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GASB STATEMENT NO. 68 REPORT

FOR THE

TEACHERS' RETIREMENT SYSTEM

OF THE STATE OF KENTUCKY

PREPARED AS OF JUNE 30, 2017





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

May 14, 2018

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 (TRS) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 68 and to identify the information to be provided by the actuary, Cavanaugh Macdonald Consulting (CMC). This report has been prepared as of June 30, 2017 (the Measurement Date).

GASB Statement Number 68 established accounting and financial reporting requirements for governmental employers that provide pension benefits to their employees through a trust.

The annual actuarial valuation used as a basis for much of the information presented in this report was performed as of June 30, 2016. The valuation was based upon data, furnished by the TRS staff, for active, inactive and retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial principles and practices, as well as in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board. The calculations are based on the current provisions of the Plan, and on actuarial assumptions that are, internally consistent and individually reasonable based on the actual experience of the Plan. In addition, the calculations were completed in compliance with the laws governing the Plan and, in our opinion, meet the requirements of GASB 68. The undersigned 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.



Board of Trustees
May 14, 2018
Page 2

These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 and GASB 68 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

Sincerely yours,

A handwritten signature in blue ink that reads 'Edward J. Koebel'.

Edward J. Koebel, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'Alisa Bennett'.

Alisa Bennett, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

EJK/AB/CT



TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Introduction	1
II	Summary of Principal Results	3
III	Notes to the Financial Statements	4
IV	Pension Expense	12
V	Required Supplemental Information	14

Schedule

A	Schedule of Employer Allocations	15
B	Schedule of Pension Amounts by Employer	24
C	Schedule of Remaining Deferred Outflows and (Inflows)	38
D	Summary of Main Plan Provisions	39
E	Statement of Actuarial Assumptions and Methods	44
F	Funding Policy of the TRS Board of Trustees	47



**REPORT OF THE ANNUAL GASB STATEMENT NO. 68
REQUIRED INFORMATION FOR THE
EMPLOYERS PARTICIPATING IN THE TEACHERS' RETIREMENT SYSTEM
OF THE STATE OF KENTUCKY**

PREPARED AS OF JUNE 30, 2017

SECTION I – INTRODUCTION

The Governmental Accounting Standards Board issued Statement No. 68 (GASB 68), *“Accounting and Financial Reporting For Pensions”* in June 2012. The Teachers' Retirement System of the State of Kentucky (TRS) is a cost-sharing multiple employer defined benefit pension plan.

This report, prepared as of June 30, 2017 (the Measurement Date), presents information to assist the employers participating in TRS in meeting the requirements of GASB 68 for the fiscal year ending June 30, 2018 (Reporting Date). Much of the material provided in this report is based on the data, assumptions and results of the annual actuarial valuation of TRS as of June 30, 2016. The results of that valuation were detailed in a report dated November 21, 2016.

The NPL shown in the GASB Statement No. 67 Report for the Teachers' Retirement System of the State of Kentucky Prepared as of June 30, 2017 and submitted November 14, 2017 is the collective NPL used for purposes of GASB 68. Please refer to that report for the derivation of the collective NPL.

Pension Expense (PE) includes amounts for service cost (the normal cost under the Entry Age Normal actuarial cost method for the year), interest on the Total Pension Liability (TPL), changes in benefit structure, amortization of increases/decreases in liability due to actuarial experience and actuarial assumption changes, and amortization of investment gains/losses. The actuarial experience and assumption change impacts are amortized over the average expected remaining service life of the Plan membership as of the Measurement Date, and investment gains/losses are amortized over five years. The development of the collective PE is shown in Section IV.

The unamortized portions of each year's experience, assumption changes and investment gains/losses are used to develop deferred inflows and outflows, which also must be included in the employer's financial statements. The development of the collective deferred inflows and outflows is shown in Section III.

These collective amounts have been allocated based on actual contributions made to TRS during the measurement period to determine the proportionate share to each participating employer. In addition, TRS receives contributions directly from the State of Kentucky for all participating employers. These employers are considered to be in a special funding situation as defined by GASB 68 and the State is treated as a non-employer contributing entity in TRS.

Schedule A of this report shows the total amount of employer contributions for the year ending June 30, 2017 from each participating employer, the amount of contributions from the State associated with each employer in special funding situation and the total amount of State contributions. Schedule A also shows the proportionate share percentages that have been determined based on these contributions.

Based on these percentages we have determined the proportionate share amounts of the NPL, PE and Deferred Inflows and Outflows for each participating employer. These amounts are shown in Schedule B.



The proportionate share amounts of each of these items associated with each employer in a special funding situation, and the total proportionate share amounts of each item for the State are also provided.

Section II of this report is a summary of the principal results of the collective amounts under GASB 68. Section III provides the results of all the necessary calculations, presented in the order laid out in GASB 68 for note disclosure and Required Supplementary Information (RSI).



SECTION II - SUMMARY OF COLLECTIVE AMOUNTS
(\$ IN THOUSANDS)

	2017
Valuation Date:	June 30, 2016
Prior Measurement Date:	June 30, 2016
Measurement Date:	June 30, 2017
Reporting Date:	June 30, 2018
Single Equivalent Interest Rate (SEIR):	
Long-Term Expected Rate of Return	7.50%
Municipal Bond Index Rate at Prior Measurement Date	3.01%
Municipal Bond Index Rate at Measurement Date	3.56%
Fiscal Year in which Plan's Fiduciary Net Position is projected to be depleted from future benefit payments for current members	2038
Single Equivalent Interest Rate at Prior Measurement Date	4.20%
Single Equivalent Interest Rate at Measurement Date	4.49%
Net Pension Liability:	
Total Pension Liability (TPL)	\$ 46,966,822
Fiduciary Net Position (FNP)	<u>18,707,699</u>
Net Pension Liability (NPL = TPL – FNP)	\$ 28,259,123
FNP as a percentage of TPL	39.83%
Pension Expense (PE):	\$2,002,200
Deferred Outflows of Resources:	\$3,494,854
Deferred Inflows of Resources:	\$2,258,355



SECTION III – NOTES TO THE FINANCIAL STATEMENTS

The material presented herein will follow the order presented in GASB 68. Paragraph numbers are provided for ease of reference. Amounts are shown in aggregate. Please refer to Schedule B of this report for the proportionate share of certain pension amounts as required by GASB 68.

Paragraphs 77 and 78(a)-(e): These paragraphs require information to be disclosed regarding the actuarial assumptions used to measure the TPL. The complete set of actuarial assumptions utilized in developing the TPL are outlined in Schedule C. The TPL was determined by an actuarial valuation as of June 30, 2016, using the following key actuarial assumptions:

Inflation	3.00 percent
Salary increases, including inflation	3.50 – 7.30 percent
Long-Term Investment Rate of Return, net of pension plan investment expense, including inflation	7.50 percent
Municipal Bond Index Rate	
Prior Measurement Date	3.01 percent
Measurement Date	3.56 percent
Year FNP is projected to be depleted	2038
Single Equivalent Interest Rate, net of pension plan investment expense, including inflation	
Prior Measurement Date	4.20 percent
Measurement Date	4.49 percent
Post-Retirement Benefit Increases	1.50% annually

Mortality rates were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on a projection of Scale BB to 2025, set forward two years for males and one year for females.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period July 1, 2010 – June 30, 2015 adopted by the Board on November 19, 2016.

The long-term expected rate of return on pension plan 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 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 table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	42.0%	4.4%
International Equity	20.0%	5.3%
Fixed Income	16.0%	1.5%
Additional Categories*	9.0%	3.6%
Real Estate	5.0%	4.4%
Private Equity	6.0%	6.7%
Cash	2.0%	0.8%
Total	100.00%	

**Includes Hedge Funds, High Yield and Non-US Developed Bonds*

Discount rate. The discount rate used to measure the TPL as of the Measurement Date was 4.49%. The projection of cash flows used to determine the discount rate was performed in accordance with GASB 67. We assumed that Plan member contributions will be made at the current contribution rates and that Employer contributions will be made at statutorily required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the 2038 plan year and, as a result, the Municipal Bond Index Rate was used in the determination of the SEIR. There was a change in the Municipal Bond Index Rate from the Prior Measurement Date to the Measurement Date, so as required under GASB 68, the SEIR of 4.49% at the Measurement Date was calculated using the Municipal Bond Index Rate as of the Measurement Date (3.56%). This change in the discount rate is considered a change in actuarial assumptions or other inputs under GASB 68.

Paragraph 78 (g): This paragraph requires disclosure of the sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the System, calculated using the discount rate of 4.49 percent, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.49 percent) or 1-percentage-point higher (5.49 percent) than the current rate (\$ thousands):

	1% Decrease (3.49%)	Current Discount Rate (4.49%)	1% Increase (5.49%)
System's net pension liability	\$35,029,551	\$28,259,123	\$22,702,413



Paragraph 80(a): This paragraph requires disclosure of the employer's proportionate share of the collective NPL and if an employer has a special funding situation the portion of the non-employer contributing entities' proportional share of the collective NPL that is associated with the employer. These amounts are shown in Schedule B.

Paragraph 80(b): This paragraph requires disclosure of the employer's proportion (percentage) of the collective NPL and the changes in proportion since the prior measurement date. These amounts are shown for all entities in Schedule A.

Paragraph 80(c): June 30, 2016 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of June 30, 2017 using standard roll forward techniques. The procedure used to determine the TPL as of June 30, 2017 is shown on page 5 of the GASB 67 report for TRS submitted on November 14, 2017.

Paragraph 80(g): Please see Section IV of this report for the development of the collective pension expense. The PE for each employer is shown in Schedule B.

Paragraph 80(h): Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce pension expense they are labeled deferred inflows. If they will increase pension expense they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions or other inputs, if any, are amortized over the average expected remaining service life of the active and inactive Plan members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five year period.



The table below provides a summary of the collective deferred inflows and outflows as of the Measurement Date. The allocation of the collective deferred inflows and outflows is provided in Schedule B.

