TEACHERS' RETIREMENT SYSTEM
of the State of Kentucky

GARY L. HARBIN, CPA
Executive Secretary

ROBERT B. BARNES, JD
Deputy Executive Secretary
Operations and General Counsel

J. ERIC WAMPLER, JD
Deputy Executive Secretary
Finance and Administration

March 16, 2021

Katie Carney
Office of Special Projects
Legislative Research Commission
Capitol Annex, Room 39 Frankfort,
KY 40601

RE: HB 258 SCS 1

AA Statement 1 of 1

Dear Ms. Carney:

This is an updated actuarial analysis summary for HB 258 SCS 1. The full actuarial analysis from the actuary will follow tomorrow. Additionally, another updated actuarial analysis will be forthcoming later to reflect the further changes in the SFA 1 version.

Please let me know if you have any questions regarding this analysis.

Sincerely,

RBBarnes

Robert B. Barnes
Deputy Executive Secretary of Operations and
General Counsel

cc. Mariah Derringer-Lackey

479 Versailles Road • Frankfort, Kentucky 40601-3800
800-618-1687 • https://trs.ky.gov

Actuarial Analysis Summary –

BR or Bill Ref.	21RS HB 258/SCS	**Actuarial Analysis Conducted For:**	
Date:	3/16/2021	☐ KERS NH ☐ KERS Haz ☐ SPRS ☒ TRS	
Actuary:	Cavanaugh Macdonald	☐ CERS NH ☐ CERS Haz ☐ LRP ☐ JRP	

Section I: Executive Summary

In the opinion of the actuary, this bill would make the affected state-administered retirement system(s) actuarially:

☐ **MORE SOUND** ☐ **LESS SOUND** ☐ **NO IMPACT SEE EXPLANATION**

If actuarially MORE SOUND OR LESS SOUND, please summarize the factors leading to the actuary's opinion:

This bill introduces a new tier of benefits that significantly decreases employer costs during the projection period. As actuarially required contributions are made, the legacy plan will be more actuarially sound. At the same time, there is no impact on any current benefits or participation for any current member of TRS. The legacy liability for current members is scheduled to be paid off in 24 years. The new tier cost will be a fixed contribution rate for the state. Risk controls will manage funding levels for new members. Employer contributions above the requirements for the stabilization reserve account would be available toward the legacy unfunded liability.

Does this bill increase or decrease employer costs? ☐ **INCREASE** ☒ **DECREASE** ☐ **NO IMPACT**

Does this bill increase or decrease benefits? ☐ **INCREASE** ☐ **DECREASE** ☒ **NO IMPACT**

Does this bill increase or decrease benefit participation? ☐ **INCREASE** ☐ **DECREASE** ☒ **NO IMPACT**

If the bill impacts employer costs, benefits, or benefit participation, please explain and estimate the impact in Sections II and VI.

Section II: Financial Projections

	Combined Pension and Retiree Health Plan					
	Plan 1*		**Plan 2***		**Plan 3***	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected Employer Cost*						
30-Yr Nominal $	$53.5B	$49.9B**	$	$	$	$
30-Yr Net Present Value $	$20.5B	$19.5B	$	$	$	$
Proj. Normal Cost for New Hire (Pension Only)	4.94% of pay	2.41% of pay	% of pay	% of pay	% of pay	% of pay

** Projected costs are for all employers and all fund sources for entire 30-year period. Projected normal cost is the normal cost for new hires after taking into account employee contributions.*

*** Of the $3.5B in savings, it is estimated that $1.15B of this would be used to cover the stabilization fund at a 110% funding level.*

