

January 9, 2020

Mr. David Eager
Executive Director
Kentucky Retirement Systems
1260 Louisville Road
Frankfort, KY 40601

Re: Actuarial Analysis of Proposed Pension Reform Legislation HB 171 and its Financial Impact on the Kentucky Retirement Systems
AA Statement 1 of 1

Dear Mr. Eager:

We have reviewed the proposed changes in the pension reform legislation HB 171 and the purpose of this letter is to communicate the actuarial analysis of this legislation on the KERS Non-Hazardous retirement and insurance funds.

Provisions of Proposed Legislation

Beginning with the 2020/2021 fiscal year, this proposed legislation would change the method for allocating the contribution requirement related to the amortization of the unfunded actuarial accrued liability among employers from a percentage of payroll to a percentage of each individual employer's percentage of the System's total actuarial accrued liability based on the July 1, 2019 actuarial valuation. Employers would continue contributing a normal cost as a percentage of their employees' covered payroll. The proposed legislation includes additional changes applicable to the Finance and Administration Cabinet that are not relevant in this analysis.

Summary of Cost Impact

HB 171 will have no fiscal impact to the Retirement System because the proposed legislation does not modify the methods and assumptions for determining the contribution requirement for the System as a whole. **However, we believe this legislation will significantly reduce the System's risk of receiving insufficient contributions because employers will no longer be able to reduce their pension cost by reducing their covered payroll.**

While there is no fiscal impact on the System, the proposed legislation modifies the method for allocating the total contribution requirement to the participating employers in the System from being based on covered payroll to the employer's share of the System's actuarial accrued liability. As a result, each participating employer's contribution requirement could increase or decrease. For example, the State agencies' total estimated contribution effort under the proposed legislation will increase by \$34.2 million (i.e. an increase from \$1,035.3 million to \$1,069.5 million) from what it is expected to be under the current method, with a corresponding collective net decrease in the contribution requirement for the quasi-governmental agencies.

Below is a table summarizing the expected magnitude of the change in the contribution requirement by employer type.

**Table 1. Comparison of Contribution Effort for Current and Proposed Method
 (\$ in Millions)**

Agency Type	Projected FY 20/21 Payroll	Effective Contribution Rate		Estimated Required Contribution	
		Current	Proposed	Current	Proposed
(1)	(2)	(3)	(4)	(5)	(6)
Health Department	\$93.2	93.01%	95.30%	\$86.7	\$88.8
Non-P1 State Assoc/Corp	27.6	93.01%	60.16%	25.7	16.6
Non-P1 State Agencies	10.1	93.01%	33.15%	9.4	3.3
Reg Mental Health Units	89.7	93.01%	90.03%	83.4	80.8
Universities	104.0	93.01%	75.18%	96.7	78.2
All other State Entities	<u>1,113.1</u>	93.01%	96.08%	<u>1,035.3</u>	<u>1,069.5</u>
Total for all employers	\$1,437.7	93.01%	93.01%	\$1,337.2	\$1,337.2

Please refer to Exhibits 1. and 2. for the expected fiscal impact of the proposed legislation for the Commonwealth and each individual agency. As a technical note, it is our understanding that the proposed legislation may require the contribution effort for a limited number of additional agencies to be allocated separately. These agencies were not separately identified at the time this analysis was written and were therefore included in the “All Other State Entities” classification in Exhibits 1. and 2. and in Table 1 above.

Exhibits 3. and 4. provide a 30-year projection of the liability and contribution requirements of the pension and insurance funds. Note, there is no material impact on these projected amounts due to the proposed legislation because these projections are for the System in aggregate but we have included them with the analysis for completeness.

Comments regarding the Proposed Legislation

Currently KRS collects contributions from participating employers based on the employer’s total payroll of employees who are earning benefits in KERS (i.e. covered payroll). The actuarially determined contribution rate is comprised of two components - the normal cost rate (to pay for the benefits accruing in the next year) and the unfunded amortization (to pay for the benefits accrued by members in previous years). The unfunded amortization is calculated by first determining the dollar amount necessary to pay for the unfunded liability based on KRS’s funding policy and then by dividing that dollar amount by expected covered payroll to convert that contribution requirement to a percentage of payroll (i.e. a contribution rate). Based on the July 1, 2019 actuarial valuation, the contribution rate for the KERS Non-Hazardous System beginning July 1, 2020 will be 93.01% of

pay (pension and insurance) which is comprised of a 10.35% normal cost rate and a 82.66% amortization cost rate.

Under the current contribution allocation method, an employer can decrease their pension cost by \$930.10 for every \$1,000 reduction in their reported payroll to the System. Consequently, it is not surprising to see many employers participating in KRS performing deliberate workforce actions to reduce their payroll reported to the System (e.g. through use of technology improvements, or contractors and outsourcing agencies) in order to reduce their pension cost. The reported payroll and active membership in the KERS Non-Hazardous System has decreased from \$1.732 billion in payroll and 46.6k active members in 2011 to \$1.438 billion in payroll and 33.7k active members in 2019. This is a 17% decrease in covered payroll and a 28% reduction in active membership over the last eight years. This decrease in the covered payroll requires subsequent increases in the unfunded amortization contribution rate in order to maintain the same contribution dollars to the System.

Based on historical employer behavior and the current contribution rates, we believe employers will continue reducing their covered payroll in future years if the current method for collecting contributions on covered payroll remains unchanged, which will result in contribution rates to continue to increase in future years, thereby further increasing employers' incentive to continue reducing covered payroll. Maintaining the current method poses a significant risk to the KERS Non-Hazardous System of receiving insufficient contributions. This proposed legislation is expected to significantly reduce this risk by reducing employers' ability to control their pension contribution requirement through covered payroll reduction.

Under the proposed legislation, employers would continue contributing a normal cost rate (10.35% of pay) times the payroll of their employees earning benefits in KERS plus an allocated portion of the System's annual amortization cost. The amortization cost will be based on the employer's portion of the System's total actuarial accrued liability based on the July 1, 2019 actuarial valuation. Since the amortization cost is no longer tied to employer payroll, the System would be expected to receive the entire contribution requirement regardless of employer workforce actions to reduce covered payroll. Also, since an employer's allocated portion of the amortization cost is fixed as a percentage of the System's total amortization cost, an employer can increase their payroll without seeing large increases in their pension contributions. In other words, the employers pension cost would increase by \$103.50 for every \$1,000 increase in covered payroll (versus the current \$930.10).

The dollar amount of the employer's amortization cost will increase or decrease from year-to-year, depending the System's liability and investment experience, but is expected to remain relatively level during the duration of the funding period, which is 24 years as of July 1, 2019. The basis for determining each employer's required amortization cost is a policy decision, but it is relatively easy to reason that this allocation method is fair because the pension contributions from each employer are more directly linked to the liability attributable to their current and former employees.

However, the change in allocation method will result in a number of employers experiencing a significant increase or decrease in their pension contribution requirement. This could be a significant fiscal budgeting problem for those employers experiencing an increase in pension cost. Please refer to Exhibit 2. for a list of the expected changes in the contribution requirements for individual employers.

Basis of Calculations

GRS based the calculations and analysis in this letter on the member and financial data provided by KRS for use in performing the actuarial valuation as of June 30, 2019. The projections assume no actuarial gains or losses will occur in the future, and that members will terminate, retire, become disabled, or die as anticipated by the actuarial assumptions used to perform the June 30, 2019 actuarial valuation. The analysis and projections were performed without regard to HB 1 that was enacted during the 2019 special session as individual employer elections regarding their future cessation from participating in KERS is unknown at this time.

Our calculations are based upon assumptions regarding future events, which may or may not materialize. Depending on actual plan experience, actual results could deviate significantly from our projections.

Closing

We are not attorneys and we cannot provide a legal opinion regarding the changes in this proposed legislation. Nothing in this letter should be construed as providing legal, investment or tax advice.