	Collective Deferred Outflows of Resources (\$ thousands)	Collective Deferred Inflows of Resources (\$ thousands)
Differences between expected and actual experience	\$153,082	\$173,953
Changes of actuarial assumptions or other inputs	3,341,772	1,891,051
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>193,351</u>
Total	<u>\$3,494,854</u>	<u>\$2,258,355</u>

Paragraph 80(i): Collective amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Deferred Amounts to be Recognized in Fiscal Years Following the Reporting Date:	
Year 1	\$290,507
Year 2	628,128
Year 3	352,054
Year 4	(34,190)
Year 5	0
Thereafter	<u>0</u>

The allocation of these deferred amounts for each participating employer is shown in Schedule C.



Collective Deferred Outflows and Inflows for Differences between Expected and Actual Experience

	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2017	\$199,471		4.3	\$0	\$0	\$199,471	\$0	\$46,389	\$0	\$153,082	\$0
2016	0	58,035	5.5	47,483	0	0	0	0	\$10,552	\$0	\$36,931
2015	0	323,868	5.2	199,304	0	0	0	0	62,282	0	137,022
2014	0	0	5.8	0	0	0	0	0	0	0	0
Total				<u>\$246,787</u>	<u>\$0</u>	<u>\$199,471</u>	<u>\$0</u>			<u>\$153,082</u>	<u>\$173,953</u>



Collective Deferred Outflows and Inflows for Differences from Assumption Changes or Other Inputs

	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2017	\$0	\$2,321,327	4.3	\$0	\$0	\$0	\$2,321,327	\$0	\$539,843	\$0	\$1,781,484
2016	4,030,834	\$0	5.5	\$3,297,955	0	0	\$0	\$732,879	\$0	\$2,565,076	\$0
2015	1,835,828	0	5.2	1,129,740	0	0	0	353,044	0	776,696	0
2014	0	353,043	5.8	0	170,346	0	0	0	60,869	0	109,567
Total				<u>\$4,427,695</u>	<u>\$170,346</u>	<u>0</u>	<u>\$2,321,327</u>			<u>\$3,341,772</u>	<u>\$1,891,051</u>



Collective Deferred Outflows and Inflows for Differences in Investment Experience

	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2017	\$0	\$1,236,574	5.0	\$0	\$0	\$0	\$1,236,574	\$0	\$247,315	\$0	\$989,259
2016	1,561,734	0	5.0	1,249,387	0	0	0	312,347	\$0	937,040	\$0
2015	460,803	0	5.0	276,481	0	0	0	92,161		184,320	0
2014	0	1,627,260	5.0	0	650,904	0	0	0	325,452	0	325,452
Total				<u>\$1,525,868</u>	<u>\$650,904</u>	<u>\$0</u>	<u>\$1,236,574</u>			<u>\$1,121,360</u>	<u>\$1,314,711</u>
Net difference between projected and actual earnings on investments										\$0	\$193,351



Paragraph 80(j): The amount of revenue recognized for the support provided by non-employer contributing entities for the participating employers is provided in Schedule B.

Paragraphs 81(a)-(b): CMC was not required to supply this information.



SECTION IV – PENSION EXPENSE

As noted earlier, the collective Pension Expense (PE) consists of a number of different items. GASB 68 refers to the first as Service Cost which is the Normal Cost using the Entry Age Normal actuarial funding method. The second item is interest on the beginning Total Pension Liability (TPL) and the cash flow during the year at the SEIR rate of return in effect as of the previous measurement date.

The next three items refer to any changes that occurred in the TPL due to:

- benefit changes, or
- actual versus expected experience, or
- changes in actuarial assumptions or other inputs.

Benefit changes, which are reflected immediately in PE, can be positive, if there is a benefit improvement for existing Plan members, or negative if there is a benefit reduction. For the year ended June 30, 2016, there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TPL due to actual versus expected Plan experience for the year. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire Plan membership determined at the beginning of the year. The average expected remaining service life of active members is the average number of years the active members are expected to remain active. For the year ended June 30, 2017, the average expected remaining service life for the active members is 10.8 years. The average expected remaining service life of the inactive members is zero. Therefore, the number of years to use for the amortization is the weighted average for all active and inactive members, or 4.3 years.

The last item under changes in TPL are changes in actuarial assumptions or other inputs. There was a change in assumptions or other inputs since the last measurement date due to the change in the Municipal Bond Index Rate. Changes in actuarial assumptions or other inputs are recognized over the average expected remaining service life of the plan membership.

Member contributions for the year and projected earnings on the Fiduciary Net Position (FNP), again at the discount rate used to calculate the liabilities, are subtracted from the amount determined thus far. One-fifth of current period differences between projected and actual investment earnings on the FNP are recognized in the pension expense.

The current year portions of previously determined experience, assumption and earnings amounts, recognized as deferred outflows and inflows (see Section V) are included also. Deferred outflows are added to the PE while deferred inflows are subtracted from the PE. Finally, administrative expenses and other miscellaneous items are included.

The calculation of the Collective Pension Expense determined as of the measurement date is shown in the following table:



Collective Pension Expense Determined as of the Measurement Date (\$ thousands)	
Service Cost at end of year	\$1,332,587
Interest on the TPL and net cash flow	1,964,107
Current-period benefit changes	0
Expensed portion of current-period difference between expected and actual experience in the total pension liability	46,389
Expensed portion of current-period changes of assumptions or other inputs	(539,843)
Member contributions	(313,625)
Projected earnings on plan investments	(1,239,179)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(247,315)
Administrative expense	10,314
Other	(42,511)
Recognition of beginning deferred outflows of resources as pension expense	1,164,979
Recognition of beginning deferred inflows of resources as pension expense	<u>(133,703)</u>
Collective Pension Expense	<u>\$2,002,200</u>



SECTION V – REQUIRED SUPPLEMENTAL INFORMATION

Paragraphs 82:

Changes of benefit terms. None

Changes of assumptions. In the 2016 valuation, rates of withdrawal, retirement, disability and mortality were adjusted to more closely reflect actual experience. In the 2016 valuation, the Assumed Salary Scale, Price Inflation, and Wage Inflation were adjusted to reflect a decrease.



SCHEDULE A

Teachers' Retirement System of the State of Kentucky Schedule of Employer Allocations as of June 30, 2017

Code	University Employers	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
263	Eastern Kentucky University	\$ 9,018,122	\$ 7,187,273	\$ 16,205,395	15.1495%	12.0738%	27.2233%
266	Kentucky State University	1,890,626	1,506,793	3,397,419	3.1760%	2.5312%	5.7072%
269	Morehead State University	4,826,174	3,846,369	8,672,543	8.1074%	6.4615%	14.5689%
270	Murray State University	5,326,832	4,245,384	9,572,216	8.9485%	7.1318%	16.0803%
273	Western Kentucky University	9,655,712	7,695,420	17,351,132	16.2206%	12.9275%	29.1481%
500	KCTCS Central Office - University	<u>2,409,032</u>	<u>1,919,953</u>	<u>4,328,985</u>	<u>4.0469%</u>	<u>3.2253%</u>	<u>7.2722%</u>
	Total University Contributions	\$ 33,126,498	\$ 26,401,192	\$ 59,527,690	55.6489%	44.3511%	100.0000%



SCHEDULE A (continued)

Code	Non-University Employers	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
400	KCTCS Central Office	\$ 2,183,386	\$ 3,052,799	\$ 5,236,185	0.2277%	0.3184%	0.5461%
801	KY High School Athletic Association	84,540	118,203	202,743	0.0088%	0.0123%	0.0211%
805	KY School Boards Association	196,157	274,266	470,423	0.0205%	0.0286%	0.0491%
806	KY Education Association	24,012	33,573	57,585	0.0025%	0.0035%	0.0060%
807	KY Academic Association	15,463	21,620	37,083	0.0016%	0.0023%	0.0039%
809	Jefferson County Teachers' Association	7,010	9,801	16,811	<u>0.0007%</u>	<u>0.0010%</u>	<u>0.0017%</u>
		\$ 2,510,568	\$ 3,510,262	\$ 6,020,830	0.2618%	0.3661%	0.6279%

Code	State Agencies	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
301	Technical Education District - Madisonville	\$ 770,104	\$ 1,076,756	\$ 1,846,860	0.0803%	0.1123%	0.1926%
302	Technical Education District - Bowling Green	785,551	1,098,353	1,883,904	0.0819%	0.1146%	0.1965%
303	Technical Education District - Elizabethtown	3,548	4,961	8,509	0.0004%	0.0005%	0.0009%
304	Technical Education District - Frankfort	624,735	873,501	1,498,236	0.0652%	0.0911%	0.1563%
305	Technical Education District - Hazard	734,615	1,027,135	1,761,750	0.0766%	0.1071%	0.1837%
308	Adult Council on Post Secondary Education	52,192	72,975	125,167	0.0054%	0.0076%	0.0130%
316	Office of Career and Technical Education	225,885	315,831	541,716	0.0236%	0.0329%	0.0565%
317	Office of Secretary of Workforce Investment	9,788	13,686	23,474	0.0010%	0.0014%	0.0024%
318	Department for Vocational Rehabilitation	1,127,210	1,576,059	2,703,269	0.1176%	0.1644%	0.2820%
320	School for the Blind	325,471	455,072	780,543	0.0339%	0.0475%	0.0814%
330	School for the Deaf	456,307	638,006	1,094,313	0.0476%	0.0666%	0.1142%
345	Department of Education	1,839,328	2,571,739	4,411,067	0.1919%	0.2683%	0.4602%
728	Department of Corrections	9,163	12,812	21,975	0.0010%	0.0013%	0.0023%
896	Education Professional Standards Board	127,642	178,468	306,110	<u>0.0133%</u>	<u>0.0186%</u>	<u>0.0319%</u>
		\$ 7,091,539	\$ 9,915,354	\$ 17,006,893	0.7397%	1.0342%	1.7739%



SCHEDULE A (continued)

