67	1,205.25	498.95
	20 or More	174.70	464.68	879.02	1,029.60	323.30

Time-Specific Adjustments for Retirees Employed On/After July 1, 2002 as of January 1, 2024						
Plan	Years of Service	Single	Parent Plus	Couple	Family	Family C-R
LW CDHP	5 – 9.99	$807.04	$1,061.96	$1,456.64	$1,608.90	$911.50
	10 – 14.99	701.65	956.57	1,351.25	1,503.51	806.11
	15 – 19.99	561.13	816.05	1,210.73	1,362.99	665.59
	20 – 24.99	420.61	675.53	1,070.21	1,222.47	525.07
	25 – 25.99	244.96	499.88	894.56	1,046.82	349.42
	26 – 26.99	209.83	464.75	859.43	1,011.69	314.29
	27 or More	174.70	429.62	824.30	976.56	279.16
LW PPO	5 – 9.99	$791.38	$996.04	$1,339.60	$1,398.88	$885.54
	10 – 14.99	688.60	890.65	1,234.21	1,293.49	780.15
	15 – 19.99	551.56	750.13	1,093.69	1,152.97	639.63
	20 – 24.99	414.52	609.61	953.17	1,012.45	499.11
	25 – 25.99	243.22	433.96	777.52	836.80	323.46
	26 – 26.99	208.96	398.83	742.39	801.67	288.33
	27 or More	174.70	363.70	707.26	766.54	253.20
LW Basic	5 – 9.99	$802.90	$1,097.02	$1,511.36	$1,661.94	$955.64
	10 – 14.99	698.20	991.63	1,405.97	1,556.55	850.25
	15 – 19.99	558.60	851.11	1,265.45	1,416.03	709.73
	20 – 24.99	419.00	710.59	1,124.93	1,275.51	569.21
	25 – 25.99	244.50	534.94	949.28	1,099.86	393.56
	26 – 26.99	209.60	499.81	914.15	1,064.73	358.43
	27 or More	174.70	464.68	879.02	1,029.60	323.30

CURRENT RETIREE MEDICAL PLAN PARTICIPATION: Actual census data and current plan elections (including waivers) provided by the system were used for those retirees currently participating in the Retiree Medical Plan. Current participants are assumed to maintain their current Retiree Medical Plan coverage until they are no longer eligible.

ANTICIPATED RETIREE MEDICAL PLAN PARTICIPATION: The assumed annual rates of health care plan participation for future retirees are as follows:

Years of Service	Member Participation		
	TRS 1	TRS 2	TRS 3 & TRS 4
5 – 9.99	20%	20%	Not Eligible
10 – 14.99	40	20	Not Eligible
15 – 19.99	70	40	40%
20 – 24.99	90	50	50
25 – 25.99	90	80	80
26 – 26.99	90	85	85
27 or More	90	90	90

ANTICIPATED RETIREE MEDICAL PLAN ELECTIONS: The assumed rates of plan election for future retirees participating in the KEHP plans are provided in the following table. As the assumed plan election rates are estimates and actual results may be materially different, this assumption will need to be revised as experience evolves.

LivingWell CDHP	LivingWell PPO	LivingWell Basic CDHP
58%	39%	3%

SPOUSE COVERAGE IN RETIREE MEDICAL PLAN: Actual census data and current plan elections were used for MEHP and KEHP covered spouses (including beneficiaries) of current retirees. For spouses of future retirees, 30% of future male retirees are assumed to cover their spouse and 25% of future female retirees are assumed to cover their spouse. Male retirees are assumed to be three years older than their spouse and female retirees are assumed to be one year younger than their spouse.

DISABLED DEPENDENT CHILDREN IN RETIREE MEDICAL PLAN: The liability associated with disabled dependent children was determined to be de minimis and was therefore excluded from this valuation.