Mr. White is an Enrolled Actuary. Both of the undersigned are members of the American Academy of Actuaries and we meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. In addition, all of the undersigned are experienced in performing valuations for large public retirement systems.

Sincerely,



Daniel J. White, FSA, MAAA, EA



Janie Shaw, ASA, MAAA

Enclosures

Kentucky Employees Retirement Plan (Non-Hazardous) - Retirement and Insurance Combined
Exhibit 1. Calculation of Employer Required Contributions under Proposed Legislation (HB171)
Based on the June 30, 2019 Actuarial Valuation

Agency Name (1)	Agency Classification (2)	Projected Payroll FY 20/21 (3)	Fixed Percentage of the Total Amortization Cost		Required Contribution ¹			Effective Employer Contribution Rate ² Required Contribution / Payroll		
			Accrued Liability based on June 30, 2019 Valuation (4)	Fixed Allocation of Amortization Cost (5) = (4) / \$19,199M	Normal Cost Contributions (6) = (3) x 10.35%	Amortization Cost (7) = (5) x \$1,188M	Total Required Contribution (8) = (6) + (7)	Normal Cost Contributions (9) = (6) / (3)	Amortization Cost (10) = (7) / (3)	Total Estimated Required Contribution as a % of Expected Pay (11) = (8) / (3)
ALL OTHER STATE ENTITIES		1,113,119,006	15,417,404,361	80.30112%	115,207,810	954,265,784	1,069,473,594	10.35%	85.73%	96.08%
LEX FAYETTE CO HLTH DEPT	Health Departments	6,279,010	89,050,918	0.46382%	649,878	5,511,848	6,161,726	10.35%	87.78%	98.13%
LAKE CUMBERLAND DISTRICT	Health Departments	5,547,445	73,620,021	0.38345%	574,161	4,556,764	5,130,925	10.35%	82.14%	92.49%
BARREN RVR DIST HLTH DEPT	Health Departments	5,032,523	68,855,538	0.35863%	520,866	4,261,813	4,782,679	10.35%	84.69%	95.04%
GREEN RVR DIST HLTH DEPT	Health Departments	6,319,042	82,561,808	0.43002%	654,021	5,110,182	5,764,203	10.35%	80.87%	91.22%
NORTHERN KY DIST HLTH DEP	Health Departments	6,243,649	54,194,473	0.28227%	646,218	3,354,382	4,000,600	10.35%	53.72%	64.07%
LINCOLN TRL DIST HLTH DEP	Health Departments	3,473,278	67,158,260	0.34979%	359,484	4,156,762	4,516,246	10.35%	119.68%	130.03%
KY RIVER DIST HEALTH DEPT	Health Departments	2,808,126	70,590,492	0.36767%	290,641	4,369,240	4,659,881	10.35%	155.59%	165.94%
MADISON CO HEALTH DEP	Health Departments	3,681,668	53,565,044	0.27899%	381,053	3,315,403	3,696,456	10.35%	90.05%	100.40%
CUMBERLAND VLY DIST HEALT	Health Departments	2,393,958	89,949,862	0.46850%	247,775	5,567,463	5,815,238	10.35%	232.56%	242.91%
WEDCO DIST HEALTH DEPT	Health Departments	2,630,208	28,173,710	0.14674%	272,227	1,743,798	2,016,025	10.35%	66.30%	76.65%
FRANKLIN CO HEALTH DEPT	Health Departments	2,420,588	22,689,496	0.11818%	250,531	1,404,403	1,654,934	10.35%	58.02%	68.37%
WHITLEY CO HEALTH DEPT	Health Departments	1,836,382	28,890,387	0.15047%	190,066	1,788,124	1,978,190	10.35%	97.37%	107.72%
PIKE CO HEALTH DEPT	Health Departments	1,816,056	25,165,288	0.13107%	187,962	1,557,582	1,745,544	10.35%	85.77%	96.12%
THREE RIVERS DIST HLTH	Health Departments	1,405,324	22,852,018	0.11902%	145,451	1,414,385	1,559,836	10.35%	100.64%	110.99%
KNOX CO HEALTH DEPT	Health Departments	1,871,943	28,079,768	0.14625%	193,746	1,737,975	1,931,721	10.35%	92.84%	103.19%
PURCHASE DIST HLTH DEPT	Health Departments	1,962,251	44,833,499	0.23351%	203,093	2,774,938	2,978,031	10.35%	141.42%	151.77%
CLARK CO HEALTH DEPT	Health Departments	1,731,244	17,846,746	0.09295%	179,184	1,104,580	1,283,764	10.35%	63.80%	74.15%
GATEWAY DIST HEALTH DEPT	Health Departments	2,071,219	25,855,364	0.13467%	214,371	1,600,363	1,814,734	10.35%	77.27%	87.62%
N CENTRAL DIST HLTH DEPT	Health Departments	1,534,303	21,562,812	0.11231%	158,800	1,334,646	1,493,446	10.35%	86.99%	97.34%
BREATHITT CO HEALTH DEPT	Health Departments	1,335,524	18,565,852	0.09670%	138,227	1,149,143	1,287,370	10.35%	86.04%	96.39%
PENNYRILE DIST HLTH DEPT	Health Departments	1,606,165	16,344,611	0.08513%	166,238	1,011,650	1,177,888	10.35%	62.99%	73.34%
MARSHALL CO HEALTH DEPT	Health Departments	1,436,565	17,193,457	0.08955%	148,684	1,064,176	1,212,860	10.35%	74.08%	84.43%
CHRISTIAN CO HEALTH DEPT	Health Departments	1,287,747	13,360,854	0.06959%	133,282	826,979	960,261	10.35%	64.22%	74.57%
MONTGOMERY CO HEALTH DEPT	Health Departments	1,435,257	11,887,257	0.06191%	148,549	735,713	884,262	10.35%	51.26%	61.61%
HOPKINS CO HEALTH DEPT	Health Departments	1,446,874	17,815,060	0.09279%	149,751	1,102,679	1,252,430	10.35%	76.21%	86.56%
JOHNSON CO HEALTH DEPT	Health Departments	1,214,044	15,484,079	0.08065%	125,654	958,412	1,084,066	10.35%	78.94%	89.29%
FLOYD CO HEALTH CENTER	Health Departments	940,121	12,800,870	0.06667%	97,303	792,279	889,582	10.35%	84.27%	94.62%
ASHLAND BOYD CO HEALTH DP	Health Departments	1,077,672	15,735,728	0.08196%	111,539	973,979	1,085,518	10.35%	90.38%	100.73%
LAUREL CO HEALTH DEPT	Health Departments	1,137,856	14,475,341	0.07539%	117,768	895,904	1,013,672	10.35%	78.74%	89.09%
BULLITT CO HEALTH DEPT	Health Departments	1,194,114	13,823,739	0.07200%	123,591	855,619	979,210	10.35%	71.65%	82.00%
BELL CO HEALTH DEPT	Health Departments	852,505	10,731,667	0.05590%	88,234	664,293	752,527	10.35%	77.92%	88.27%
GREENUP CO HLTH DEPT	Health Departments	921,572	11,509,071	0.05994%	95,383	712,303	807,686	10.35%	77.29%	87.64%
JESSAMINE CO HEALTH DEPT	Health Departments	952,499	8,686,531	0.04524%	98,584	537,614	636,198	10.35%	56.44%	66.79%
GRAVES CO HEALTH CENTER	Health Departments	1,080,652	6,110,503	0.03183%	111,847	378,255	490,102	10.35%	35.00%	45.35%
HARLAN CO HEALTH DEPT	Health Departments	934,178	7,218,470	0.03760%	96,687	446,823	543,510	10.35%	47.83%	58.18%
OLDHAM CO HEALTH DEPT	Health Departments	987,904	10,480,598	0.05459%	102,248	648,725	750,973	10.35%	65.67%	76.02%
ALLEN CO HEALTH DEPT	Health Departments	840,564	7,911,333	0.04121%	86,998	489,723	576,721	10.35%	58.26%	68.61%
BUFFALO TRACE HEALTH DEPT	Health Departments	779,156	10,783,459	0.05617%	80,643	667,501	748,144	10.35%	85.67%	96.02%
MUHLENBERG CO.HEALTH DEPT	Health Departments	661,770	7,886,100	0.04107%	68,493	488,059	556,552	10.35%	73.75%	84.10%
MERCER CO HEALTH DEPT	Health Departments	696,882	10,106,660	0.05264%	72,127	625,552	697,679	10.35%	89.76%	100.11%
LAWRENCE CO HEALTH DEPT	Health Departments	690,884	3,868,705	0.02015%	71,506	239,454	310,960	10.35%	34.66%	45.01%
WOODFORD CO HEALTH DEPT	Health Departments	512,541	5,453,322	0.02840%	53,048	337,494	390,542	10.35%	65.85%	76.20%
CALLOWAY CO HEALTH DEPT	Health Departments	565,019	4,137,638	0.02155%	58,479	256,091	314,570	10.35%	45.32%	55.67%
MAGOFFIN CO HEALTH DEPT	Health Departments	544,522	6,467,092	0.03368%	56,358	400,239	456,597	10.35%	73.50%	83.85%
MARTIN CO HEALTH DEPT	Health Departments	453,796	5,286,010	0.02753%	46,968	327,155	374,123	10.35%	72.09%	82.44%
BOYLE CO HEALTH DEPT	Health Departments	551,379	6,346,920	0.03306%	57,068	392,872	449,940	10.35%	71.25%	81.60%
BOURBON CO HEALTH CENTER	Health Departments	522,078	10,577,403	0.05509%	54,035	654,667	708,702	10.35%	125.40%	135.75%
ANDERSON CO HEALTH DEPT	Health Departments	424,133	5,076,042	0.02644%	43,898	314,202	358,100	10.35%	74.08%	84.43%
LEWIS CO HEALTH DEPT	Health Departments	548,857	3,061,131	0.01594%	56,807	189,424	246,231	10.35%	34.51%	44.86%
ESTILL CO HEALTH DEPT	Health Departments	481,325	5,579,547	0.02906%	49,817	345,337	395,154	10.35%	71.75%	82.10%
LINCOLN CO HEALTH DEPT	Health Departments	434,068	4,897,375	0.02551%	44,926	303,150	348,076	10.35%	69.84%	80.19%