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
1	Adair County Schools	\$ -	\$ 3,116,519	\$ 3,116,519	0.0000%	0.3251%	0.3251%
2	Allen County Schools	-	3,716,823	3,716,823	0.0000%	0.3877%	0.3877%
3	Anderson County Schools	-	4,291,542	4,291,542	0.0000%	0.4477%	0.4477%
4	Ballard County Schools	-	1,640,192	1,640,192	0.0000%	0.1711%	0.1711%
5	Barren County Schools	-	6,271,624	6,271,624	0.0000%	0.6542%	0.6542%
6	Bath County Schools	-	2,613,892	2,613,892	0.0000%	0.2727%	0.2727%
7	Bell County Schools	-	3,233,713	3,233,713	0.0000%	0.3373%	0.3373%
8	Boone County Schools	-	29,035,488	29,035,488	0.0000%	3.0287%	3.0287%
9	Bourbon County Schools	-	3,546,841	3,546,841	0.0000%	0.3700%	0.3700%
10	Boyd County Schools	-	4,164,970	4,164,970	0.0000%	0.4344%	0.4344%
11	Boyle County Schools	-	4,022,043	4,022,043	0.0000%	0.4195%	0.4195%
12	Bracken County Schools	-	1,534,055	1,534,055	0.0000%	0.1600%	0.1600%
13	Breathitt County Schools	-	2,465,130	2,465,130	0.0000%	0.2571%	0.2571%
14	Breckinridge County Schools	-	3,417,717	3,417,717	0.0000%	0.3565%	0.3565%
15	Bullitt County Schools	-	17,369,126	17,369,126	0.0000%	1.8118%	1.8118%
16	Butler County Schools	-	2,563,640	2,563,640	0.0000%	0.2674%	0.2674%
17	Caldwell County Schools	-	2,194,612	2,194,612	0.0000%	0.2289%	0.2289%
18	Calloway County Schools	-	3,878,501	3,878,501	0.0000%	0.4046%	0.4046%
19	Campbell County Schools	-	6,279,811	6,279,811	0.0000%	0.6550%	0.6550%
20	Carlisle County Schools	-	1,030,168	1,030,168	0.0000%	0.1075%	0.1075%
21	Carroll County Schools	-	2,765,046	2,765,046	0.0000%	0.2884%	0.2884%
22	Carter County Schools	-	5,263,107	5,263,107	0.0000%	0.5490%	0.5490%
23	Casey County Schools	-	2,602,901	2,602,901	0.0000%	0.2715%	0.2715%
24	Christian County Schools	-	10,448,332	10,448,332	0.0000%	1.0899%	1.0899%
25	Clark County Schools	-	6,739,669	6,739,669	0.0000%	0.7030%	0.7030%
26	Clay County Schools	-	4,163,680	4,163,680	0.0000%	0.4343%	0.4343%
27	Clinton County Schools	-	2,181,420	2,181,420	0.0000%	0.2275%	0.2275%
28	Crittenden County Schools	-	1,535,629	1,535,629	0.0000%	0.1602%	0.1602%
29	Cumberland County Schools	-	1,148,305	1,148,305	0.0000%	0.1198%	0.1198%



SCHEDULE A (continued)

Code	and Educational Cooperatives	Employer	State	Total	Employer	State	Total
30	Daviess County Schools	-	15,188,017	15,188,017	0.0000%	1.5843%	1.5843%
31	Edmonson County Schools	-	2,355,483	2,355,483	0.0000%	0.2457%	0.2457%
32	Elliott County Schools	-	1,397,574	1,397,574	0.0000%	0.1458%	0.1458%
33	Estill County Schools	-	2,993,829	2,993,829	0.0000%	0.3123%	0.3123%
34	Fayette County Schools	-	70,468,176	70,468,176	0.0000%	7.3505%	7.3505%
35	Fleming County Schools	-	2,750,504	2,750,504	0.0000%	0.2869%	0.2869%
36	Floyd County Schools	-	7,246,123	7,246,123	0.0000%	0.7558%	0.7558%
37	Franklin County Schools	-	7,981,376	7,981,376	0.0000%	0.8325%	0.8325%
38	Fulton County Schools	-	803,302	803,302	0.0000%	0.0838%	0.0838%
39	Gallatin County Schools	-	2,142,503	2,142,503	0.0000%	0.2235%	0.2235%
40	Garrard County Schools	-	3,091,972	3,091,972	0.0000%	0.3225%	0.3225%
41	Grant County Schools	-	4,580,186	4,580,186	0.0000%	0.4778%	0.4778%
42	Graves County Schools	-	5,489,746	5,489,746	0.0000%	0.5726%	0.5726%
43	Grayson County Schools	-	5,090,412	5,090,412	0.0000%	0.5310%	0.5310%
44	Green County Schools	-	2,117,493	2,117,493	0.0000%	0.2209%	0.2209%
45	Greenup County Schools	-	3,635,707	3,635,707	0.0000%	0.3792%	0.3792%
46	Hancock County Schools	-	2,354,661	2,354,661	0.0000%	0.2456%	0.2456%
47	Hardin County Schools	-	19,230,665	19,230,665	0.0000%	2.0060%	2.0060%
48	Harlan County Schools	-	4,389,123	4,389,123	0.0000%	0.4578%	0.4578%
49	Harrison County Schools	-	3,532,716	3,532,716	0.0000%	0.3685%	0.3685%
50	Hart County Schools	-	3,416,592	3,416,592	0.0000%	0.3564%	0.3564%
51	Henderson County Schools	-	9,160,080	9,160,080	0.0000%	0.9555%	0.9555%
52	Henry County Schools	-	2,797,259	2,797,259	0.0000%	0.2918%	0.2918%
53	Hickman County Schools	-	1,145,122	1,145,122	0.0000%	0.1194%	0.1194%
54	Hopkins County Schools	-	8,907,732	8,907,732	0.0000%	0.9292%	0.9292%
55	Jackson County Schools	-	2,930,484	2,930,484	0.0000%	0.3057%	0.3057%
56	Jefferson County Schools	-	178,230,429	178,230,429	0.0000%	18.5913%	18.5913%
57	Jessamine County Schools	-	10,494,930	10,494,930	0.0000%	1.0947%	1.0947%
58	Johnson County Schools	-	4,901,700	4,901,700	0.0000%	0.5113%	0.5113%



SCHEDULE A (continued)

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
59	Kenton County Schools	-	18,689,254	18,689,254	0.0000%	1.9495%	1.9495%
60	Knott Counts Schools	-	2,977,578	2,977,578	0.0000%	0.3106%	0.3106%
61	Knox County Schools	-	5,588,043	5,588,043	0.0000%	0.5829%	0.5829%
62	Larue County Schools	-	3,290,056	3,290,056	0.0000%	0.3432%	0.3432%
63	Laurel County Schools	-	10,972,140	10,972,140	0.0000%	1.1445%	1.1445%
64	Lawrence County Schools	-	3,264,828	3,264,828	0.0000%	0.3406%	0.3406%
65	Lee County Schools	-	1,002,586	1,002,586	0.0000%	0.1046%	0.1046%
66	Leslie County Schools	-	2,222,255	2,222,255	0.0000%	0.2318%	0.2318%
67	Letcher County Schools	-	4,026,296	4,026,296	0.0000%	0.4200%	0.4200%
68	Lewis County Schools	-	2,628,867	2,628,867	0.0000%	0.2742%	0.2742%
69	Lincoln County Schools	-	4,548,691	4,548,691	0.0000%	0.4745%	0.4745%
70	Livingston County Schools	-	1,669,342	1,669,342	0.0000%	0.1741%	0.1741%
71	Logan County Schools	-	4,656,419	4,656,419	0.0000%	0.4857%	0.4857%
72	Lyon County Schools	-	1,047,687	1,047,687	0.0000%	0.1093%	0.1093%
73	Madison County Schools	-	13,678,301	13,678,301	0.0000%	1.4268%	1.4268%
74	Magoffin County Schools	-	2,537,873	2,537,873	0.0000%	0.2647%	0.2647%
75	Marion County Schools	-	4,588,278	4,588,278	0.0000%	0.4786%	0.4786%
76	Marshall County Schools	-	6,177,930	6,177,930	0.0000%	0.6444%	0.6444%
77	Martin County Schools	-	2,174,684	2,174,684	0.0000%	0.2268%	0.2268%
78	Mason County Schools	-	3,596,527	3,596,527	0.0000%	0.3752%	0.3752%
79	McCracken County Schools	-	9,143,753	9,143,753	0.0000%	0.9538%	0.9538%
80	McCreary County Schools	-	3,509,567	3,509,567	0.0000%	0.3661%	0.3661%
81	McLean County Schools	-	2,021,562	2,021,562	0.0000%	0.2109%	0.2109%
82	Meade County Schools	-	5,573,590	5,573,590	0.0000%	0.5814%	0.5814%
83	Menifee County Schools	-	1,132,818	1,132,818	0.0000%	0.1182%	0.1182%
84	Mercer County Schools	-	3,862,581	3,862,581	0.0000%	0.4029%	0.4029%
85	Metcalf County Schools	-	1,988,380	1,988,380	0.0000%	0.2074%	0.2074%
86	Monroe County Schools	-	2,390,015	2,390,015	0.0000%	0.2493%	0.2493%
87	Montgomery County Schools	-	6,138,719	6,138,719	0.0000%	0.6403%	0.6403%



SCHEDULE A (continued)