WITHDRAWAL ASSUMPTION: Future vested members who terminate employment prior to retirement are assumed to elect to withdraw their contributions based upon their age and service at termination of employment as follows:

Rates of Withdrawal Upon Termination of Employment			
Age at Termination of Employment	Years of Service		
	5 - 9	10 - 14	15+
Under Age 55	20%	15%	10%
Ages 55+	10%	10%	10%

All vested members who terminate employment prior to retirement are assumed to elect to withdraw their contributions prior to receiving a pension benefit based upon their service as follows:

Rates of Withdrawal Prior to Receiving a Pension Benefit			
Years of Service			
5 - 9	10 - 14	15 - 26	27+
25%	15%	10%	25%

All vested members who terminate employment prior to retirement and who are assumed to elect to receive a pension benefit are assumed to begin receiving their benefit at age 60.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include wage inflation at 2.75% per annum:

Service	Annual Rate
1	7.50%
2	5.50%
3	5.00%
4	5.00%
5	5.00%
6	4.75%
7	4.50%
8	4.25%
9	4.00%
10	4.00%
11	4.00%
12	3.75%
13	3.50%
14	3.50%
15	3.25%
16	3.25%
>=17	3.00%

PAYROLL GROWTH: 2.75% per annum, compounded annually.

PRICE INFLATION: 2.50% per annum, compounded annually.

FEDERAL LEGISLATION: The impacts of the Affordable Care Act (ACA) and the Inflation Reduction Act (IRA) were addressed in this valuation. Review of the information currently available did not identify any specific provisions of the legislation that are anticipated to directly impact results at this time other than plan design features and fees currently mandated by the ACA and incorporated in the plan designs, which are included in the current baseline claims costs, and the anticipation of potential changes to Medicare due to the IRA, which are included in our trend assumption. Continued monitoring of the impact on the Plan's liability due to this and other legislation, if applicable, will be required.

COVID-19: The impact of the COVID-19 pandemic was considered in this valuation; however, no changes were incorporated at this time due to the level of uncertainty regarding the impact on both plan costs and contribution levels going forward. Given the uncertainty regarding COVID- 19 (e.g., the impact of routine care being deferred, direct COVID-19 treatment and prevention costs, changes in contribution and budget projections), continued monitoring of the impact on the Plan's liability will be required.

ASSET VALUATION METHOD: Market Value of Assets.

SEPARATIONS FROM SERVICE: Representative values of the assumed annual rates of death, disability, and withdrawal, are as follows:

	Annual Rates for Males				
			Withdrawal		
			Years of Service		
Age	Death*	Disability	0 – 4	5 – 9	10+
20	0.030%	0.01%	20.00%		
25	0.017	0.01	11.00	3.25%	
30	0.024	0.01	10.00	3.60	2.80%
35	0.032	0.02	11.00	3.60	1.55
40	0.046	0.07	12.50	4.00	1.25
45	0.074	0.18	11.50	4.00	1.10
50	0.122	0.28	14.25	4.50	1.10
55	0.187	0.40	15.00	6.00	1.25
60	0.291	0.50	15.00	0.00	0.00
62	0.354	0.50	15.00	0.00	0.00
65	0.481	0.50	20.00	0.00	0.00
70	0.774	0.50	20.00	0.00	0.00
75	1.234	0.50	20.00	0.00	0.00

* *Base Rates*

	Annual Rates for Females				
			Withdrawal		
			Years of Service		
Age	Death*	Disability	0 – 4	5 – 9	10+
20	0.013%	0.01%	13.00%		
25	0.009	0.01	9.00	4.50%	
30	0.011	0.02	11.00	4.25	1.00%
35	0.017	0.06	11.00	3.50	1.60
40	0.026	0.10	12.50	4.00	1.20
45	0.040	0.24	13.50	4.00	1.00
50	0.062	0.38	15.00	4.50	1.25
55	0.090	0.50	15.00	5.00	1.60
60	0.132	0.60	17.50	0.00	0.00
62	0.158	0.62	17.50	0.00	0.00
65	0.213	0.65	25.00	0.00	0.00
70	0.372	0.65	25.00	0.00	0.00
75	0.696	0.65	25.00	0.00	0.00

* *Base Rates*

SEPARATIONS FROM SERVICE: Representative values of the assumed annual rates of retirement, are as follows:

Members Prior to January 1, 2022				
	Annual Rates for Males		Annual Rates for Females	
Age	Before 27 Years of Service	After 27 Years of Service*	Before 27 Years of Service	After 27 Years of Service**
45		17.0%		17.0%
50		25.0		20.0
55	5.25%	40.0	5.0%	50.0
60	13.50	33.0	15.0	40.0
62	15.00	30.0	15.0	40.0
65	20.00	30.0	25.0	40.0
70	25.00	30.0	30.0	35.0
75	100.00	100.0	100.0	100.0