	Pension Plan					
	Ret Annuity Trust*		**Plan 2***		**Plan 3***	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected UAL ($)						
Baseline (Year 1)	$14.8B	$14.8B	$	$	$	$
5 Years	$15.5B	$15.5B	$	$	$	$
10 Years	$15.7B	$15.7B	$	$	$	$
20 Years	$10.5B	$10.5B	$	$	$	$
30 Years	$0.0B	$0.0B	$	$	$	$
Projected Funding Ratio (%)						
Baseline (Year 1)	58.4%	58.4%	%	%	%	%
5 Years	60.1%	60.1%	%	%	%	%
10 Years	63.2%	63.1%	%	%	%	%
20 Years	78.9%	78.8%	%	%	%	%
30 Years	100.0%	100.0%	%	%	%	%
	Retiree Health Plan					
	Health Ins Trust*		**Life Ins Trust***		**Plan 3***	
	Current	Proposed	Current	Proposed	Current	Proposed
Projected UAL ($)						
Baseline (Year 1)	$1057M	$1057M	$30M	$30M	$	$
5 Years	$209M	$205M	$37M	$37M	$	$
10 Years	$0M	$0M	$37M	$37M	$	$
20 Years	$0M	$0M	$23M	$23M	$	$
30 Years	$0M	$0M	$0M	$0M	$	$
Projected Funding Ratio (%)						
Baseline (Year 1)	61.7%	61.7%	75.5%	75.5%	%	%
5 Years	93.8%	93.9%	72.4%	72.5%	%	%
10 Years	100.0%	100.0%	74.7%	75.1%	%	%
20 Years	100.0%	100.0%	85.6%	86.7%	%	%
30 Years	100.0%	100.0%	100.0%	100.0%	%	%

* if necessary or plan administers more than one plan/system.

Section III: Brief Summary of Bill

Creates a new retirement benefit tier for members of TRS hired on or after January 1, 2022.

Section IV: Statement of Assumptions and Methods

Did the analysis rely solely upon the same assumptions & methods previously established and utilized by the actuary in the retirement system's most recent ☐ **YES** ☒ **NO** actuarial valuation?

If NO, please describe each new assumption or method utilized, the basis for selecting the revised assumption or method, and whether each new assumption or method increased or decreased projected employer costs:

Actuarial assumptions were modified to match retirement eligibility of the new tier structure. The amortization method for the unfunded accrued liability for the new tier would be changed to a level dollar basis.

Section V: Comment from Actuary

The actuarial analysis results letter that is attached should be reviewed as well as it provides the detailed information regarding the actuarial impact of this legislation.

Section VI: Detailed Actuarial Analysis and Projections *(May be attached as Appendix)*

Attached is the actuarial analysis results letter.

Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve

March 16, 2021

Mr. Robert B. Barnes
Deputy Executive Secretary
and General Counsel
Kentucky Teachers'
Retirement System
479 Versailles Road
Frankfort, KY 40601-3800

Actuarial Impact – 21 RS HB 258/SCS1

Dear Beau:

We have prepared an actuarial analysis of the impact of 21 RS HB 258/SCS1 (HB 258/SCS1) on the Teachers' Retirement System of the State of Kentucky (TRS). HB 258/SCS1 creates a new benefit structure for active members hired on or after January 1, 2022 and changes actuarial funding, participation requirements and actuarial assumptions. The major provisions of HB 258/SCS1 are summarized below, and the estimated cost impacts are provided in the attachedExhibits.

Section I - Benefit Provisions for New Members on or after January 1, 2022

All new members hired on or after January 1, 2022 will accrue retirement benefits under afoundational benefit plan and a supplemental benefit plan within TRS.

The following are the major provisions of the foundational benefit plan:

- Retirement eligibility of age 57 with 10 years of service or age 65 age 60, not to exceed a total of 1.90% of final average salary at age 65 or greater, applied to all years of service, plus

- An additional one-quarter of one percent if service is at least 20 years but less than 30 years, or an additional one-half of one percent if service is 30 or more years, applied to all years of service.
- Benefits are reduced six percent for each year that age is less than 60 or for each year that service is less than 30 years.

- For university members, benefit formula of 0.70% of final average salary at age 57, increasing incrementally each month from age 60, not to exceed a total of 0.90% of final average salary at age 65 or greater, applied to all years of service, plus
- An additional one-quarter of one percent if service is at least 20 years but less than 30 years, or an additional one-half of one percent if service is 30 or more years, applied to all years of service.
- Benefits are reduced six percent for each year that age is less than 60 or for each year that service is less than 30 years.
- Contributions for members with less than 5 years of service earn interest based on a rolling 5-year yield on a 30-year United States Treasury Bond and contributions for members with more than 5 years of service earn 2.50% annually.
- Some disability and death benefits will continue to new members hired on or after January 1, 2022 in a similar manner as current members.
- Life Insurance benefits of $10,000 for death after retirement and $5,000 for death in active service.
- If the funding levels of the foundational benefit plan fall below 90%, the Board shall make changes prospectively to any or all the preceding provisions. Benefits earned are protected by inviolable contract.