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
88	Morgan County Schools	-	2,254,143	2,254,143	0.0000%	0.2351%	0.2351%
89	Muhlenberg County Schools	-	5,810,089	5,810,089	0.0000%	0.6061%	0.6061%
90	Nelson County Schools	-	5,993,246	5,993,246	0.0000%	0.6252%	0.6252%
91	Nicholas County Schools	-	1,293,656	1,293,656	0.0000%	0.1349%	0.1349%
92	Ohio County Schools	-	4,897,906	4,897,906	0.0000%	0.5109%	0.5109%
93	Oldham County Schools	-	16,518,089	16,518,089	0.0000%	1.7230%	1.7230%
94	Owen County Schools	-	2,151,620	2,151,620	0.0000%	0.2244%	0.2244%
95	Owsley County Schools	-	851,083	851,083	0.0000%	0.0888%	0.0888%
96	Pendleton County Schools	-	2,827,804	2,827,804	0.0000%	0.2950%	0.2950%
97	Perry County Schools	-	4,802,384	4,802,384	0.0000%	0.5009%	0.5009%
98	Pike County Schools	-	11,103,259	11,103,259	0.0000%	1.1582%	1.1582%
99	Powell County Schools	-	2,928,842	2,928,842	0.0000%	0.3055%	0.3055%
100	Pulaski County Schools	-	9,791,017	9,791,017	0.0000%	1.0213%	1.0213%
101	Robertson County Schools	-	463,583	463,583	0.0000%	0.0484%	0.0484%
102	Rockcastle County Schools	-	3,764,059	3,764,059	0.0000%	0.3926%	0.3926%
103	Rowan County Schools	-	3,724,770	3,724,770	0.0000%	0.3885%	0.3885%
104	Russell County Schools	-	3,857,973	3,857,973	0.0000%	0.4024%	0.4024%
105	Scott County Schools	-	11,139,126	11,139,126	0.0000%	1.1619%	1.1619%
106	Shelby County Schools	-	9,968,820	9,968,820	0.0000%	1.0398%	1.0398%
107	Simpson County Schools	-	3,861,468	3,861,468	0.0000%	0.4028%	0.4028%
108	Spencer County Schools	-	3,586,178	3,586,178	0.0000%	0.3741%	0.3741%
109	Taylor County Schools	-	3,292,114	3,292,114	0.0000%	0.3434%	0.3434%
110	Todd County Schools	-	2,253,193	2,253,193	0.0000%	0.2350%	0.2350%
111	Trigg County Schools	-	2,772,158	2,772,158	0.0000%	0.2892%	0.2892%
112	Trimble County Schools	-	1,619,125	1,619,125	0.0000%	0.1689%	0.1689%
113	Union County Schools	-	2,950,001	2,950,001	0.0000%	0.3077%	0.3077%
114	Warren County Schools	-	18,028,781	18,028,781	0.0000%	1.8806%	1.8806%
115	Washington County Schools	-	2,388,912	2,388,912	0.0000%	0.2492%	0.2492%
116	Wayne County Schools	-	3,951,609	3,951,609	0.0000%	0.4122%	0.4122%



SCHEDULE A (continued)

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
117	Webster County Schools	-	2,570,285	2,570,285	0.0000%	0.2681%	0.2681%
118	Whitley County Schools	-	5,545,319	5,545,319	0.0000%	0.5784%	0.5784%
119	Wolfe County Schools	-	1,997,416	1,997,416	0.0000%	0.2084%	0.2084%
120	Woodford County Schools	-	5,098,179	5,098,179	0.0000%	0.5318%	0.5318%
122	Anchorage City Schools	-	1,011,797	1,011,797	0.0000%	0.1055%	0.1055%
124	Ashland City Schools	-	4,155,544	4,155,544	0.0000%	0.4335%	0.4335%
125	Augusta City Schools	-	404,680	404,680	0.0000%	0.0422%	0.0422%
126	Barbourville City Schools	-	820,762	820,762	0.0000%	0.0856%	0.0856%
127	Bardstown City Schools	-	3,934,163	3,934,163	0.0000%	0.4104%	0.4104%
128	Beechwood Independent Schools	-	1,913,021	1,913,021	0.0000%	0.1995%	0.1995%
129	Bellevue City Schools	-	1,155,488	1,155,488	0.0000%	0.1205%	0.1205%
131	Berea City Schools	-	1,496,425	1,496,425	0.0000%	0.1561%	0.1561%
134	Bowling Green City Schools	-	5,641,778	5,641,778	0.0000%	0.5885%	0.5885%
136	Burgin City Schools	-	639,578	639,578	0.0000%	0.0667%	0.0667%
140	Campbellsville City Schools	-	1,645,078	1,645,078	0.0000%	0.1716%	0.1716%
144	Caverna City Schools	-	1,060,853	1,060,853	0.0000%	0.1107%	0.1107%
147	Cloverport City Schools	-	522,243	522,243	0.0000%	0.0545%	0.0545%
150	Corbin City Schools	-	3,635,747	3,635,747	0.0000%	0.3792%	0.3792%
151	Covington City Schools	-	6,348,290	6,348,290	0.0000%	0.6622%	0.6622%
154	Danville City Schools	-	3,188,223	3,188,223	0.0000%	0.3326%	0.3326%
155	Dawson Springs City Schools	-	829,887	829,887	0.0000%	0.0866%	0.0866%
156	Dayton City Schools	-	1,318,734	1,318,734	0.0000%	0.1376%	0.1376%
158	East Bernstadt City Schools	-	633,372	633,372	0.0000%	0.0661%	0.0661%
160	Elizabethtown City Schools	-	3,399,617	3,399,617	0.0000%	0.3546%	0.3546%
161	Eminence Independent Schools	-	1,060,861	1,060,861	0.0000%	0.1107%	0.1107%
162	Erlanger-Elsmere City Schools	-	3,407,510	3,407,510	0.0000%	0.3554%	0.3554%
163	Fairview Independent Schools	-	965,718	965,718	0.0000%	0.1007%	0.1007%
166	Fort Thomas Independent Schools	-	4,493,723	4,493,723	0.0000%	0.4687%	0.4687%
167	Frankfort City Schools	-	1,319,392	1,319,392	0.0000%	0.1376%	0.1376%



SCHEDULE A (continued)

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
170	Fulton City Schools	-	522,812	522,812	0.0000%	0.0545%	0.0545%
173	Glasgow City Schools	-	3,171,741	3,171,741	0.0000%	0.3308%	0.3308%
180	Harlan City Schools	-	886,649	886,649	0.0000%	0.0925%	0.0925%
182	Hazard Independent Schools	-	1,353,736	1,353,736	0.0000%	0.1412%	0.1412%
190	Jackson City Schools	-	349,634	349,634	0.0000%	0.0365%	0.0365%
191	Jenkins City Schools	-	663,544	663,544	0.0000%	0.0692%	0.0692%
206	Ludlow City Schools	-	1,338,253	1,338,253	0.0000%	0.1396%	0.1396%
210	Mayfield City Schools	-	2,164,729	2,164,729	0.0000%	0.2258%	0.2258%
214	Middlesboro City Schools	-	1,520,386	1,520,386	0.0000%	0.1586%	0.1586%
221	Murray City Schools	-	2,150,397	2,150,397	0.0000%	0.2243%	0.2243%
222	Newport City Schools	-	2,824,676	2,824,676	0.0000%	0.2946%	0.2946%
224	Owensboro City Schools	-	7,107,917	7,107,917	0.0000%	0.7414%	0.7414%
226	Paducah City Schools	-	4,055,239	4,055,239	0.0000%	0.4230%	0.4230%
227	Paintsville City Schools	-	1,240,923	1,240,923	0.0000%	0.1294%	0.1294%
228	Paris City Schools	-	902,491	902,491	0.0000%	0.0941%	0.0941%
230	Pikeville City Schools	-	2,071,432	2,071,432	0.0000%	0.2161%	0.2161%
231	Pineville City Schools	-	626,677	626,677	0.0000%	0.0654%	0.0654%
235	Raceland City Schools	-	1,367,600	1,367,600	0.0000%	0.1427%	0.1427%
238	Russell City Schools	-	3,120,922	3,120,922	0.0000%	0.3255%	0.3255%
239	Russellville City Schools	-	1,329,232	1,329,232	0.0000%	0.1387%	0.1387%
240	Science Hill City Schools	-	566,959	566,959	0.0000%	0.0591%	0.0591%
245	Silver Grove City Schools	-	355,861	355,861	0.0000%	0.0371%	0.0371%
246	Somerset City Schools	-	2,186,094	2,186,094	0.0000%	0.2280%	0.2280%
247	Southgate City Schools	-	311,284	311,284	0.0000%	0.0325%	0.0325%
258	Walton-Verona Independent Schools	-	2,412,908	2,412,908	0.0000%	0.2517%	0.2517%
259	West Point City Schools	-	215,298	215,298	0.0000%	0.0225%	0.0225%
260	Williamsburg City Schools	-	1,022,986	1,022,986	0.0000%	0.1067%	0.1067%
261	Williamstown City Schools	-	993,421	993,421	0.0000%	0.1036%	0.1036%
870	Ohio Valley Educational Cooperative	-	598,272	598,272	0.0000%	0.0624%	0.0624%



SCHEDULE A (continued)

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
871	West Kentucky Educational Cooperative	-	298,691	298,691	0.0000%	0.0312%	0.0312%
872	Southeast South-Central Educational Cooperative	-	56,198	56,198	0.0000%	0.0059%	0.0059%
890	Green River Regional Educational Cooperative	-	317,457	317,457	0.0000%	0.0331%	0.0331%
891	Central KY Special Education Cooperative	-	168,030	168,030	0.0000%	0.0175%	0.0175%
892	KY Valley Educational Cooperative	-	228,710	228,710	0.0000%	0.0239%	0.0239%
894	KY Educational Development Corporation	-	518,260	518,260	0.0000%	0.0541%	0.0541%
895	Northern KY Cooperative for Educational Services	-	417,861	417,861	<u>0.0000%</u>	<u>0.0436%</u>	<u>0.0436%</u>
		\$ -	\$935,652,983	935,652,983	0.0000%	97.5982%	97.5982%
	Total Non-University Contributions	<u>9,602,107</u>	<u>949,078,599</u>	<u>958,680,706</u>	<u>1.0015%</u>	<u>98.9985%</u>	<u>100.0000%</u>



SCHEDULE B

Teachers' Retirement System of the State of Kentucky Schedules of Pension Amounts by Employer As of and for the fiscal year ended June 30, 2017

					Deferred Outflows of Resources				
					Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions			Total Deferred Outflows of Resources	
		June 30, 2017	Difference Between Expected and Actual Experience	Change of Assumptions					
Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability							
Code	Employer								
<u>University Employers</u>									
263	Eastern Kentucky University	\$ 193,364,393	\$ 154,107,781	\$ 347,472,174	\$ 1,114,890	\$ 23,940,619	\$ 10,670,638	\$ 35,726,147	
266	Kentucky State University	40,538,352	32,308,289	72,846,641	233,734	5,019,090	-	5,252,824	
269	Morehead State University	103,481,662	82,472,921	185,954,583	596,649	12,812,158	5,154,845	18,563,652	
270	Murray State University	114,216,642	91,028,498	205,245,140	658,544	14,141,265	2,583,416	17,383,225	
273	Western Kentucky University	207,035,441	165,003,342	372,038,783	1,193,715	25,633,244	2,477,778	29,304,733	
500	KCTCS Central Office - University	51,653,884	41,167,172	92,821,056	297,823	6,395,314	-	6,693,137	
Total University		\$ 710,290,374	\$ 566,088,003	\$ 1,276,378,377	\$ 4,095,355	\$ 87,941,690	\$ 20,886,677	\$ 112,923,718	