Kentucky Employees Retirement Plan (Non-Hazardous) - Retirement and Insurance Combined
Exhibit 1. Calculation of Employer Required Contributions under Proposed Legislation (HB171)
Based on the June 30, 2019 Actuarial Valuation

Agency Name (1)	Agency Classification (2)	Projected Payroll FY 20/21 (3)	Fixed Percentage of the Total Amortization Cost		Required Contribution ¹			Effective Employer Contribution Rate ² Required Contribution / Payroll		
			Accrued Liability based on June 30, 2019 Valuation (4)	Fixed Allocation of Amortization Cost (5) = (4) / \$19,199M	Normal Cost Contributions (6) = (3) x 10.35%	Amortization Cost (7) = (5) x \$1,188M	Total Required Contribution (8) = (6) + (7)	Normal Cost Contributions (9) = (6) / (3)	Amortization Cost (10) = (7) / (3)	Total Estimated Required Contribution as a % of Expected Pay (11) = (8) / (3)
			BRECKINRIDGE CO HEALTH BD	Health Departments	544,432	7,704,261	0.04013%	56,349	476,889	533,238
GRAYSON COUNTY HEALTH DEPT	Health Departments	451,991	4,598,067	0.02395%	46,781	284,612	331,393	10.35%	62.97%	73.32%
LITTLE SANDY DIST HEALTH	Health Departments	-	7,237,775	0.03770%	-	448,011	448,011	N/A	N/A	N/A
GARRARD COUNTY HEALTH DPT	Health Departments	325,193	3,926,271	0.02045%	33,657	243,019	276,676	10.35%	74.73%	85.08%
TODD CO HEALTH DEPT	Health Departments	586,208	4,687,868	0.02442%	60,673	290,197	350,870	10.35%	49.50%	59.85%
FLEMING CO HEALTH DEP	Health Departments	348,816	4,386,549	0.02285%	36,102	271,540	307,642	10.35%	77.85%	88.20%
MONROE CO HEALTH DEPT	Health Departments	379,290	3,137,459	0.01634%	39,257	194,178	233,435	10.35%	51.20%	61.55%
BRACKEN CO HEALTH DEPT	Health Departments	348,044	2,410,616	0.01256%	36,023	149,258	185,281	10.35%	42.88%	53.23%
POWELL CO HEALTH DEPT	Health Departments	298,757	4,200,545	0.02188%	30,921	260,013	290,934	10.35%	87.03%	97.38%
CARTER CO HEALTH DEPT	Health Departments	328,054	1,936,351	0.01009%	33,954	119,905	153,859	10.35%	36.55%	46.90%
KY HIGHER ED STUD LN CORP	Non-P1 State Assoc/Corp.	11,081,890	81,896,904	0.42656%	1,146,976	5,069,065	6,216,041	10.35%	45.74%	56.09%
KENTUCKY HOUSING CORP	Non-P1 State Assoc/Corp.	9,887,127	98,280,874	0.51189%	1,023,318	6,083,092	7,106,410	10.35%	61.53%	71.88%
CSG HEADQUARTERS	Non-P1 State Assoc/Corp.	3,572,893	19,274,916	0.10039%	369,794	1,192,994	1,562,788	10.35%	33.39%	43.74%
KET FOUNDATION	Non-P1 State Assoc/Corp.	1,718,678	15,066,238	0.07847%	177,883	932,505	1,110,388	10.35%	54.26%	64.61%
ASST OF COMMONWEALTH ATTY	Non-P1 State Assoc/Corp.	1,086,231	5,807,856	0.03025%	112,425	359,479	471,904	10.35%	33.09%	43.44%
HIGHSCHOOL ATHLETIC ASSOC	Non-P1 State Assoc/Corp.	205,880	1,413,847	0.00736%	21,309	87,463	108,772	10.35%	42.48%	52.83%
O A S I S	Non-P1 State Agencies	640,209	2,304,549	0.01200%	66,262	142,603	208,865	10.35%	22.27%	32.62%
KDVA	Non-P1 State Agencies	871,207	2,431,059	0.01266%	90,170	150,446	240,616	10.35%	17.27%	27.62%
B.R.A.S.S.	Non-P1 State Agencies	638,864	2,132,362	0.01111%	66,122	132,027	198,149	10.35%	20.67%	31.02%
BLUEGRASS RAPE CRISIS CTR	Non-P1 State Agencies	569,641	2,744,493	0.01429%	58,958	169,817	228,775	10.35%	29.81%	40.16%
SAFE HARBOR	Non-P1 State Agencies	651,225	1,312,696	0.00684%	67,402	81,284	148,686	10.35%	12.48%	22.83%
SANCTUARY INC	Non-P1 State Agencies	634,076	2,510,255	0.01307%	65,627	155,319	220,946	10.35%	24.50%	34.85%
LOTUS	Non-P1 State Agencies	820,631	1,074,054	0.00559%	84,935	66,429	151,364	10.35%	8.09%	18.44%
BETHANY HOUSE ABUSE SHELT	Non-P1 State Agencies	462,201	1,675,224	0.00873%	47,838	103,744	151,582	10.35%	22.45%	32.80%
SPRINGHAVEN INC	Non-P1 State Agencies	346,635	1,527,812	0.00796%	35,877	94,593	130,470	10.35%	27.29%	37.64%
KASAP	Non-P1 State Agencies	401,601	943,862	0.00492%	41,566	58,467	100,033	10.35%	14.56%	24.91%
SILVERLEAF	Non-P1 State Agencies	411,241	2,017,711	0.01051%	42,563	124,897	167,460	10.35%	30.37%	40.72%
WOMEN AWARE	Non-P1 State Agencies	213,308	975,811	0.00508%	22,077	60,369	82,446	10.35%	28.30%	38.65%
D.O.V.E.S.	Non-P1 State Agencies	433,267	1,319,147	0.00687%	44,843	81,640	126,483	10.35%	18.84%	29.19%
NURSING HOME OMBUDSMAN	Non-P1 State Agencies	235,384	879,808	0.00458%	24,362	54,427	78,789	10.35%	23.12%	33.47%
HOPE HARBOR INC	Non-P1 State Agencies	349,924	824,202	0.00429%	36,217	50,981	87,198	10.35%	14.57%	24.92%
KY OFFICE OF BAR ADMISSIO	Non-P1 State Agencies	204,270	2,552,890	0.01330%	21,142	158,052	179,194	10.35%	77.37%	87.72%
CHILD WATCH ADVOCACY CTR	Non-P1 State Agencies	227,648	759,321	0.00395%	23,562	46,940	70,502	10.35%	20.62%	30.97%
FRANKLIN CO COUNCIL AGING	Non-P1 State Agencies	110,250	1,371,890	0.00715%	11,411	84,968	96,379	10.35%	77.07%	87.42%
JUDI'S PLACE FOR KIDS, INC.	Non-P1 State Agencies	363,068	777,468	0.00405%	37,578	48,129	85,707	10.35%	13.26%	23.61%
CUMBERLAND V C A CENTER	Non-P1 State Agencies	300,383	821,917	0.00428%	31,090	50,862	81,952	10.35%	16.93%	27.28%
KY ASSOC OF REGIONAL PROG	Non-P1 State Agencies	118,750	1,817,343	0.00947%	12,291	112,538	124,829	10.35%	94.77%	105.12%
BARREN RIVER CHILD ADVOCA	Non-P1 State Agencies	215,348	406,450	0.00212%	22,289	25,193	47,482	10.35%	11.70%	22.05%
CHILD ADV CTR OF GRN RVR	Non-P1 State Agencies	156,406	572,517	0.00298%	16,188	35,413	51,601	10.35%	22.64%	32.99%
MUN ELEC POW ASSOC OF KY	Non-P1 State Agencies	135,616	1,745,743	0.00909%	14,036	108,022	122,058	10.35%	79.65%	90.00%
KY RIVER CHILD ADVOCACY	Non-P1 State Agencies	127,195	290,885	0.00152%	13,165	18,063	31,228	10.35%	14.20%	24.55%
PENNYRILE CHILD ADV CTR	Non-P1 State Agencies	125,509	460,162	0.00240%	12,990	28,521	41,511	10.35%	22.72%	33.07%
LAKE CUMB CHILD ADV CTR	Non-P1 State Agencies	178,427	545,959	0.00284%	18,467	33,749	52,216	10.35%	18.91%	29.26%
BUFFALO TR CHILD ADV INC	Non-P1 State Agencies	96,571	252,189	0.00131%	9,995	15,568	25,563	10.35%	16.12%	26.47%
GATEWAY CHILD ADVOCACY	Non-P1 State Agencies	34,000	53,228	0.00028%	3,519	3,327	6,846	10.35%	9.79%	20.14%
NEW VISTA OF THE BLUEGRASS, INC.	Reg Mental Hlth Units	36,821,842	375,801,295	1.95735%	3,811,061	23,260,350	27,071,411	10.35%	63.17%	73.52%
CUMBERLAND RIVER MHMR	Reg Mental Hlth Units	11,237,059	98,266,354	0.51182%	1,163,036	6,082,260	7,245,296	10.35%	54.13%	64.48%
LIFESKILLS INC	Reg Mental Hlth Units	8,097,314	75,680,895	0.39418%	838,072	4,684,274	5,522,346	10.35%	57.85%	68.20%
COMMUNICARE INC	Reg Mental Hlth Units	5,611,288	66,588,437	0.34682%	580,768	4,121,468	4,702,236	10.35%	73.45%	83.80%
ADANTA/BEHAVIORAL HLTH SR	Reg Mental Hlth Units	5,028,478	89,023,918	0.46368%	520,447	5,510,184	6,030,631	10.35%	109.58%	119.93%
PENNYROYAL REG MHMR BD	Reg Mental Hlth Units	6,603,427	68,135,236	0.35488%	683,455	4,217,249	4,900,704	10.35%	63.86%	74.21%
MOUNTAIN COMP CARE CENTER	Reg Mental Hlth Units	5,284,559	45,921,039	0.23918%	546,952	2,842,318	3,389,270	10.35%	53.79%	64.14%