The retirement benefit determined under the supplemental plan will be based upon a member's accumulated account balance calculated as follows:

- Members shall contribute 2.0% of monthly salary.
- Employer shall contribute 2.0% of monthly salary.
- Regular interest will be added annually as of June 30 to the contributing member's accumulated account balance. Regular interest is defined as the yield on a 5-year rolling 30-year United States Treasury Bond.
- Once a member meets the eligibility requirements, the member may elect to retire and receive a monthly lifetime retirement allowance by annuitizing the accumulated account balance based on the actuarial assumptions and methods adopted by the TRS Board in effect on the member's retirement date.
- The member may elect to receive an actuarial equivalent benefit under one of the optional forms of payment as established by the TRS Board,
- Or the member may instead take a refund of the accumulated account balance or take a distribution over a period certain.
- Upon termination of employment with less than five years of service, the member shall forfeit the accumulated employer contributions and interest and shall only receive a refund of his or her accumulated contributions with regular interest.
- Upon termination of employment with five or more years of service, the member shall receive a full refund of his or her accumulated account balance.
- If the funding level of the foundational benefit falls below 90%, the Board shall make adjustments, which could include prospective mandatory supplemental contributions to provide funding for the foundational benefit component.

For new members after January 1, 2022, sick leave lump sum payouts will not be allowed to be used for retirement purposes.

Section II - Contribution Requirements

Employee Contribution Rates

Active members will contribute a percentage of salary for the foundational, supplemental and retiree health plans. The table below shows the contribution requirements:

Item	Non-University Member Rate	University Member Rate
Foundational	9.000%	5.000%
Supplemental	2.000	2.000
Retiree Health	3.750	2.775
Total	14.750%	9.775%

Employer Contributions

Non-university employers will pay a fixed base statutory contribution rate of 10.75% of pay and University employers will pay a fixed statutory contribution rate of 9.775% to fund the foundational, supplemental and retiree health benefits. The table below shows the statutory contribution rates. In addition, 3% of pay will be paid by local school district and other agency employers to fund retiree health care benefits.

Item	Non-University Employer Rate	University Employer Rate
Foundational	8.000%	5.775%
Supplemental	2.000%	2.000%
Retiree Health	0.750%	2.000%
Total	10.750%	9.775%

Section III - Actuarial Funding

An employer stabilization reserve account is established that shall consist of the amounts of employer contributions that exceed the combined actuarially required employer contribution for the foundational benefit component and the mandatory employer contribution to the supplemental benefit component. The funds in this account may only be used to pay off the unfunded liability of the pension and life insurance funds.

Section IV - Actuarial Assumptions

The projections for the proposed legislation use the June 30, 2020 actuarial valuation of TRS as a baseline. Below are additional or alternative actuarial assumptions that are used in the determination of this legislation:

- We have assumed a Regular Interest assumption of 2.5%.
- We have assumed that the actuarially determined employer contribution (ADEC) will be made for each year of the projection. Since the statutory contribution rates for the new plan along with the current statutory contribution rates and required increase for existing members may not be sufficient to pay the full ADEC, the required increase in the ADEC may increase under this legislation. However, the total dollar amount of expected future ADEC contributions will be less.
- We have assumed that the stabilization reserve account will maintain a 100% funded ratio, and any excess contributions would go to help pay down the legacy Unfunded Accrued Liability
- We have revised assumed retirement rates for members of the new plan structure based on the new retirement eligibility requirements. Actual retirement patterns occurring in the future that are different from those assumed, will impact the ultimate cost of HB 258/SCS1. In addition, other assumptions, such as rates of termination and disability that were determined based on actual experience under the current plan would likely change under HB 258/SCS1 further impacting the ultimate cost of disability significantly.