** Plus 8.5% in year when first eligible for unreduced retirement with 27 years of service*
*** Plus 10.0% in year when first eligible for unreduced retirement with 27 years of service*

Members on and after January 1, 2022						
	Annual Rates for Males			Annual Rates for Females		
Age	Before 20 Years of Service	20-29 Years of Service	30 or More Years of Service*	Before 20 Years of Service	20-29 Years of Service	30 or More Years of Service*
57	3.0%	5.0%	25.0%	3.0%	5.0%	30.0%
60	8.5	13.5	25.0	10.0	15.0	30.0
62	12.0	15.0	25.0	12.0	15.0	30.0
65	20.0	20.0	25.0	25.0	25.0	30.0
70	25.0	25.0	25.0	30.0	30.0	30.0
75	100.0	100.0	100.0	100.0	100.0	100.0

** Plus 20.0% in the first year attaining 30 years of service; plus 25% at age 65 in the first year attaining 30 years of service*

DEATHS AFTER RETIREMENT: Mortality rates were based on the Pub2010 (Teachers Benefit-Weighted) Mortality table, projected generationally based on Projection Scale MP-2020, with various set-forwards, set-backs, and adjustments for each of the groups. Below is a summary of the specific mortality tables and adjustments for each of the groups:

Group	Membership Table	Set Forward (+)/ Setback (-)	Adjustment to Rates	Projection Scale
Service Retirees	Teachers Benefit-Weighted	Male: +2 Female: +2	Male: 102%, Female: 98%	75% of MP-2020
Contingent Annuitants	Teachers Benefit-Weighted	Male: +2 Female: None	Male: 101%, Female: 100%	75% of MP-2020
Disabled Retirees	Teachers Benefit-Weighted	Male: +1 Female: -2	Male: 96%, Female: 94%	75% of MP-2020
Actives	Teachers Benefit-Weighted	Male: +1 Female: -2	Male: 100%, Female: 98%	75% of MP-2020

Representative values of the assumed annual rates of death for service retirees, contingent annuitants, and disability retirees are shown below:

	Annual Base Rates of Death For					
	Service Retirees		Contingent Annuitants		Disability Retirees	
Age	Male	Female	Male	Female	Male	Female
45	0.0836%	0.0568%	0.6020%	0.2620%	1.0646%	0.7755%
50	0.1357	0.0843	0.7545	0.3200	1.6435	1.1910
55	0.2744	0.2215	0.8959	0.4460	2.1130	1.5416
60	0.4427	0.3322	1.1413	0.6220	2.4806	1.7616
65	0.7579	0.5351	1.6443	0.8990	3.0653	1.9834
70	1.4066	0.9682	2.5876	1.3530	3.9485	2.4149
75	2.6816	1.8649	4.1006	2.1510	5.3155	3.2562
80	5.0500	3.5819	6.5630	3.5730	7.6118	4.7705
85	9.4585	6.8071	10.7717	6.3160	11.2109	7.3423
90	16.9116	12.6077	17.7306	11.3290	16.9738	11.1653
95	26.9423	21.5110	26.8670	18.5900	24.2170	15.7356

** Base Rates.*

SCHEDULE D – ACTUARIAL COST METHOD

The valuations of the Health Trust and Life Trust are prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future investment rate of return. The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of the Health Trust and Life Trust are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member, if applicable, to meet the cost of all benefits payable on his behalf.

The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the Health Trust and Life Trust.

INTRODUCTION

Pursuant to the provisions of KRS 161.250, the Board of Trustees (board) of the Teachers' Retirement System of the State of Kentucky (TRS) is vested with the responsibility for the general administration and management of the retirement system. The board may adopt procedures necessary to conduct the business of the retirement system as needed. The applicable provisions of the Kentucky Revised Statutes shall control if any inconsistency exists between state law and this policy.