Kentucky Employees Retirement Plan (Non-Hazardous) - Retirement and Insurance Combined
Exhibit 1. Calculation of Employer Required Contributions under Proposed Legislation (HB171)
Based on the June 30, 2019 Actuarial Valuation

Agency Name (1)	Agency Classification (2)	Projected Payroll FY 20/21 (3)	Fixed Percentage of the Total Amortization Cost		Required Contribution ¹			Effective Employer Contribution Rate ² Required Contribution / Payroll		
			Accrued Liability based on June 30, 2019 Valuation (4)	Fixed Allocation of Amortization Cost (5) = (4) / \$19,199M	Normal Cost Contributions (6) = (3) x 10.35%	Amortization Cost (7) = (5) x \$1,188M	Total Required Contribution (8) = (6) + (7)	Normal Cost Contributions (9) = (6) / (3)	Amortization Cost (10) = (7) / (3)	Total Estimated Required Contribution as a % of Expected Pay (11) = (8) / (3)
GREEN RVR REG MHMR BD	Reg Mental Hlth Units	2,625,640	32,599,922	0.16980%	271,754	2,017,834	2,289,588	10.35%	76.85%	87.20%
NORTHERN KY REG MHMR BD	Reg Mental Hlth Units	148,611	57,312,274	0.29851%	15,381	3,547,371	3,562,752	10.35%	2387.02%	2397.37%
WESTERN KY REG MHMR ADV	Reg Mental Hlth Units	3,595,880	35,526,557	0.18504%	372,174	2,198,940	2,571,114	10.35%	61.15%	71.50%
COMPREHEND INC REG MHMR B	Reg Mental Hlth Units	4,656,035	29,064,447	0.15138%	481,900	1,798,938	2,280,838	10.35%	38.64%	48.99%
SEVEN CO SERVICES INC	Reg Mental Hlth Units	-	154,213,520	0.80322%	-	9,545,139	9,545,139	N/A	N/A	N/A
KY RIVER COMM CARE INC	Reg Mental Hlth Units	-	26,687,511	0.13900%	-	1,651,819	1,651,819	N/A	N/A	N/A
NORTHERN KY UNIVERSITY	Universities	33,051,008	216,700,396	1.12868%	3,420,779	13,412,773	16,833,552	10.35%	40.58%	50.93%
EASTERN KY UNIV	Universities	14,964,357	238,834,416	1.24396%	1,548,811	14,782,714	16,331,525	10.35%	98.79%	109.14%
KCTCS	Universities	19,171,232	155,644,580	0.81067%	1,984,223	9,633,672	11,617,895	10.35%	50.25%	60.60%
WESTERN KENTUCKY UNIV	Universities	15,854,956	180,247,299	0.93881%	1,640,988	11,156,435	12,797,423	10.35%	70.37%	80.72%
MURRAY STATE UNIV	Universities	11,391,807	132,704,683	0.69119%	1,179,052	8,213,820	9,392,872	10.35%	72.10%	82.45%
MOREHEAD STATE UNIVERSITY	Universities	4,766,363	120,944,592	0.62994%	493,319	7,485,950	7,979,269	10.35%	157.06%	167.41%
KENTUCKY STATE UNIVERSITY	Universities	4,775,638	43,965,436	0.22899%	494,279	2,721,224	3,215,503	10.35%	56.98%	67.33%
Totals		1,437,647,279	19,199,492,501	100.00000%	148,796,493	1,188,359,241	1,337,155,734	10.35%	82.66%	93.01%