Section V - Conclusion

As shown in Exhibit 5, there is a savings under HB 258/SCS1 due to the decrease in benefits for new active members totaling approximately $3.58 Billion over the 30-year projection period for all three plans under TRS. There is a savings for the Retirement Annuity Trust and the Retiree Health Trust but a cost for the Life Insurance Trust.

Projections are designed to identify anticipated trends rather than predicting some future state of events. The projections are based on TRS' estimated financial status on June 30, 2020, and project future events using one set of assumptions out of a range of many possibilities. The projections do not predict TRS' financial condition or its ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the Plans. Over time, a benefit plan's total cost will depend on a number of factors, including the amount of benefits paid, the number of people paid benefits, the duration of the benefit payments, plan expenses, and the amount of earnings on assets invested to pay benefits. These amounts and other variables are uncertain at the time the projections were made. Because actual experience will not unfold exactly as expected, actual results can be expected to differ from the projections. To the extent that actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse that indicated in this study.

The undersigned, Edward J. Koebel and Alisa Bennett, are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Edward J. Koebel

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

Alisa Bennett

Alisa Bennett, FSA, EA, FCA, MAAA
President

Cathy Turcot

Cathy Turcot
Principal and Managing Director

S:/2021/Kentucky Teachers/Correspondence/Actuarial Impact – House Bill 258 – 21 HB 258/SCS1

Exhibit 1

Current Funding Status for the Retirement Annuity Trust*

($ in thousands)

Fiscal Year	Non-University Payroll (1)	University Payroll (2)	Total Payroll (3)	Unfunded Accrued Liability of Retirement Annuity Trust (4)	Funding Ratio of Retirement Annuity Trust (5)	Actuarially Determined Contribution in Dollars for Retirement Annuity Trust (6)
FY 2022-23	$3,716,763	$188,454	$3,905,217	$14,785,756	58.4%	$1,210,385
FY 2023-24	3,810,973	188,452	3,999,425	14,650,560	59.6%	1,229,553
FY 2024-25	3,907,520	189,788	4,097,308	14,877,747	59.9%	1,278,091
FY 2025-26	4,003,397	191,807	4,195,204	15,210,791	59.9%	1,338,585
FY 2026-27	4,098,744	194,531	4,293,275	15,467,177	60.1%	1,395,827
FY 2027-28	4,194,908	198,021	4,392,929	15,617,027	60.5%	1,449,944
FY 2028-29	4,295,997	201,887	4,497,884	15,721,663	61.0%	1,507,464
FY 2029-30	4,400,886	205,828	4,606,714	15,778,267	61.7%	1,566,858
FY 2030-31	4,509,648	210,000	4,719,648	15,786,666	62.4%	1,627,370
FY 2031-32	4,623,125	214,241	4,837,366	15,742,286	63.2%	1,692,458
FY 2032-33	4,741,595	218,364	4,959,959	15,638,654	64.0%	1,758,709
FY 2033-34	4,863,604	223,292	5,086,896	15,467,326	65.0%	1,826,947
FY 2034-35	4,993,467	227,687	5,221,154	15,223,595	66.1%	1,899,024
FY 2035-36	5,129,751	232,104	5,361,855	14,894,761	67.4%	1,973,468
FY 2036-37	5,273,440	237,377	5,510,817	14,474,653	68.8%	2,051,322
FY 2037-38	5,425,178	242,986	5,668,164	13,950,121	70.4%	2,186,112
FY 2038-39	5,585,919	249,262	5,835,181	13,311,620	72.1%	2,223,629
FY 2039-40	5,755,718	255,985	6,011,703	12,548,475	74.1%	2,376,657
FY 2040-41	5,935,708	263,325	6,199,033	11,592,219	76.4%	2,500,570
FY 2041-42	6,125,444	270,819	6,396,263	10,529,322	78.9%	2,596,353
FY 2042-43	6,324,432	278,580	6,603,012	9,233,427	81.7%	2,680,774
FY 2043-44	6,534,578	286,955	6,821,533	7,721,341	84.9%	2,822,948
FY 2044-45	6,755,354	296,159	7,051,513	6,002,621	88.4%	2,913,425
FY 2045-46	6,987,972	305,559	7,293,531	4,076,423	92.3%	2,985,920
FY 2046-47	7,231,088	315,559	7,546,647	1,866,252	96.5%	652,592
FY 2047-48	7,488,221	326,110	7,814,331	0	100.0%	471,973
FY 2048-49	7,765,859	336,732	8,102,591	0	100.0%	267,739
FY 2049-50	8,045,588	347,983	8,393,571	0	100.0%	226,621
FY 2050-51	8,334,558	359,725	8,694,283	0	100.0%	214,993
FY 2051-52	8,633,447	371,854	9,005,301	0	100.0%	202,359