The board's policy is to achieve full funding within specific, closed 30-year periods without extending or resetting those periods. The underpinning of this is to request, as a minimum appropriation, amounts consistent with the annual actuarial valuations. The actuary focuses on a long investment horizon to promote cost stability, predictability and equity among current and future taxpayers. This policy, as detailed below for each trust, confirms the board's process for recommending annual appropriations payable and the primary actuarial assumptions and methodologies associated with calculating the annual appropriations. Other related actuarial assumptions and methodologies not listed in this policy are reported in annual valuations, the most recent experience study or resolutions adopted by the board.

Also, the board may provide options for funding the Retirement Annuity Trust that could accelerate the paying of its unfunded liability ahead of the amortization schedule and reduce costs for the state thereafter to the normal cost.

This policy is in keeping with the board's direction for the Investment Committee to continue investing for maximum returns within the parameters of prudent risk.

This policy will be reviewed regularly and amended or revised as necessary consistent with the advice of the board's independent actuary.

BACKGROUND

The level of benefits and funding for teachers' pension and health care are mandated in law by the General Assembly. Also, state law requires that the board, as fiduciary, adopt reasonable actuarial assumptions based upon the advice of a qualified independent actuary and other professionals. Additionally, state law mandates that actuarial assumptions be set using rigorous and transparent processes that adhere to recognized actuarial and financial standards. These processes reflect national best practices, including the Government Finance Officers Association's best practice guidelines for valuations, experience studies and actuarial audits.

TRS evaluates actuarial assumptions (demographic and economic) each year during the actuarial valuation. Several other regular reviews are conducted as well. The return assumptions are reviewed annually by the board's Investment Committee as it evaluates asset allocation. Every two years, the actuary conducts a review of economic assumptions and incorporates any changes into valuations. Every five years, the actuary conducts an experience investigation and recommends to the board adjustments to assumptions based upon past trends, current behavior and forecasted experience. TRS also conducts an actuarial audit (an audit of the actuary) at least every 10 years to ensure that assumptions are reasonable and appropriately reflect the cost of the plans. In the investment context, TRS conducts an asset liability modeling study at least every five years — and more often if material changes warrant an updated study. The annual valuation determines the additional required employer contribution that is included in TRS's biennial budget requests.

The amount that the state owes for benefits consists of two components, normal cost and amortization of unfunded liability. The normal cost is included in the statutory payroll contributions made by members, the state and employers. The amortization of the unfunded liability includes the balance of the statutory payroll contributions paid by the state and employers above amounts needed for the normal cost. In addition, TRS requests additional contributions necessary to amortize the unfunded liability. The funding for medical insurance is outlined by statute as a shared responsibility of employees, employers, retirees and the state.

State law requires, and the TRS board uses, a qualified independent actuary that follows the generally accepted actuarial standards of practice. Some factors considered by the actuary include the length of amortization periods; the projected pattern of cash flows; current and projected interest rates and rates of inflation; and historical and projected returns of the funds. The actuary focuses on a long investment horizon to promote cost stability, predictability and equity among current and future taxpayers.

1. Retirement Annuity Trust Appropriations

KRS 161.714 provides that the retirement benefits promised to members of TRS are "an inviolable contract of the Commonwealth." To satisfy this solemn commitment, the Commonwealth of Kentucky (state) is required to pay annual retirement appropriations necessary to fund the benefit requirements of retirement system members. All employers participating in TRS are responsible for paying the fixed employer contribution rate set forth in state law. However, the state – as plan guarantor – solely is responsible for paying the additional annual retirement appropriations necessary to keep the retirement system actuarially sound and able to satisfy the contract with members to provide promised benefits under KRS 161.550.

Beginning in 2019, the state made its full actuarially determined contribution. Prior to that, from fiscal year 2009 through 2018, the state did not pay the full annual retirement appropriations necessary to prefund the benefit requirements of members of the retirement system. Over this period, the state's annual retirement appropriations grew primarily because of the failure to fund.

Schedule E – Funding Policy

The board always has acted as required by state law and requested annual retirement appropriations payable by the state that would ensure that the state meets the contractual obligations to members.