Summary of Above Information by Agency Classification

Agency Classification	Projected Payroll FY 20/21	Fixed Percentage of the Total Amortization Cost		Required Contribution ¹			Effective Employer Contribution Rate ² Required Contribution / Payroll		
		Accrued Liability based on June 30, 2019 Valuation	Fixed Allocation of Amortization Cost	Normal Cost Contributions	Amortization Cost	Total Estimated Required Contribution	Normal Cost Contributions	Amortization Cost	Total Estimated Required Contribution Rate
Health Departments	93,217,225	1,279,383,691	6.66362%	9,647,985	79,187,739	88,835,724	10.35%	84.95%	95.30%
Non-P1 State Assoc/Corp.	27,552,699	221,740,635	1.15492%	2,851,705	13,724,598	16,576,303	10.35%	49.81%	60.16%
Non-P1 State Agencies	10,072,855	37,101,007	0.19324%	1,042,542	2,296,388	3,338,930	10.35%	22.80%	33.15%
Reg Mental Hlth Units	89,710,133	1,154,821,405	6.01486%	9,285,000	71,478,144	80,763,144	10.35%	79.68%	90.03%
Universities	103,975,361	1,089,041,402	5.67224%	10,761,451	67,406,588	78,168,039	10.35%	64.83%	75.18%
ALL OTHER STATE ENTITIES	1,113,119,006	15,417,404,361	80.30112%	115,207,810	954,265,784	1,069,473,594	10.35%	85.73%	96.08%

Notes and Assumptions

¹ Actual normal cost contributions will be based on an employer's actual salary for the fiscal year 2020/2021 multiplied by 10.35%.

² Required contribution as a percentage of pay shown for illustrative purposes only. Actual required contributions will be equal to 10.35% of an employer's actual payroll for fiscal year 2020/2021 plus the amortization cost shown in column (7).

Kentucky Employees Retirement Plan (Non-Hazardous) - Retirement and Insurance Combined
Exhibit 2. Impact of Proposed Legislation (HB171) on Employer Contribution Rates
Based on the June 30, 2019 Actuarial Valuation

Agency Name (1)	Agency Classification (2)	Projected Payroll FY 20/21 (3)	Required Contribution			Effective Employer Contribution Rate Required Contribution / Payroll		
			Current Funding Arrangement (4) = (3) x 93.01%	Proposed Legislation (5) = Exhibit 1, Column (8)	Increase/(Decrease) due to Legislation (6) = (5) - (4)	Current Funding Arrangement (7) = (4) / (3)	Proposed Legislation (8) = Exhibit 1, Column (11)	Increase/(Decrease) due to Legislation (9) = (8) - (7)
ALL OTHER STATE ENTITIES		1,113,119,006	1,035,311,987	1,069,473,594	34,161,607	93.01%	96.08%	3.07%
LEX FAYETTE CO HLTH DEPT	Health Departments	6,279,010	5,840,107	6,161,726	321,619	93.01%	98.13%	5.12%
LAKE CUMBERLAND DISTRICT	Health Departments	5,547,445	5,159,679	5,130,925	(28,754)	93.01%	92.49%	-0.52%
BARREN RVR DIST HLTH DEPT	Health Departments	5,032,523	4,680,750	4,782,679	101,929	93.01%	95.04%	2.03%
GREEN RVR DIST HLTH DEPT	Health Departments	6,319,042	5,877,341	5,764,203	(113,138)	93.01%	91.22%	-1.79%
NORTHERN KY DIST HLTH DEP	Health Departments	6,243,649	5,807,218	4,000,600	(1,806,618)	93.01%	64.07%	-28.94%
LINCOLN TRL DIST HLTH DEP	Health Departments	3,473,278	3,230,496	4,516,246	1,285,750	93.01%	130.03%	37.02%
KY RIVER DIST HEALTH DEPT	Health Departments	2,808,126	2,611,838	4,659,881	2,048,043	93.01%	165.94%	72.93%
MADISON CO HEALTH DEP	Health Departments	3,681,668	3,424,319	3,696,456	272,137	93.01%	100.40%	7.39%
CUMBERLAND VLY DIST HEALT	Health Departments	2,393,958	2,226,620	5,815,238	3,588,618	93.01%	242.91%	149.90%
WEDCO DIST HEALTH DEPT	Health Departments	2,630,208	2,446,356	2,016,025	(430,331)	93.01%	76.65%	-16.36%
FRANKLIN CO HEALTH DEPT	Health Departments	2,420,588	2,251,389	1,654,934	(596,455)	93.01%	68.37%	-24.64%
WHITLEY CO HEALTH DEPT	Health Departments	1,836,382	1,708,019	1,978,190	270,171	93.01%	107.72%	14.71%
PIKE CO HEALTH DEPT	Health Departments	1,816,056	1,689,114	1,745,544	56,430	93.01%	96.12%	3.11%
THREE RIVERS DIST HLTH	Health Departments	1,405,324	1,307,092	1,559,836	252,744	93.01%	110.99%	17.98%
KNOX CO HEALTH DEPT	Health Departments	1,871,943	1,741,094	1,931,721	190,627	93.01%	103.19%	10.18%
PURCHASE DIST HLTH DEPT	Health Departments	1,962,251	1,825,090	2,978,031	1,152,941	93.01%	151.77%	58.76%
CLARK CO HEALTH DEPT	Health Departments	1,731,244	1,610,230	1,283,764	(326,466)	93.01%	74.15%	-18.86%
GATEWAY DIST HEALTH DEPT	Health Departments	2,071,219	1,926,441	1,814,734	(111,707)	93.01%	87.62%	-5.39%
N CENTRAL DIST HLTH DEPT	Health Departments	1,534,303	1,427,055	1,493,446	66,391	93.01%	97.34%	4.33%
BREATHITT CO HEALTH DEPT	Health Departments	1,335,524	1,242,171	1,287,370	45,199	93.01%	96.39%	3.38%
PENNYRILE DIST HLTH DEPT	Health Departments	1,606,165	1,493,894	1,177,888	(316,006)	93.01%	73.34%	-19.67%
MARSHALL CO HEALTH DEPT	Health Departments	1,436,565	1,336,149	1,212,860	(123,289)	93.01%	84.43%	-8.58%
CHRISTIAN CO HEALTH DEPT	Health Departments	1,287,747	1,197,733	960,261	(237,472)	93.01%	74.57%	-18.44%
MONTGOMERY CO HEALTH DEPT	Health Departments	1,435,257	1,334,933	884,262	(450,671)	93.01%	61.61%	-31.40%
HOPKINS CO HEALTH DEPT	Health Departments	1,446,874	1,345,738	1,252,430	(93,308)	93.01%	86.56%	-6.45%
JOHNSON CO HEALTH DEPT	Health Departments	1,214,044	1,129,182	1,084,066	(45,116)	93.01%	89.29%	-3.72%
FLOYD CO HEALTH CENTER	Health Departments	940,121	874,407	889,582	15,175	93.01%	94.62%	1.61%
ASHLAND BOYD CO HEALTH DP	Health Departments	1,077,672	1,002,343	1,085,518	83,175	93.01%	100.73%	7.72%
LAUREL CO HEALTH DEPT	Health Departments	1,137,856	1,058,320	1,013,672	(44,648)	93.01%	89.09%	-3.92%
BULLITT CO HEALTH DEPT	Health Departments	1,194,114	1,110,645	979,210	(131,435)	93.01%	82.00%	-11.01%
BELL CO HEALTH DEPT	Health Departments	852,505	792,915	752,527	(40,388)	93.01%	88.27%	-4.74%
GREENUP CO HLTH DEPT	Health Departments	921,572	857,154	807,686	(49,468)	93.01%	87.64%	-5.37%
JESSAMINE CO HEALTH DEPT	Health Departments	952,499	885,919	636,198	(249,721)	93.01%	66.79%	-26.22%
GRAVES CO HEALTH CENTER	Health Departments	1,080,652	1,005,114	490,102	(515,012)	93.01%	45.35%	-47.66%
HARLAN CO HEALTH DEPT	Health Departments	934,178	868,879	543,510	(325,369)	93.01%	58.18%	-34.83%
OLDHAM CO HEALTH DEPT	Health Departments	987,904	918,850	750,973	(167,877)	93.01%	76.02%	-16.99%
ALLEN CO HEALTH DEPT	Health Departments	840,564	781,809	576,721	(205,088)	93.01%	68.61%	-24.40%
BUFFALO TRACE HEALTH DEPT	Health Departments	779,156	724,693	748,144	23,451	93.01%	96.02%	3.01%
MUHLNBERG CO.HEALTH DEPT	Health Departments	661,770	615,512	556,552	(58,960)	93.01%	84.10%	-8.91%
MERCER CO HEALTH DEPT	Health Departments	696,882	648,170	697,679	49,509	93.01%	100.11%	7.10%
LAWRENCE CO HEALTH DEPT	Health Departments	690,884	642,591	310,960	(331,631)	93.01%	45.01%	-48.00%
WOODFORD CO HEALTH DEPT	Health Departments	512,541	476,714	390,542	(86,172)	93.01%	76.20%	-16.81%
CALLOWAY CO HEALTH DEPT	Health Departments	565,019	525,524	314,570	(210,954)	93.01%	55.67%	-37.34%
MAGOFFIN CO HEALTH DEPT	Health Departments	544,522	506,460	456,597	(49,863)	93.01%	83.85%	-9.16%
MARTIN CO HEALTH DEPT	Health Departments	453,796	422,076	374,123	(47,953)	93.01%	82.44%	-10.57%
BOYLE CO HEALTH DEPT	Health Departments	551,379	512,838	449,940	(62,898)	93.01%	81.60%	-11.41%
BOURBON CO HEALTH CENTER	Health Departments	522,078	485,585	708,702	223,117	93.01%	135.75%	42.74%
ANDERSON CO HEALTH DEPT	Health Departments	424,133	394,486	358,100	(36,386)	93.01%	84.43%	-8.58%
LEWIS CO HEALTH DEPT	Health Departments	548,857	510,492	246,231	(264,261)	93.01%	44.86%	-48.15%
ESTILL CO HEALTH DEPT	Health Departments	481,325	447,680	395,154	(52,526)	93.01%	82.10%	-10.91%
LINCOLN CO HEALTH DEPT	Health Departments	434,068	403,727	348,076	(55,651)	93.01%	80.19%	-12.82%