* Totals may not add due to rounding.

Exhibit 2

Funding Requirements under HB 258/SCS1 and Comparison to Current Retirement Annuity Trust*($ in thousands)

Fiscal Year	Unfunded Accrued Liability under HB 258/SCS1 (7)	HB 258/SCS1 Funding Ratio (8)	Total Employer Contribution for Proposed Bill (9)	Total Employer Contribution for Current Retirement Annuity Trust (10)=(6)	Cost/(Savings) in Retirement Annuity Trust due to HB 258/SCS1 (11)=(9)-(10)
FY 2022-23	$14,785,756	58.4%	$1,210,385	$1,210,385	$0
FY 2023-24	14,650,549	59.6%	1,229,553	1,229,553	0
FY 2024-25	14,876,293	59.9%	1,272,633	1,278,091	(5,458)
FY 2025-26	15,206,471	59.9%	1,327,786	1,338,585	(10,799)
FY 2026-27	15,460,406	60.1%	1,379,728	1,395,827	(16,099)
FY 2027-28	15,608,254	60.5%	1,428,739	1,449,944	(21,205)
FY 2028-29	15,709,300	61.0%	1,481,223	1,507,464	(26,241)
FY 2029-30	15,762,204	61.7%	1,535,412	1,566,858	(31,446)
FY 2030-31	15,766,596	62.4%	1,590,515	1,627,370	(36,855)
FY 2031-32	15,718,459	63.1%	1,650,076	1,692,458	(42,382)
FY 2032-33	15,610,910	64.0%	1,710,599	1,758,709	(48,110)
FY 2033-34	15,436,137	65.0%	1,772,843	1,826,947	(54,104)
FY 2034-35	15,189,276	66.1%	1,838,732	1,899,024	(60,292)
FY 2035-36	14,857,531	67.4%	1,906,624	1,973,468	(66,844)
FY 2036-37	14,434,663	68.7%	1,977,547	2,051,322	(73,775)
FY 2037-38	13,907,418	70.3%	2,105,088	2,186,112	(81,024)
FY 2038-39	13,266,714	72.1%	2,134,946	2,223,629	(88,683)
FY 2039-40	12,501,590	74.0%	2,279,988	2,376,657	(96,669)
FY 2040-41	11,544,194	76.3%	2,395,498	2,500,570	(105,072)
FY 2041-42	10,480,238	78.8%	2,482,512	2,596,353	(113,841)
FY 2042-43	9,183,535	81.7%	2,557,833	2,680,774	(122,941)
FY 2043-44	7,672,902	84.9%	2,690,461	2,822,948	(132,487)
FY 2044-45	5,956,267	88.4%	2,771,141	2,913,425	(142,284)
FY 2045-46	4,034,969	92.3%	2,833,669	2,985,920	(152,251)
FY 2046-47	1,830,387	96.5%	490,470	652,592	(162,122)
FY 2047-48	0	100.0%	299,866	471,973	(172,107)
FY 2048-49	0	100.0%	85,019	267,739	(182,720)
FY 2049-50	0	100.0%	32,963	226,621	(193,658)
FY 2050-51	0	100.0%	10,453	214,993	(204,540)
FY 2051-52	0	100.0%	0	202,359	(202,359)

* Totals may not add due to rounding.