CodeEmployer		Deferred Inflows of Resources									
		Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	
										Total Pension Expense	
University Employers											
263	Eastern Kentucky University	\$ 4,089,520	\$ 13,423,668	\$ 1,496,101	\$ 87,634,380	\$ 106,643,669	\$ 12,337,490	\$ 9,832,747	\$ 22,170,237	\$ (22,700,429)	\$ (530,192)
266	Kentucky State University	857,357	2,814,238	313,654	23,826,558	27,811,807	2,586,524	2,061,409	4,647,933	(7,640,033)	(2,992,100)
269	Morehead State University	2,188,564	7,183,864	800,659	50,543,620	60,716,707	6,602,580	5,262,131	11,864,711	(13,596,307)	(1,731,596)
270	Murray State University	2,415,601	7,929,103	883,718	58,576,242	69,804,664	7,287,520	5,808,014	13,095,534	(16,564,661)	(3,469,127)
273	Western Kentucky University	4,378,653	14,372,734	1,601,876	93,309,399	113,662,662	13,209,761	10,527,932	23,737,693	(27,578,322)	(3,840,629)
500	KCTCS Central Office - University	1,092,443	3,585,896	399,657	31,086,889	36,164,885	3,295,742	2,626,645	5,922,387	(9,517,691)	(3,595,304)
Total University		\$ 15,022,138	\$ 49,309,503	\$ 5,495,665	\$ 344,977,088	\$ 414,804,394	\$ 45,319,617	\$ 36,118,878	\$ 81,438,495	\$ (97,597,443)	\$ (16,158,948)



SCHEDULE B (continued)

Code	Employer				Deferred Outflows of Resources			
		June 30, 2017			Difference Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
		Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability				
<u>Non-University Employers</u>								
400	KCTCS Central Office	\$ 61,453,199	\$ 85,923,311	\$ 147,376,510	\$ 331,885	\$ 7,250,974	\$ -	\$ 7,582,859
801	KY High School Athletic Association	2,379,338	3,326,972	5,706,310	12,850	280,742	28,287	321,879
805	KY School Boards Association	5,520,939	7,719,493	13,240,432	29,816	651,426	429,661	1,110,903
806	KY Education Association	675,918	944,936	1,620,854	3,650	79,753	77,694	161,097
807	KY Academic Association	435,232	608,461	1,043,693	2,351	51,354	3,455	57,160
809	Jefferson County Teachers' Association	197,244	275,764	473,008	1,065	23,273	6,647	30,985
	Total - Other Employers	\$ 70,661,870	\$ 98,798,937	\$ 169,460,807	\$ 381,617	\$ 8,337,522	\$ 545,744	\$ 9,264,883

		Deferred Inflows of Resources										
							Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions					
		Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense	Employer Contributions and Proportionate Share of Contributions	Total Pension Expense	
Code	Employer											
<u>Non-University Employers</u>												
400	KCTCS Central Office	\$ 334,696	\$ 4,105,058	\$ 417,861	\$ 69,087,830	\$ 73,945,445	\$ 4,374,487	\$ 6,116,422	\$ 10,490,909	\$ (21,590,013)	\$ (11,099,104)	
801	KY High School Athletic Association	12,959	158,939	16,179	1,506,320	1,694,397	169,373	236,829	406,202	(442,891)	(36,689)	
805	KY School Boards Association	30,069	368,797	37,541	4,317,916	4,754,323	393,006	549,510	942,516	(1,162,799)	(220,283)	
806	KY Education Association	3,681	45,151	4,596	551,493	604,921	48,115	67,265	115,380	(145,176)	(29,796)	
807	KY Academic Association	2,370	29,073	2,959	294,317	328,719	30,982	43,313	74,295	(87,594)	(13,299)	
809	Jefferson County Teachers' Association	1,074	13,176	1,341	130,880	146,471	14,060	19,630	33,690	(37,525)	(3,835)	
	Total - Other Employers	\$ 384,849	\$ 4,720,194	\$ 480,477	\$ 75,888,756	\$ 81,474,276	\$ 5,030,023	\$ 7,032,969	\$ 12,062,992	\$ (23,465,998)	\$ (11,403,006)	



SCHEDULE B (continued)

Code	Employer				Deferred Outflows of Resources			
		June 30, 2017			Difference Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
		Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability				
<u>State Agencies</u>								
301	Technical Education District - Madisonville	\$ 21,675,238	\$ 30,305,939	\$ 51,981,177	\$ 117,060	\$ 2,557,500	\$ 3,039,195	\$ 5,713,755
302	Technical Education District - Bowling Green	22,109,930	30,913,860	53,023,790	119,407	2,608,791	614,970	3,343,168
303	Technical Education District - Elizabethtown	99,836	139,501	239,337	539	11,780	718,664	730,983
304	Technical Education District - Frankfort	17,583,575	24,585,327	42,168,902	94,962	2,074,718	-	2,169,680
305	Technical Education District - Hazard	20,676,337	28,909,312	49,585,649	111,665	2,439,638	-	2,551,303
308	Adult Council on Post Secondary Education	1,468,941	2,053,926	3,522,867	7,933	173,323	-	181,256
316	Office of Career and Technical Education	6,357,674	8,889,195	15,246,869	34,335	750,153	4,663,871	5,448,359
317	Office of Secretary of Workforce Investment	275,494	385,314	660,808	1,488	32,506	437	34,431
318	Department for Vocational Rehabilitation	31,726,041	44,359,362	76,085,403	171,340	3,743,413	827,333	4,742,086
320	School for the Blind	9,160,642	12,808,439	21,969,081	49,473	1,080,881	-	1,130,354
330	School for the Deaf	12,842,977	17,957,016	30,799,993	69,360	1,515,366	-	1,584,726
345	Department of Education	51,769,093	72,383,370	124,152,463	279,585	6,108,328	485,738	6,873,651
728	Department of Corrections	257,955	360,489	618,444	1,393	30,437	29,590	61,420
896	Education Professional Standards Board	3,592,483	5,023,108	8,615,591	19,402	423,883	266,722	710,007
	Total - State Agencies	\$ 199,596,216	\$ 279,074,158	\$ 478,670,374	\$ 1,077,942	\$ 23,550,717	\$ 10,646,520	\$ 35,275,179



SCHEDULE B (continued)

		Deferred Inflows of Resources					Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Pension Expense				
Code	Employer	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Pension Expense	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Pension Expense	Total Pension Expense
State Agencies											
301	Technical Education District - Madisonville	\$ 118,051	\$ 1,447,900	\$ 147,384	\$ 9,015,330	\$ 10,728,665	\$ 1,542,945	\$ 2,157,318	\$ 3,700,263	\$ (1,404,362)	\$ 2,295,901
302	Technical Education District - Bowling Green	120,419	1,476,938	150,340	9,179,740	10,927,437	1,573,888	2,200,593	3,774,481	(2,532,380)	1,242,101
303	Technical Education District - Elizabethton	544	6,669	679	20,572,304	20,580,196	7,126	9,930	17,056	(5,876,394)	(5,859,338)
304	Technical Education District - Frankfort	95,766	1,174,578	119,562	15,629,350	17,019,256	1,251,681	1,750,098	3,001,779	(5,048,472)	(2,046,693)
305	Technical Education District - Hazard	112,611	1,381,174	140,592	12,049,351	13,683,728	1,471,838	2,057,900	3,529,738	(3,818,310)	(288,572)
308	Adult Council on Post Secondary Education	8,000	98,125	9,988	1,851,955	1,968,068	104,566	146,208	250,774	(569,711)	(318,937)
316	Office of Career and Technical Education	34,626	424,691	43,230	4,705,033	5,207,580	452,569	632,774	1,085,343	510,877	1,596,220
317	Office of Secretary of Workforce Investment	1,500	18,403	1,873	329,641	351,417	19,611	27,428	47,039	(121,338)	(74,299)
318	Department for Vocational Rehabilitation	172,791	2,119,291	215,726	27,291,983	29,799,791	2,258,408	3,157,706	5,416,114	(7,868,145)	(2,452,031)
320	School for the Blind	49,892	611,929	62,289	8,023,145	8,747,255	652,078	911,764	1,563,842	(2,433,064)	(869,222)
330	School for the Deaf	69,947	857,908	87,328	10,415,724	11,430,907	914,242	1,278,264	2,192,506	(3,205,825)	(1,013,319)
345	Department of Education	281,953	3,458,162	352,012	35,193,476	39,285,603	3,685,166	5,152,586	8,837,752	(10,428,786)	(1,591,034)
728	Department of Corrections	1,405	17,231	1,754	202,328	222,718	18,363	25,661	44,024	(63,452)	(19,428)
896	Education Professional Standards Board	19,566	239,977	24,428	2,837,171	3,121,142	255,730	357,568	613,298	(716,839)	(103,541)
	Total - State Agencies	\$ 1,087,071	\$ 13,332,976	\$ 1,357,185	\$ 157,296,531	\$ 173,073,763	\$ 14,208,211	\$ 19,865,798	\$ 34,074,009	\$ (43,576,201)	\$ (9,502,192)



SCHEDULE B (continued)