Kentucky Employees Retirement Plan (Non-Hazardous) - Retirement and Insurance Combined
Exhibit 2. Impact of Proposed Legislation (HB171) on Employer Contribution Rates
Based on the June 30, 2019 Actuarial Valuation

Agency Name (1)	Agency Classification (2)	Projected Payroll FY 20/21 (3)	Required Contribution			Effective Employer Contribution Rate Required Contribution / Payroll		
			Current Funding Arrangement (4) = (3) x 93.01%	Proposed Legislation (5) = Exhibit 1, Column (8)	Increase/(Decrease) due to Legislation (6) = (5) - (4)	Current Funding Arrangement (7) = (4) / (3)	Proposed Legislation (8) = Exhibit 1, Column (11)	Increase/(Decrease) due to Legislation (9) = (8) - (7)
BRECKINRIDGE CO HEALTH BD	Health Departments	544,432	506,376	533,238	26,862	93.01%	97.94%	4.93%
GRAYSON COUNTY HEALTH DEPT	Health Departments	451,991	420,397	331,393	(89,004)	93.01%	73.32%	-19.69%
LITTLE SANDY DIST HEALTH	Health Departments	-	-	448,011	448,011	N/A	N/A	N/A
GARRARD COUNTY HEALTH DPT	Health Departments	325,193	302,462	276,676	(25,786)	93.01%	85.08%	-7.93%
TODD CO HEALTH DEPT	Health Departments	586,208	545,232	350,870	(194,362)	93.01%	59.85%	-33.16%
FLEMING CO HEALTH DEP	Health Departments	348,816	324,434	307,642	(16,792)	93.01%	88.20%	-4.81%
MONROE CO HEALTH DEPT	Health Departments	379,290	352,778	233,435	(119,343)	93.01%	61.55%	-31.46%
BRACKEN CO HEALTH DEPT	Health Departments	348,044	323,716	185,281	(138,435)	93.01%	53.23%	-39.78%
POWELL CO HEALTH DEPT	Health Departments	298,757	277,874	290,934	13,060	93.01%	97.38%	4.37%
CARTER CO HEALTH DEPT	Health Departments	328,054	305,123	153,859	(151,264)	93.01%	46.90%	-46.11%
KY HIGHER ED STUD LN CORP	Non-P1 State Assoc/Corp.	11,081,890	10,307,266	6,216,041	(4,091,225)	93.01%	56.09%	-36.92%
KENTUCKY HOUSING CORP	Non-P1 State Assoc/Corp.	9,887,127	9,196,017	7,106,410	(2,089,607)	93.01%	71.88%	-21.13%
CSG HEADQUARTERS	Non-P1 State Assoc/Corp.	3,572,893	3,323,148	1,562,788	(1,760,360)	93.01%	43.74%	-49.27%
KET FOUNDATION	Non-P1 State Assoc/Corp.	1,718,678	1,598,542	1,110,388	(488,154)	93.01%	64.61%	-28.40%
ASST OF COMMONWEALTH ATTY	Non-P1 State Assoc/Corp.	1,086,231	1,010,303	471,904	(538,399)	93.01%	43.44%	-49.57%
HIGHSCHOOL ATHLETIC ASSOC	Non-P1 State Assoc/Corp.	205,880	191,489	108,772	(82,717)	93.01%	52.83%	-40.18%
O A S I S	Non-P1 State Agencies	640,209	595,458	280,865	(386,593)	93.01%	32.62%	-60.39%
KDVA	Non-P1 State Agencies	871,207	810,310	240,616	(569,694)	93.01%	27.62%	-65.39%
B.R.A.S.S.	Non-P1 State Agencies	638,864	594,207	198,149	(396,058)	93.01%	31.02%	-61.99%
BLUEGRASS RAPE CRISIS CTR	Non-P1 State Agencies	569,641	529,823	228,775	(301,048)	93.01%	40.16%	-52.85%
SAFE HARBOR	Non-P1 State Agencies	651,225	605,704	148,686	(457,018)	93.01%	22.83%	-70.18%
SANCTUARY INC	Non-P1 State Agencies	634,076	589,754	220,946	(368,808)	93.01%	34.85%	-58.16%
LOTUS	Non-P1 State Agencies	820,631	763,269	151,364	(611,905)	93.01%	18.44%	-74.57%
BETHANY HOUSE ABUSE SHEL	Non-P1 State Agencies	462,201	429,893	151,582	(278,311)	93.01%	32.80%	-60.21%
SPRINGHAVEN INC	Non-P1 State Agencies	346,635	322,405	130,470	(191,935)	93.01%	37.64%	-55.37%
KASAP	Non-P1 State Agencies	401,601	373,529	100,033	(273,496)	93.01%	24.91%	-68.10%
SILVERLEAF	Non-P1 State Agencies	411,241	382,495	167,460	(215,035)	93.01%	40.72%	-52.29%
WOMEN AWARE	Non-P1 State Agencies	213,308	198,398	82,446	(115,952)	93.01%	38.65%	-54.36%
D.O.V.E.S.	Non-P1 State Agencies	433,267	402,982	126,483	(276,499)	93.01%	29.19%	-63.82%
NURSING HOME OMBUDSMAN	Non-P1 State Agencies	235,384	218,931	78,789	(140,142)	93.01%	33.47%	-59.54%
HOPE HARBOR INC	Non-P1 State Agencies	349,924	325,464	87,198	(238,266)	93.01%	24.92%	-68.09%
KY OFFICE OF BAR ADMISSIO	Non-P1 State Agencies	204,270	189,992	179,194	(10,798)	93.01%	87.72%	-5.29%
CHILD WATCH ADVOCACY CTR	Non-P1 State Agencies	227,648	211,735	70,502	(141,233)	93.01%	30.97%	-62.04%
FRANKLIN CO COUNCIL AGING	Non-P1 State Agencies	110,250	102,544	96,379	(6,165)	93.01%	87.42%	-5.59%
JUDI'S PLACE FOR KIDS, INC.	Non-P1 State Agencies	363,068	337,690	85,707	(251,983)	93.01%	23.61%	-69.40%
CUMBERLAND V C A CENTER	Non-P1 State Agencies	300,383	279,386	81,952	(197,434)	93.01%	27.28%	-65.73%
KY ASSOC OF REGIONAL PROG	Non-P1 State Agencies	118,750	110,449	124,829	14,380	93.01%	105.12%	12.11%
BARREN RIVER CHILD ADVOCA	Non-P1 State Agencies	215,348	200,295	47,482	(152,813)	93.01%	22.05%	-70.96%
CHILD ADV CTR OF GRN RVR	Non-P1 State Agencies	156,406	145,473	51,601	(93,872)	93.01%	32.99%	-60.02%
MUN ELEC POW ASSOC OF KY	Non-P1 State Agencies	135,616	126,136	122,058	(4,078)	93.01%	90.00%	-3.01%
KY RIVER CHILD ADVOCACY	Non-P1 State Agencies	127,195	118,304	31,228	(87,076)	93.01%	24.55%	-68.46%
PENNYRILE CHILD ADV CTR	Non-P1 State Agencies	125,509	116,736	41,511	(75,225)	93.01%	33.07%	-59.94%
LAKE CUMB CHILD ADV CTR	Non-P1 State Agencies	178,427	165,955	52,216	(113,739)	93.01%	29.26%	-63.75%
BUFFALO TR CHILD ADV INC	Non-P1 State Agencies	96,571	89,821	25,563	(64,258)	93.01%	26.47%	-66.54%
GATEWAY CHILD ADVOCACY	Non-P1 State Agencies	34,000	31,623	6,846	(24,777)	93.01%	20.14%	-72.87%
NEW VISTA OF THE BLUEGRASS, INC.	Reg Mental Hlth Units	36,821,842	34,247,995	27,071,411	(7,176,584)	93.01%	73.52%	-19.49%
CUMBERLAND RIVER MHMR	Reg Mental Hlth Units	11,237,059	10,451,589	7,245,296	(3,206,293)	93.01%	64.48%	-28.53%
LIFESKILLS INC	Reg Mental Hlth Units	8,097,314	7,531,312	5,522,346	(2,008,966)	93.01%	68.20%	-24.81%
COMMUNICARE INC	Reg Mental Hlth Units	5,611,288	5,219,059	4,702,236	(516,823)	93.01%	83.80%	-9.21%
ADANTA/BEHAVIORAL HLTH SR	Reg Mental Hlth Units	5,028,478	4,676,987	6,030,631	1,353,644	93.01%	119.93%	26.92%
PENNYROYAL REG MHMR BD	Reg Mental Hlth Units	6,603,427	6,141,847	4,900,704	(1,241,143)	93.01%	74.21%	-18.80%
MOUNTAIN COMP CARE CENTER	Reg Mental Hlth Units	5,284,559	4,915,168	3,389,270	(1,525,898)	93.01%	64.14%	-28.87%