Exhibit 3

Teachers' Retirement System of the State of Kentucky

Funding Requirements under HB 258/SCS1 and Comparison to Current Retiree Health Trust*($ in thousands)

Fiscal Year	Unfunded Accrued Liability under HB 258/SCS1 (12)	HB 258/SCS1 Funding Ratio (13)	Total Employer Contribution for Proposed Bill (14)	Total Employer Contribution for Current Retiree Health Trust (15)	Cost/(Savings) in Retiree Health Trust due to HB 258/SCS1 (16)=(14)-(15)
FY 2022-23	$1,056,685	61.7%	$114,135	$115,392	$(1,257)
FY 2023-24	882,252	69.6%	100,265	102,908	(2,643)
FY 2024-25	689,384	77.4%	82,129	86,308	(4,179)
FY 2025-26	465,242	85.5%	67,130	72,271	(5,141)
FY 2026-27	204,596	93.9%	69,305	75,791	(6,486)
FY 2027-28	0	100.0%	71,557	79,400	(7,843)
FY 2028-29	0	100.0%	73,888	83,189	(9,301)
FY 2029-30	0	100.0%	76,350	87,224	(10,874)
FY 2030-31	0	100.0%	78,961	91,509	(12,548)
FY 2031-32	0	100.0%	81,671	96,000	(14,329)
FY 2032-33	0	100.0%	84,524	100,739	(16,215)
FY 2033-34	0	100.0%	87,484	105,730	(18,246)
FY 2034-35	0	100.0%	90,619	111,031	(20,412)
FY 2035-36	0	100.0%	93,932	116,639	(22,707)
FY 2036-37	0	100.0%	97,418	122,556	(25,138)
FY 2037-38	0	100.0%	101,113	128,831	(27,718)
FY 2038-39	0	100.0%	104,991	135,444	(30,453)
FY 2039-40	0	100.0%	109,096	142,455	(33,359)
FY 2040-41	0	100.0%	113,458	149,871	(36,413)
FY 2041-42	0	100.0%	118,058	157,705	(39,647)
FY 2042-43	0	100.0%	122,848	165,917	(43,069)
FY 2043-44	0	100.0%	127,889	174,539	(46,650)
FY 2044-45	0	100.0%	133,180	183,604	(50,424)
FY 2045-46	0	100.0%	138,769	193,143	(54,374)
FY 2046-47	0	100.0%	144,645	203,170	(58,525)
FY 2047-48	0	100.0%	150,856	213,730	(62,874)
FY 2048-49	0	100.0%	157,754	225,050	(67,296)
FY 2049-50	0	100.0%	164,465	236,640	(72,175)
FY 2050-51	0	100.0%	172,178	248,774	(76,596)
FY 2051-52	0	100.0%	180,517	261,514	(80,997)

* Totals may not add due to rounding.

Exhibit 4

Teachers' Retirement System of the State of Kentucky

Funding Requirements under HB 258/SCS1 and Comparison to Current Life Insurance Trust*($ in thousands)

Fiscal Year	Unfunded Accrued Liability under HB 258/SCS1 (17)	HB 258/SCS1 Funding Ratio (18)	Total Employer Contribution for Proposed Bill (19)	Total Employer Contribution for Current Life Insurance Trust (20)	Cost/(Savings) in Life Insurance Trust due to HB 258/SCS1 (21)=(19)-(20)
FY 2022-23	$29,965	75.5%	$3,065	$3,065	$0
FY 2023-24	33,396	73.3%	3,343	3,343	0
FY 2024-25	35,455	72.3%	3,649	3,552	97
FY 2025-26	36,297	72.3%	3,876	3,691	185
FY 2026-27	36,812	72.5%	4,082	3,818	264
FY 2027-28	37,007	72.9%	4,269	3,933	336
FY 2028-29	37,113	73.4%	4,456	4,053	403
FY 2029-30	37,118	73.9%	4,642	4,179	463
FY 2030-31	37,009	74.5%	4,833	4,308	525
FY 2031-32	36,771	75.1%	5,030	4,443	587
FY 2032-33	36,389	75.8%	5,230	4,583	647
FY 2033-34	35,845	76.5%	5,433	4,729	704
FY 2034-35	35,120	77.4%	5,642	4,883	759
FY 2035-36	34,192	78.3%	5,857	5,043	814
FY 2036-37	33,038	79.4%	6,079	5,212	867
FY 2037-38	31,632	80.6%	6,306	5,389	917
FY 2038-39	29,942	81.9%	6,541	5,576	965
FY 2039-40	27,937	83.3%	6,788	5,776	1,012
FY 2040-41	25,577	84.9%	7,047	5,989	1,058
FY 2041-42	22,819	86.7%	7,324	6,221	1,103
FY 2042-43	19,611	88.8%	7,627	6,479	1,148
FY 2043-44	15,887	91.0%	7,972	6,776	1,196
FY 2044-45	11,565	93.6%	8,398	7,146	1,252
FY 2045-46	6,514	96.4%	9,048	7,719	1,329
FY 2046-47	444	99.8%	3,005	1,768	1,237
FY 2047-48	221	99.9%	2,806	1,551	1,255
FY 2048-49	218	99.9%	2,826	1,549	1,277
FY 2049-50	223	99.9%	2,853	1,555	1,298
FY 2050-51	228	99.9%	2,875	1,561	1,314
FY 2051-52	233	99.9%	2,901	1,567	1,334