					Deferred Outflows of Resources			
					Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		Total Deferred Outflows of Resources	
								Difference Between Expected and Actual Experience
Code	Employer	Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability				
Local School Districts and Educational Cooperatives								
1	Adair County Schools	\$ -	\$ 87,716,584	\$ 87,716,584				
2	Allen County Schools	-	104,612,639	104,612,639				
3	Anderson County Schools	-	120,788,524	120,788,524				
4	Ballard County Schools	-	46,164,237	46,164,237				
5	Barren County Schools	-	176,519,224	176,519,224				
6	Bath County Schools	-	73,569,801	73,569,801				
7	Bell County Schools	-	91,015,225	91,015,225				
8	Boone County Schools	-	817,224,215	817,224,215				
9	Bourbon County Schools	-	99,828,329	99,828,329				
10	Boyd County Schools	-	117,225,992	117,225,992				
11	Boyle County Schools	-	113,203,135	113,203,135				
12	Bracken County Schools	-	43,176,978	43,176,978				
13	Breathitt County Schools	-	69,382,889	69,382,889				
14	Breckinridge County Schools	-	96,194,023	96,194,023				
15	Bullitt County Schools	-	488,866,344	488,866,344				
16	Butler County Schools	-	72,155,366	72,155,366				
17	Caldwell County Schools	-	61,768,898	61,768,898				
18	Calloway County Schools	-	109,163,279	109,163,279				
19	Campbell County Schools	-	176,749,656	176,749,656				
20	Carlisle County Schools	-	28,994,847	28,994,847				
21	Carroll County Schools	-	77,824,170	77,824,170				
22	Carter County Schools	-	148,133,916	148,133,916				
23	Casey County Schools	-	73,260,579	73,260,579				
24	Christian County Schools	-	294,075,755	294,075,755				
25	Clark County Schools	-	189,692,739	189,692,739				
26	Clay County Schools	-	117,189,836	117,189,836				
27	Clinton County Schools	-	61,397,615	61,397,615				
28	Crittenden County Schools	-	43,221,229	43,221,229				
29	Cumberland County Schools	-	32,319,931	32,319,931				
30	Daviess County Schools	-	427,477,363	427,477,363				
31	Edmonson County Schools	-	66,296,602	66,296,602				
32	Elliott County Schools	-	39,335,714	39,335,714				
33	Estill County Schools	-	84,263,333	84,263,333				
34	Fayette County Schools	-	1,983,376,595	1,983,376,595				
35	Fleming County Schools	-	77,414,842	77,414,842				
36	Floyd County Schools	-	203,947,183	203,947,183				
37	Franklin County Schools	-	224,641,329	224,641,329				
38	Fulton County Schools	-	22,609,381	22,609,381				
39	Gallatin County Schools	-	60,302,386	60,302,386				
40	Garrard County Schools	-	87,025,826	87,025,826				



SCHEDULE B (continued)

Code	Employer	June 30, 2017			Deferred Outflows of Resources			
		Employer's	State's	Total	Difference Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
		Proportionate Share of Net Pension Liability	Proportionate Share of Net Pension Liability					
41	Grant County Schools	-	128,912,489	128,912,489				
42	Graves County Schools	-	154,512,637	154,512,637				
43	Grayson County Schools	-	143,273,245	143,273,245				
44	Green County Schools	-	59,598,406	59,598,406				
45	Greenup County Schools	-	102,329,629	102,329,629				
46	Hancock County Schools	-	66,273,667	66,273,667				
47	Hardin County Schools	-	541,260,627	541,260,627				
48	Harlan County Schools	-	123,534,828	123,534,828				
49	Harrison County Schools	-	99,430,873	99,430,873				
50	Hart County Schools	-	96,162,453	96,162,453				
51	Henderson County Schools	-	257,816,883	257,816,883				
52	Henry County Schools	-	78,730,791	78,730,791				
53	Hickman County Schools	-	32,230,348	32,230,348				
54	Hopkins County Schools	-	250,714,485	250,714,485				
55	Jackson County Schools	-	82,480,583	82,480,583				
56	Jefferson County Schools	-	5,016,422,679	5,016,422,679				
57	Jessamine County Schools	-	295,387,116	295,387,116				
58	Johnson County Schools	-	137,961,692	137,961,692				
59	Kenton County Schools	-	526,022,122	526,022,122				
60	Knott County Schools	-	83,805,975	83,805,975				
61	Knox County Schools	-	157,279,448	157,279,448				
62	Larue County Schools	-	92,601,000	92,601,000				
63	Laurel County Schools	-	308,818,587	308,818,587				
64	Lawrence County Schools	-	91,890,815	91,890,815				
65	Lee County Schools	-	28,218,554	28,218,554				
66	Leslie County Schools	-	62,546,811	62,546,811				
67	Letcher County Schools	-	113,322,939	113,322,939				
68	Lewis County Schools	-	73,991,272	73,991,272				
69	Lincoln County Schools	-	128,026,106	128,026,106				
70	Livingston County Schools	-	46,984,783	46,984,783				
71	Logan County Schools	-	131,058,157	131,058,157				
72	Lyon County Schools	-	29,487,822	29,487,822				
73	Madison County Schools	-	384,985,477	384,985,477				
74	Magoffin County Schools	-	71,430,339	71,430,339				
75	Marion County Schools	-	129,140,223	129,140,223				
76	Marshall County Schools	-	173,882,200	173,882,200				
77	Martin County Schools	-	61,207,927	61,207,927				
78	Mason County Schools	-	101,226,844	101,226,844				
79	McCracken County Schools	-	257,357,367	257,357,367				
80	McCreary County Schools	-	98,779,239	98,779,239				



SCHEDULE B (continued)

Code Employer		June 30, 2017			Deferred Outflows of Resources			
		Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability	Difference Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
81	McLean County Schools	-	56,898,243	56,898,243				
82	Meade County Schools	-	156,872,548	156,872,548				
83	Menifee County Schools	-	31,883,890	31,883,890				
84	Mercer County Schools	-	108,715,095	108,715,095				
85	Metcalfe County Schools	-	55,964,370	55,964,370				
86	Monroe County Schools	-	67,268,791	67,268,791				
87	Montgomery County Schools	-	172,778,606	172,778,606				
88	Morgan County Schools	-	63,444,526	63,444,526				
89	Muhlenberg County Schools	-	163,528,921	163,528,921				
90	Nelson County Schools	-	168,684,244	168,684,244				
91	Nicholas County Schools	-	36,410,785	36,410,785				
92	Ohio County Schools	-	137,855,110	137,855,110				
93	Oldham County Schools	-	464,913,222	464,913,222				
94	Owen County Schools	-	60,558,992	60,558,992				
95	Owsley County Schools	-	23,954,201	23,954,201				
96	Pendleton County Schools	-	79,590,461	79,590,461				
97	Perry County Schools	-	135,166,549	135,166,549				
98	Pike County Schools	-	312,509,016	312,509,016				
99	Powell County Schools	-	82,434,442	82,434,442				
100	Pulaski County Schools	-	275,575,036	275,575,036				
101	Robertson County Schools	-	13,047,776	13,047,776				
102	Rockcastle County Schools	-	105,942,079	105,942,079				
103	Rowan County Schools	-	104,836,326	104,836,326				
104	Russell County Schools	-	108,585,308	108,585,308				
105	Scott County Schools	-	313,518,441	313,518,441				
106	Shelby County Schools	-	280,579,526	280,579,526				
107	Simpson County Schools	-	108,683,795	108,683,795				
108	Spencer County Schools	-	100,935,430	100,935,430				
109	Taylor County Schools	-	92,658,744	92,658,744				
110	Todd County Schools	-	63,417,813	63,417,813				
111	Trigg County Schools	-	78,024,382	78,024,382				
112	Trimble County Schools	-	45,571,426	45,571,426				
113	Union County Schools	-	83,029,951	83,029,951				
114	Warren County Schools	-	507,432,630	507,432,630				
115	Washington County Schools	-	67,237,491	67,237,491				
116	Wayne County Schools	-	111,220,713	111,220,713				
117	Webster County Schools	-	72,342,356	72,342,356				
118	Whitley County Schools	-	156,076,827	156,076,827				
119	Wolfe County Schools	-	56,218,548	56,218,548				
120	Woodford County Schools	-	143,491,805	143,491,805				



SCHEDULE B (continued)

Code	Employer	June 30, 2017			Deferred Outflows of Resources			
		Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability	Difference Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
122	Anchorage City Schools	-	28,477,858	28,477,858				
124	Ashland City Schools	-	116,960,752	116,960,752				
125	Augusta City Schools	-	11,389,956	11,389,956				
126	Barbourville City Schools	-	23,101,007	23,101,007				
127	Bardstown City Schools	-	110,729,897	110,729,897				
128	Beechwood Independent Schools	-	53,843,257	53,843,257				
129	Bellevue City Schools	-	32,522,032	32,522,032				
131	Berea City Schools	-	42,117,905	42,117,905				
134	Bowling Green City Schools	-	158,791,831	158,791,831				
136	Burgin City Schools	-	18,001,268	18,001,268				
140	Campbellsville City Schools	-	46,301,849	46,301,849				
144	Caverna City Schools	-	29,858,565	29,858,565				
147	Cloverport City Schools	-	14,698,850	14,698,850				
150	Corbin City Schools	-	102,330,708	102,330,708				
151	Covington City Schools	-	178,677,034	178,677,034				
154	Danville City Schools	-	89,734,893	89,734,893				
155	Dawson Springs City Schools	-	23,357,882	23,357,882				
156	Dayton City Schools	-	37,116,653	37,116,653				
158	East Bernstadt City Schools	-	17,826,690	17,826,690				
160	Elizabethtown City Schools	-	95,684,588	95,684,588				
161	Eminence Independent Schools	-	29,858,565	29,858,565				
162	Erlanger-Elsmere City Schools	-	95,906,656	95,906,656				
163	Fairview Independent Schools	-	27,180,798	27,180,798				
166	Fort Thomas Independent Schools	-	126,478,915	126,478,915				
167	Frankfort City Schools	-	37,135,272	37,135,272				
170	Fulton City Schools	-	14,715,040	14,715,040				
173	Glasgow City Schools	-	89,270,790	89,270,790				
180	Harlan City Schools	-	24,955,261	24,955,261				
182	Hazard Independent Schools	-	38,101,793	38,101,793				
190	Jackson City Schools	-	9,840,607	9,840,607				
191	Jenkins City Schools	-	18,675,837	18,675,837				
206	Ludlow City Schools	-	37,666,022	37,666,022				
210	Mayfield City Schools	-	60,927,846	60,927,846				
214	Middlesboro City Schools	-	42,792,204	42,792,204				
221	Murray City Schools	-	60,524,454	60,524,454				
222	Newport City Schools	-	79,502,497	79,502,497				
224	Owensboro City Schools	-	200,057,351	200,057,351				
226	Paducah City Schools	-	114,137,548	114,137,548				
227	Paintsville City Schools	-	34,926,734	34,926,734				
228	Paris City Schools	-	25,401,286	25,401,286				