Kentucky Employees Retirement Plan (Non-Hazardous) - Retirement and Insurance Combined
Exhibit 2. Impact of Proposed Legislation (HB171) on Employer Contribution Rates
Based on the June 30, 2019 Actuarial Valuation

Agency Name (1)	Agency Classification (2)	Projected Payroll FY 20/21 (3)	Required Contribution			Effective Employer Contribution Rate Required Contribution / Payroll		
			Current Funding Arrangement	Proposed Legislation	Increase/(Decrease) due to Legislation	Current Funding Arrangement	Proposed Legislation	Increase/(Decrease) due to Legislation
			(4) = (3) x 93.01%	(5) = Exhibit 1, Column (8)	(6) = (5) - (4)	(7) = (4) / (3)	(8) = Exhibit 1, Column (11)	(9) = (8) - (7)
GREEN RVR REG MHMR BD	Reg Mental Hlth Units	2,625,640	2,442,108	2,289,588	(152,520)	93.01%	87.20%	-5.81%
NORTHERN KY REG MHMR BD	Reg Mental Hlth Units	148,611	138,223	3,562,752	3,424,529	93.01%	2397.37%	2304.36%
WESTERN KY REG MHMR ADV	Reg Mental Hlth Units	3,595,880	3,344,528	2,571,114	(773,414)	93.01%	71.50%	-21.51%
COMPREHEND INC REG MHMR B	Reg Mental Hlth Units	4,656,035	4,330,578	2,280,838	(2,049,740)	93.01%	48.99%	-44.02%
SEVEN CO SERVICES INC	Reg Mental Hlth Units	-	-	9,545,139	9,545,139	N/A	N/A	N/A
KY RIVER COMM CARE INC	Reg Mental Hlth Units	-	-	1,651,819	1,651,819	N/A	N/A	N/A
NORTHERN KY UNIVERSITY	Universities	33,051,008	30,740,743	16,833,552	(13,907,191)	93.01%	50.93%	-42.08%
EASTERN KY UNIV	Universities	14,964,357	13,918,348	16,331,525	2,413,177	93.01%	109.14%	16.13%
KCTCS	Universities	19,171,232	17,831,163	11,617,895	(6,213,268)	93.01%	60.60%	-32.41%
WESTERN KENTUCKY UNIV	Universities	15,854,956	14,746,695	12,797,423	(1,949,272)	93.01%	80.72%	-12.29%
MURRAY STATE UNIV	Universities	11,391,807	10,595,520	9,392,872	(1,202,648)	93.01%	82.45%	-10.56%
MOREHEAD STATE UNIVERSITY	Universities	4,766,363	4,433,194	7,979,269	3,546,075	93.01%	167.41%	74.40%
KENTUCKY STATE UNIVERSITY	Universities	4,775,638	4,441,821	3,215,503	(1,226,318)	93.01%	67.33%	-25.68%
Totals		1,437,647,279	1,337,155,734	1,337,155,734	-	93.01%	93.01%	0.00%

Summary of Above Information by Agency Classification

Agency Classification	Projected Payroll FY 20/21	Required Contribution			Effective Employer Contribution Rate		
		Current Plan	Proposed Legislation	Increase/(Decrease) due to Legislation	Current Plan	Proposed Legislation	Increase/(Decrease) due to Legislation
Health Departments	93,217,225	86,701,343	88,835,724	2,134,381	93.01%	95.30%	2.29%
Non-P1 State Assoc/Corp.	27,552,699	25,626,765	16,576,303	(9,050,462)	93.01%	60.16%	-32.85%
Non-P1 State Agencies	10,072,855	9,368,761	3,338,930	(6,029,831)	93.01%	33.15%	-59.86%
Reg Mental Hlth Units	89,710,133	83,439,394	80,763,144	(2,676,250)	93.01%	90.03%	-2.98%
Universities	103,975,361	96,707,484	78,168,039	(18,539,445)	93.01%	75.18%	-17.83%
ALL OTHER STATE ENTITIES	1,113,119,006	1,035,311,987	1,069,473,594	34,161,607	93.01%	96.08%	3.07%

Kentucky Retirement Systems
Exhibit 3.
KERS Non-Hazardous Retirement Fund
Current Plan and the Enactment of HB 171
(i.e. HB 171 has no Projected Impact on the System)
(\$ in Millions)