* Totals may not add due to rounding.

Exhibit 5

Teachers' Retirement System of the State of Kentucky
Total Savings to All Trusts under HB 258/SCS1*
($ in thousands)

Fiscal Year	Cost/(Savings) in Retirement Annuity Trust due to HB 258/SCS1 (22)=(11)	Cost/(Savings) in Retiree Health Trust due to HB 258/SCS1 (23)=(16)	Cost/(Savings) in Life Insurance Trust due to HB 258/SCS1 (24)=(21)	Cost/(Savings) in Total due to HB 258/SCS1 (25)=(22)+(23)+(24)
FY 2022-23	$0	$(1,257)	$0	(1,257)
FY 2023-24	0	(2,643)	0	(2,644)
FY 2024-25	(5,458)	(4,179)	97	(9,540)
FY 2025-26	(10,799)	(5,141)	185	(15,755)
FY 2026-27	(16,099)	(6,486)	264	(22,321)
FY 2027-28	(21,205)	(7,843)	336	(28,712)
FY 2028-29	(26,241)	(9,301)	403	(35,139)
FY 2029-30	(31,446)	(10,874)	463	(41,857)
FY 2030-31	(36,855)	(12,548)	525	(48,878)
FY 2031-32	(42,382)	(14,329)	587	(56,124)
FY 2032-33	(48,110)	(16,215)	647	(63,678)
FY 2033-34	(54,104)	(18,246)	704	(71,646)
FY 2034-35	(60,292)	(20,412)	759	(79,945)
FY 2035-36	(66,844)	(22,707)	814	(88,737)
FY 2036-37	(73,775)	(25,138)	867	(98,046)
FY 2037-38	(81,024)	(27,718)	917	(107,825)
FY 2038-39	(88,683)	(30,453)	965	(118,171)
FY 2039-40	(96,669)	(33,359)	1,012	(129,016)
FY 2040-41	(105,072)	(36,413)	1,058	(140,427)
FY 2041-42	(113,841)	(39,647)	1,103	(152,385)
FY 2042-43	(122,941)	(43,069)	1,148	(164,862)
FY 2043-44	(132,487)	(46,650)	1,196	(177,941)
FY 2044-45	(142,284)	(50,424)	1,252	(191,456)
FY 2045-46	(152,251)	(54,374)	1,329	(205,296)
FY 2046-47	(162,122)	(58,525)	1,237	(219,410)
FY 2047-48	(172,107)	(62,874)	1,255	(233,726)
FY 2048-49	(182,720)	(67,296)	1,277	(248,739)
FY 2049-50	(193,658)	(72,175)	1,298	(264,535)
FY 2050-51	(204,540)	(76,596)	1,314	(279,822)
FY 2051-52	(202,359)	(80,997)	1,334	(282,022)
TOTAL	$(2,646,368)	$(957,889)	$24,346	$(3,579,911)

* Totals may not add due to rounding.