SCHEDULE B (continued)

Code	Employer	June 30, 2017			Deferred Outflows of Resources			
		Employer's	State's	Total	Difference Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
		Proportionate Share of Net Pension Liability	Proportionate Share of Net Pension Liability	Net Pension Liability				
230	Pikeville City Schools	-	58,301,885	58,301,885				
231	Pineville City Schools	-	17,638,350	17,638,350				
235	Raceland City Schools	-	38,491,964	38,491,964				
238	Russell City Schools	-	87,840,435	87,840,435				
239	Russellville City Schools	-	37,412,114	37,412,114				
240	Science Hill City Schools	-	15,957,595	15,957,595				
245	Silver Grove City Schools	-	10,015,995	10,015,995				
246	Somerset City Schools	-	61,529,291	61,529,291				
247	Southgate City Schools	-	8,761,297	8,761,297				
258	Walton-Verona Independent Schools	-	67,912,869	67,912,869				
259	West Point City Schools	-	6,059,785	6,059,785				
260	Williamsburg City Schools	-	28,792,747	28,792,747				
261	Williamstown City Schools	-	27,960,599	27,960,599				
870	Ohio Valley Educational Cooperative	-	16,838,851	16,838,851				
871	West Kentucky Educational Cooperative	-	8,406,744	8,406,744				
872	Southeast South-Central Educational Cooperative	-	1,581,728	1,581,728				
890	Green River Regional Educational Cooperative	-	8,935,066	8,935,066				
891	Central KY Special Education Cooperative	-	4,729,266	4,729,266				
892	KY Valley Educational Cooperative	-	6,437,273	6,437,273				
894	KY Educational Development Corporation	-	14,586,872	14,586,872				
895	Northern KY Cooperative for Educational Services	-	11,760,969	11,760,969				
	Total - Local School Districts	\$ -	\$ 26,334,613,008	\$ 26,334,613,008				
	Total Non University	\$ 270,258,086	\$ 26,712,486,103	\$ 26,982,744,189	\$ 1,459,559	\$ 31,888,239	\$ 11,192,264	\$ 44,540,062
	State's Proportionate Share of Outflow s/Inflow s				\$ 147,527,765	\$ 3,221,942,196	\$ 555,108,348	\$ 3,924,578,309



SCHEDULE B (continued)

		Deferred Inflows of Resources										
		Differences Between Expected and Actual Experience		Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions				
				Change of Assumptions	Investments	Contributions	Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense	Total Pension Expense	
Code	Employer											
Local School Districts and Educational Cooperatives												
1	Adair County Schools							\$ -	\$ 6,244,076	\$ 6,244,076	\$ -	\$ 6,244,076
2	Allen County Schools							-	7,446,816	7,446,816	-	7,446,816
3	Anderson County Schools							-	8,598,291	8,598,291	-	8,598,291
4	Ballard County Schools							-	3,286,186	3,286,186	-	3,286,186
5	Barren County Schools							-	12,565,462	12,565,462	-	12,565,462
6	Bath County Schools							-	5,237,042	5,237,042	-	5,237,042
7	Bell County Schools							-	6,478,888	6,478,888	-	6,478,888
8	Boone County Schools							-	58,173,833	58,173,833	-	58,173,833
9	Bourbon County Schools							-	7,106,246	7,106,246	-	7,106,246
10	Boyd County Schools							-	8,344,693	8,344,693	-	8,344,693
11	Boyle County Schools							-	8,058,327	8,058,327	-	8,058,327
12	Bracken County Schools							-	3,073,539	3,073,539	-	3,073,539
13	Breathitt County Schools							-	4,938,998	4,938,998	-	4,938,998
14	Breckinridge County Schools							-	6,847,539	6,847,539	-	6,847,539
15	Bullitt County Schools							-	34,799,788	34,799,788	-	34,799,788
16	Butler County Schools							-	5,136,356	5,136,356	-	5,136,356
17	Caldwell County Schools							-	4,396,998	4,396,998	-	4,396,998
18	Calloway County Schools							-	7,770,752	7,770,752	-	7,770,752
19	Campbell County Schools							-	12,581,865	12,581,865	-	12,581,865
20	Carlisle County Schools							-	2,063,989	2,063,989	-	2,063,989
21	Carroll County Schools							-	5,539,888	5,539,888	-	5,539,888
22	Carter County Schools							-	10,544,863	10,544,863	-	10,544,863
23	Casey County Schools							-	5,215,030	5,215,030	-	5,215,030
24	Christian County Schools							-	20,933,685	20,933,685	-	20,933,685
25	Clark County Schools							-	13,503,214	13,503,214	-	13,503,214
26	Clay County Schools							-	8,342,119	8,342,119	-	8,342,119
27	Clinton County Schools							-	4,370,569	4,370,569	-	4,370,569
28	Crittenden County Schools							-	3,076,689	3,076,689	-	3,076,689
29	Cumberland County Schools							-	2,300,684	2,300,684	-	2,300,684
30	Daviess County Schools							-	30,429,834	30,429,834	-	30,429,834
31	Edmonson County Schools							-	4,719,302	4,719,302	-	4,719,302
32	Elliott County Schools							-	2,800,100	2,800,100	-	2,800,100
33	Estill County Schools							-	5,998,257	5,998,257	-	5,998,257
34	Fayette County Schools							-	141,186,002	141,186,002	-	141,186,002
35	Fleming County Schools							-	5,510,750	5,510,750	-	5,510,750
36	Floyd County Schools							-	14,517,912	14,517,912	-	14,517,912
37	Franklin County Schools							-	15,991,018	15,991,018	-	15,991,018
38	Fulton County Schools							-	1,609,441	1,609,441	-	1,609,441
39	Gallatin County Schools							-	4,292,605	4,292,605	-	4,292,605
40	Garrard County Schools							-	6,194,904	6,194,904	-	6,194,904



SCHEDULE B (continued)

		Deferred Inflows of Resources									
		Differences Between Expected and Actual Experience		Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions			
				Change of Assumptions	Investments	Share of Contributions	Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense	Total Pension Expense
Code	Employer										
41	Grant County Schools						-	9,176,593	9,176,593	-	9,176,593
42	Graves County Schools						-	10,998,931	10,998,931	-	10,998,931
43	Grayson County Schools						-	10,198,858	10,198,858	-	10,198,858
44	Green County Schools						-	4,242,493	4,242,493	-	4,242,493
45	Greenup County Schools						-	7,284,301	7,284,301	-	7,284,301
46	Hancock County Schools						-	4,717,669	4,717,669	-	4,717,669
47	Hardin County Schools						-	38,529,457	38,529,457	-	38,529,457
48	Harlan County Schools						-	8,793,786	8,793,786	-	8,793,786
49	Harrison County Schools						-	7,077,954	7,077,954	-	7,077,954
50	Hart County Schools						-	6,845,292	6,845,292	-	6,845,292
51	Henderson County Schools						-	18,352,609	18,352,609	-	18,352,609
52	Henry County Schools						-	5,604,425	5,604,425	-	5,604,425
53	Hickman County Schools						-	2,294,307	2,294,307	-	2,294,307
54	Hopkins County Schools						-	17,847,027	17,847,027	-	17,847,027
55	Jackson County Schools						-	5,871,353	5,871,353	-	5,871,353
56	Jefferson County Schools						-	357,092,379	357,092,379	-	357,092,379
57	Jessamine County Schools						-	21,027,033	21,027,033	-	21,027,033
58	Johnson County Schools						-	9,820,757	9,820,757	-	9,820,757
59	Kenton County Schools						-	37,444,709	37,444,709	-	37,444,709
60	Knott Counts Schools						-	5,965,700	5,965,700	-	5,965,700
61	Knox County Schools						-	11,195,885	11,195,885	-	11,195,885
62	Larue County Schools						-	6,591,771	6,591,771	-	6,591,771
63	Laurel County Schools						-	21,983,148	21,983,148	-	21,983,148
64	Lawrence County Schools						-	6,541,217	6,541,217	-	6,541,217
65	Lee County Schools						-	2,008,728	2,008,728	-	2,008,728
66	Leslie County Schools						-	4,452,374	4,452,374	-	4,452,374
67	Letcher County Schools						-	8,066,856	8,066,856	-	8,066,856
68	Lewis County Schools						-	5,267,044	5,267,044	-	5,267,044
69	Lincoln County Schools						-	9,113,496	9,113,496	-	9,113,496
70	Livingston County Schools						-	3,344,596	3,344,596	-	3,344,596
71	Logan County Schools						-	9,329,331	9,329,331	-	9,329,331
72	Lyon County Schools						-	2,099,081	2,099,081	-	2,099,081
73	Madison County Schools						-	27,405,063	27,405,063	-	27,405,063
74	Magoffin County Schools						-	5,084,745	5,084,745	-	5,084,745
75	Marion County Schools						-	9,192,804	9,192,804	-	9,192,804
76	Marshall County Schools						-	12,377,746	12,377,746	-	12,377,746
77	Martin County Schools						-	4,357,066	4,357,066	-	4,357,066
78	Mason County Schools						-	7,205,799	7,205,799	-	7,205,799
79	McCracken County Schools						-	18,319,898	18,319,898	-	18,319,898
80	McCreary County Schools						-	7,031,567	7,031,567	-	7,031,567



SCHEDULE B (continued)