Fiscal Year Beginning July 1,	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio (3) / (2)	Employer Contribution	Member Contribution	Covered Payroll	Employer Contribution as % of Covered Payroll	Employer Actuarial Determined Contribution Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2019	\$ 16,466	\$ 2,206	\$ 14,260	13%	\$ 924	\$ 72	\$ 1,438	64.26%	74.54%
2020	16,493	2,301	14,192	14%	1,156	71	1,428	80.98%	80.98%
2021	16,500	2,660	13,840	16%	1,151	71	1,422	80.98%	81.27%
2022	16,489	2,999	13,490	18%	1,150	71	1,417	81.21%	81.21%
2023	16,459	3,332	13,127	20%	1,147	71	1,412	81.21%	81.20%
2024	16,410	3,664	12,746	22%	1,144	70	1,409	81.23%	81.23%
2025	16,342	3,997	12,345	24%	1,142	70	1,406	81.23%	81.22%
2026	16,255	4,333	11,922	27%	1,139	70	1,402	81.20%	81.20%
2027	16,149	4,673	11,476	29%	1,136	70	1,399	81.20%	81.19%
2028	16,024	5,017	11,007	31%	1,134	70	1,396	81.20%	81.20%
2029	15,880	5,368	10,512	34%	1,132	70	1,394	81.20%	81.19%
2030	15,724	5,733	9,991	36%	1,130	70	1,393	81.16%	81.16%
2031	15,552	6,110	9,442	39%	1,130	70	1,393	81.16%	81.12%
2032	15,366	6,505	8,861	42%	1,128	70	1,393	81.00%	81.00%
2033	15,168	6,918	8,250	46%	1,129	70	1,394	81.00%	80.88%
2034	14,959	7,354	7,605	49%	1,126	70	1,395	80.72%	80.72%
2035	14,740	7,814	6,926	53%	1,128	70	1,397	80.72%	80.57%
2036	14,515	8,305	6,210	57%	1,126	70	1,401	80.36%	80.36%
2037	14,286	8,829	5,457	62%	1,130	70	1,406	80.36%	80.07%
2038	14,056	9,399	4,657	67%	1,126	71	1,413	79.66%	79.66%
2039	13,830	10,009	3,821	72%	1,131	71	1,420	79.66%	79.26%
2040	13,608	10,674	2,934	78%	1,123	71	1,426	78.73%	78.73%
2041	13,392	11,383	2,009	85%	1,128	72	1,433	78.73%	78.39%
2042	13,183	12,152	1,031	92%	1,118	72	1,438	77.75%	77.75%
2043	12,980	12,980	-	100%	64	72	1,444	4.44%	4.44%
2044	12,785	12,785	-	100%	64	72	1,448	4.40%	4.40%
2045	12,599	12,599	-	100%	63	73	1,453	4.36%	4.36%
2046	12,421	12,421	-	100%	63	73	1,457	4.32%	4.32%
2047	12,252	12,252	-	100%	63	73	1,461	4.29%	4.29%
2048	12,093	12,093	-	100%	63	73	1,465	4.27%	4.27%

Notes and assumptions:

The projection is based on the results of the June 30, 2019 actuarial valuation and assumes that all actuarial assumptions are realized, including the assumed annual asset return of 5.25%.

New active members are assumed to be hired to replace the current active members as they are assumed to terminate employment or retire.

The total active population is assumed to decrease 2% each year for each of the next 30 years.

The contribution rate established in the Commonwealth's biennium budget is based on the calculated actuarially determined contribution rate.

The 64.26% employer contribution rate for FY 2019 is the effective contribution rate after reflecting HB 1 (passed during the 2019 Special Session) which provided that

Regional Mental Health/Mental Retardation Boards, Local and District Health Departments, State Universities, Community Colleges and any other agency eligible to voluntarily cease participating in the KERS to contribute a 41.06% of pay contribution rate for FY 2020. Collectively these entities reflect approximately 23% of the covered payroll in the System.

Kentucky Retirement Systems
Exhibit 4.
KERS Non-Hazardous Insurance Fund
Current Plan and the Enactment of HB 171
(i.e. HB 171 has no Projected Impact on the System)
(\$ in Millions)

Fiscal Year Beginning July 1,	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio (3) / (2)	Employer Contribution	Member Contribution	Covered Payroll	Employer Contribution as % of Covered Payroll	Employer Actuarial Determined Contribution Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2019	\$ 2,733	\$ 991	\$ 1,742	36%	\$ 165	\$ 6	\$ 1,431	11.50%	10.65%
2020	2,808	1,090	1,718	39%	171	6	1,421	12.03%	12.03%
2021	2,882	1,209	1,673	42%	170	7	1,415	12.03%	11.99%
2022	2,951	1,318	1,633	45%	167	7	1,410	11.83%	11.83%
2023	3,015	1,420	1,595	47%	166	8	1,406	11.83%	11.73%
2024	3,072	1,522	1,550	50%	163	8	1,402	11.63%	11.63%
2025	3,123	1,618	1,505	52%	163	9	1,399	11.63%	11.53%
2026	3,165	1,711	1,454	54%	159	9	1,396	11.40%	11.40%
2027	3,200	1,797	1,403	56%	159	10	1,393	11.40%	11.28%
2028	3,224	1,878	1,346	58%	155	10	1,390	11.15%	11.15%
2029	3,239	1,951	1,288	60%	155	11	1,388	11.15%	11.03%
2030	3,245	2,020	1,225	62%	151	11	1,387	10.89%	10.89%
2031	3,244	2,083	1,161	64%	151	11	1,387	10.89%	10.78%
2032	3,235	2,145	1,090	66%	148	12	1,387	10.66%	10.66%
2033	3,221	2,203	1,018	68%	148	12	1,388	10.66%	10.58%
2034	3,203	2,263	940	71%	146	13	1,389	10.48%	10.48%
2035	3,180	2,322	858	73%	146	13	1,391	10.48%	10.40%
2036	3,156	2,386	770	76%	144	13	1,395	10.32%	10.32%
2037	3,132	2,453	679	78%	145	13	1,401	10.32%	10.23%
2038	3,108	2,527	581	81%	143	14	1,407	10.13%	10.13%
2039	3,085	2,607	478	85%	143	14	1,414	10.13%	10.05%
2040	3,063	2,695	368	88%	141	14	1,421	9.93%	9.93%
2041	3,043	2,791	252	92%	142	14	1,427	9.93%	9.87%
2042	3,024	2,896	128	96%	139	14	1,433	9.67%	9.67%
2043	3,009	3,009	-	100%	6	14	1,438	0.42%	0.42%
2044	2,995	2,995	-	100%	6	14	1,443	0.41%	0.41%
2045	2,983	2,983	-	100%	6	14	1,447	0.40%	0.40%
2046	2,971	2,971	-	100%	6	14	1,451	0.38%	0.38%
2047	2,960	2,960	-	100%	6	15	1,455	0.38%	0.38%
2048	2,947	2,947	-	100%	5	15	1,459	0.37%	0.37%

Notes and assumptions:

The projection is based on the results of the June 30, 2019 actuarial valuation and assumes that all actuarial assumptions are realized, including the assumed annual asset return of 6.25%. New active members are assumed to be hired to replace the current active members as they are assumed to terminate employment or retire.

The total active population is assumed to decrease 2% each year for each of the next 30 years.

The contribution rate established in the Commonwealth's biennium budget is based on the calculated actuarially determined contribution rate.

The 11.50% employer contribution rate for FY 2019 is the effective contribution rate after reflecting HB 1 (passed during the 2019 Special Session) which provided that

Regional Mental Health/Mental Retardation Boards, Local and District Health Departments, State Universities, Community Colleges and any other agency eligible to voluntarily cease participating in the KERS to contribute a 8.41% of pay contribution rate for FY 2020. Collectively these entities reflect approximately 23% of the covered payroll in the System.