Annual Retirement Appropriations Payable by the State

In each biennial budget request, the board will recommend annual retirement appropriations payable by the state to meet the benefit requirements of the members of the retirement system. The annual retirement appropriations payable by the state are the sum of the fixed employer contribution rate set by state law and the additional annual retirement appropriations necessary to fund the benefit requirements of members of the retirement system (KRS 161.550). The recommended additional annual retirement appropriations payable by the state are calculated by the board's actuary based upon the results of an annual valuation preceding the beginning of each biennium (KRS 161.400).

Calculation of Annual Retirement Appropriations Payable by the State

The board will present the actuarially determined annual retirement appropriations payable by the state, which if paid, are the minimum to meet the benefit requirements of the members of the retirement system, consistent with generally accepted actuarial principles. Based upon technical advice from the board's actuary, the board hereby adopts the following principles for calculating the recommended annual retirement appropriations payable by the state:

A. Use the Entry Age Normal actuarial cost method;
B. Use a five-year asset smoothing method;
C. Use a 30-year closed period that began fiscal year 2014 to amortize the unfunded liability. This is calculated by the actuary as the minimum dollar amount for the state to pay each year, and the amount to be provided by the state shall not be less than the prior year's dollar amount until the plan reaches a funded ratio of 100%;
D. Use a 20-year closed period to amortize new sources of unfunded liability (new sources of unfunded liability are the unfunded liability consisting of all benefit changes, assumption and method changes and experience gains and or losses that have occurred since the previous valuation); and
E. Reach a minimum funded ratio of 100% within the closed period adopted by the board.

Accelerated Funding Options

In recognition that the state may want to pay off the unfunded liability earlier than the closed amortization period and thereby reduce its costs long-term, the board may provide options for funding over and above the actuarially required minimum. The board will provide the analytical data showing the impact of each of these on the current costs and the potential savings.

2. <u>Retiree Health Insurance Trust</u>

State law provides for a retiree medical plan (KRS 161.675). Since July 1, 2010, retired teachers, active teachers, local school boards, universities and the state have paid contributions for funding the retiree medical plan in accordance with the Shared Responsibility Solution contained in HB 540 (2010 RS). The contributions mandated by Shared Responsibility will meet the benefit requirements of the members of the retirement system, consistent with generally accepted actuarial principles.

Projections of longer term funded status assume both the continuation of current revenue sources beyond state or TRS control and that costs remain in line with assumptions. Regulatory, legislative and other changes, which cannot be predicted and could be severe, would alter the actual future experience. Examples include changes in the solvency of Medicare; in the Inflation Reduction Act, Affordable Care Act or other federal legislation; in Medicare Advantage premiums; and in prescription medication subsidies, rebates or discounts.

Based upon technical advice from the board's actuary, the board hereby adopts the following principles concerning the retiree health insurance plan:

A. Use the Entry Age Normal actuarial cost method;
B. Use a five-year asset smoothing method;
C. Use a 30-year closed period that began fiscal year 2011 to amortize the unfunded liability;
D. Reach a minimum funded ratio of 100% within the closed period adopted by the board; and
E. For projecting future funded ratios, the same assumptions shall be used including income received from all current sources. Also, a separate schedule in the valuation will address the risk of trust income disruption if income sources beyond the control of the state and TRS – such as prescription medication rebates and subsidies – are eliminated. For that projection, income from sources other than those mandated by Shared Responsibility (from active members, retirees, employers and the state) shall not be used when calculating the funded ratios.

3. <u>Life Insurance Trust</u>

State law provides for a life insurance plan for active and retired teachers (KRS 161.655). The life insurance plan is funded by employer contributions. Based upon technical advice from the board's actuary, the board hereby adopts the following principles concerning the life insurance plan:

A. Use the Entry Age Normal actuarial cost method;
B. Use a five-year asset smoothing method;
C. Use a 30-year closed period that began fiscal year 2014 to amortize the unfunded liability;
D. Use a 20-year closed period to amortize, as a level percentage of pay, new sources of unfunded liability (new sources of unfunded liability are the unfunded liability consisting of all benefit changes, assumption and method changes and experience gains and or losses that have occurred since the previous valuation); and
E. Reach a minimum funded ratio of 100% within the closed period adopted by the board.

Adopted December 16, 2013; amended December 9, 2015, September 19, 2016, September 18, 2017, December 18, 2017, September 16, 2019, September 21, 2020; December 18, 2023.