		Deferred Inflows of Resources									
		Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Pension Expense
Code	Employer										
81	McLean County Schools						-	4,050,282	4,050,282	-	4,050,282
82	Meade County Schools						-	11,166,920	11,166,920	-	11,166,920
83	Menifee County Schools						-	2,269,644	2,269,644	-	2,269,644
84	Mercer County Schools						-	7,738,848	7,738,848	-	7,738,848
85	Metcalfe County Schools						-	3,983,805	3,983,805	-	3,983,805
86	Monroe County Schools						-	4,788,506	4,788,506	-	4,788,506
87	Montgomery County Schools						-	12,299,187	12,299,187	-	12,299,187
88	Morgan County Schools						-	4,516,277	4,516,277	-	4,516,277
89	Muhlenberg County Schools						-	11,640,752	11,640,752	-	11,640,752
90	Nelson County Schools						-	12,007,732	12,007,732	-	12,007,732
91	Nicholas County Schools						-	2,591,890	2,591,890	-	2,591,890
92	Ohio County Schools						-	9,813,170	9,813,170	-	9,813,170
93	Oldham County Schools						-	33,094,693	33,094,693	-	33,094,693
94	Owen County Schools						-	4,310,872	4,310,872	-	4,310,872
95	Owsley County Schools						-	1,705,172	1,705,172	-	1,705,172
96	Pendleton County Schools						-	5,665,620	5,665,620	-	5,665,620
97	Perry County Schools						-	9,621,786	9,621,786	-	9,621,786
98	Pike County Schools						-	22,245,850	22,245,850	-	22,245,850
99	Powell County Schools						-	5,868,068	5,868,068	-	5,868,068
100	Pulaski County Schools						-	19,616,717	19,616,717	-	19,616,717
101	Robertson County Schools						-	928,802	928,802	-	928,802
102	Rockcastle County Schools						-	7,541,452	7,541,452	-	7,541,452
103	Rowan County Schools						-	7,462,739	7,462,739	-	7,462,739
104	Russell County Schools						-	7,729,609	7,729,609	-	7,729,609
105	Scott County Schools						-	22,317,706	22,317,706	-	22,317,706
106	Shelby County Schools						-	19,972,960	19,972,960	-	19,972,960
107	Simpson County Schools						-	7,736,620	7,736,620	-	7,736,620
108	Spencer County Schools						-	7,185,055	7,185,055	-	7,185,055
109	Taylor County Schools						-	6,595,882	6,595,882	-	6,595,882
110	Todd County Schools						-	4,514,376	4,514,376	-	4,514,376
111	Trigg County Schools						-	5,554,140	5,554,140	-	5,554,140
112	Trimble County Schools						-	3,243,987	3,243,987	-	3,243,987
113	Union County Schools						-	5,910,459	5,910,459	-	5,910,459
114	Warren County Schools						-	36,121,423	36,121,423	-	36,121,423
115	Washington County Schools						-	4,786,278	4,786,278	-	4,786,278
116	Wayne County Schools						-	7,917,209	7,917,209	-	7,917,209
117	Webster County Schools						-	5,149,667	5,149,667	-	5,149,667
118	Whitley County Schools						-	11,110,277	11,110,277	-	11,110,277
119	Wolfe County Schools						-	4,001,899	4,001,899	-	4,001,899
120	Woodford County Schools						-	10,214,416	10,214,416	-	10,214,416



SCHEDULE B (continued)

		Deferred Inflows of Resources												
		Differences Between Expected and Actual Experience		Change of Assumptions		Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		Total Deferred Inflows of Resources		Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		Total Pension Expense
Code	Employer							Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense				
122	Anchorage City Schools							-	2,027,187	2,027,187	-		2,027,187	
124	Ashland City Schools							-	8,325,812	8,325,812	-		8,325,812	
125	Augusta City Schools							-	810,790	810,790	-		810,790	
126	Barbourville City Schools							-	1,644,437	1,644,437	-		1,644,437	
127	Bardstown City Schools							-	7,882,271	7,882,271	-		7,882,271	
128	Beechwood Independent Schools							-	3,832,814	3,832,814	-		3,832,814	
129	Bellevue City Schools							-	2,315,070	2,315,070	-		2,315,070	
131	Berea City Schools							-	2,998,149	2,998,149	-		2,998,149	
134	Bowling Green City Schools							-	11,303,544	11,303,544	-		11,303,544	
136	Burgin City Schools							-	1,281,414	1,281,414	-		1,281,414	
140	Campbellsville City Schools							-	3,295,982	3,295,982	-		3,295,982	
144	Caverna City Schools							-	2,125,472	2,125,472	-		2,125,472	
147	Cloverport City Schools							-	1,046,333	1,046,333	-		1,046,333	
150	Corbin City Schools							-	7,284,377	7,284,377	-		7,284,377	
151	Covington City Schools							-	12,719,065	12,719,065	-		12,719,065	
154	Danville City Schools							-	6,387,748	6,387,748	-		6,387,748	
155	Dawson Springs City Schools							-	1,662,723	1,662,723	-		1,662,723	
156	Dayton City Schools							-	2,642,137	2,642,137	-		2,642,137	
158	East Bernstadt City Schools							-	1,268,987	1,268,987	-		1,268,987	
160	Elizabethtown City Schools							-	6,811,276	6,811,276	-		6,811,276	
161	Eminence Independent Schools							-	2,125,472	2,125,472	-		2,125,472	
162	Erlanger-Elsmere City Schools							-	6,827,083	6,827,083	-		6,827,083	
163	Fairview Independent Schools							-	1,934,856	1,934,856	-		1,934,856	
166	Fort Thomas Independent Schools							-	9,003,359	9,003,359	-		9,003,359	
167	Frankfort City Schools							-	2,643,462	2,643,462	-		2,643,462	
170	Fulton City Schools							-	1,047,485	1,047,485	-		1,047,485	
173	Glasgow City Schools							-	6,354,711	6,354,711	-		6,354,711	
180	Harlan City Schools							-	1,776,432	1,776,432	-		1,776,432	
182	Hazard Independent Schools							-	2,712,263	2,712,263	-		2,712,263	
190	Jackson City Schools							-	700,500	700,500	-		700,500	
191	Jenkins City Schools							-	1,329,433	1,329,433	-		1,329,433	
206	Ludlow City Schools							-	2,681,243	2,681,243	-		2,681,243	
210	Mayfield City Schools							-	4,337,128	4,337,128	-		4,337,128	
214	Middlesboro City Schools							-	3,046,149	3,046,149	-		3,046,149	
221	Murray City Schools							-	4,308,413	4,308,413	-		4,308,413	
222	Newport City Schools							-	5,659,359	5,659,359	-		5,659,359	
224	Owensboro City Schools							-	14,241,016	14,241,016	-		14,241,016	
226	Paducah City Schools							-	8,124,843	8,124,843	-		8,124,843	
227	Paintsville City Schools							-	2,486,248	2,486,248	-		2,486,248	
228	Paris City Schools							-	1,808,182	1,808,182	-		1,808,182	



SCHEDULE B (continued)

		<u>Deferred Inflows of Resources</u>									
Code	Employer	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Net Employer Pension Expense	Revenue State Support	Proportionate Share of Plan Pension Expense	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Pension Expense
230	Pikeville City Schools						-	4,150,200	4,150,200	-	4,150,200
231	Pineville City Schools						-	1,255,580	1,255,580	-	1,255,580
235	Raceland City Schools						-	2,740,038	2,740,038	-	2,740,038
238	Russell City Schools						-	6,252,892	6,252,892	-	6,252,892
239	Russellville City Schools						-	2,663,169	2,663,169	-	2,663,169
240	Science Hill City Schools						-	1,135,936	1,135,936	-	1,135,936
245	Silver Grove City Schools						-	712,985	712,985	-	712,985
246	Somerset City Schools						-	4,379,942	4,379,942	-	4,379,942
247	Southgate City Schools						-	623,670	623,670	-	623,670
258	Walton-Verona Independent Schools						-	4,834,355	4,834,355	-	4,834,355
259	West Point City Schools						-	431,364	431,364	-	431,364
260	Williamsburg City Schools						-	2,049,602	2,049,602	-	2,049,602
261	Williamstown City Schools						-	1,990,366	1,990,366	-	1,990,366
870	Ohio Valley Educational Cooperative						-	1,198,668	1,198,668	-	1,198,668
871	West Kentucky Educational Cooperative						-	598,431	598,431	-	598,431
872	Southeast South-Central Educational Cooperative						-	112,595	112,595	-	112,595
890	Green River Regional Educational Cooperative						-	636,040	636,040	-	636,040
891	Central KY Special Education Cooperative						-	336,651	336,651	-	336,651
892	KY Valley Educational Cooperative						-	458,235	458,235	-	458,235
894	KY Educational Development Corporation						-	1,038,362	1,038,362	-	1,038,362
895	Northern KY Cooperative for Educational Services						-	837,201	837,201	-	837,201
Total - Local School Districts							\$ 0	\$ 1,874,620,652	\$ 1,874,620,652	\$ -	\$ 1,874,620,652
Total Non University		\$ 1,471,920	\$ 18,053,170	\$ 1,837,662	\$ 233,185,287	\$ 254,548,039	\$ 19,238,234	\$ 1,901,519,419	\$ 1,920,757,653	\$ (67,042,199)	\$ 1,853,715,454
State's Proportionate Share of Outflow s/Inflow s		\$ 157,458,080	\$ 1,823,685,955	\$ 186,015,818	\$ 9,024,908	\$ 2,176,184,761				\$ 164,639,641	



SECTION C
Teachers' Retirement System of the State of Kentucky
Schedules of Remaining Deferred Outflows and (Inflows)

Code	Employer	NPL Sensitivity		Recognition of Existing Deferred Outflows (Inflows) of Resources for					
		Less 1%- 3.49% Employer's Proportionate Share of Net Pension Liability	Plus 1%- 5.49% Employer's Proportionate Share of Net Pension Liability	Future Plan Years Ending June 30,					
				2019	2020	2021	2022	2023	Thereafter
University Employers									
263	Eastern Kentucky University	\$ 239,691,376	\$ 155,342,342	\$ (21,411,447)	\$ (18,940,974)	\$ (22,688,953)	\$ (7,876,148)	\$ -	\$ -
266	Kentucky State University	50,250,685	32,567,126	(7,369,801)	(6,851,873)	(6,059,024)	(2,278,285)	-	-
269	Morehead State University	128,274,195	83,133,629	(12,906,490)	(11,584,382)	(13,192,602)	(4,469,581)	-	-
270	Murray State University	141,581,103	91,757,745	(15,803,284)	(14,344,023)	(16,471,004)	(5,803,128)	-	-
273	Western Kentucky University	256,637,784	166,325,193	(26,198,208)	(23,553,071)	(25,680,066)	(8,926,578)	-	-
500	KCTCS Central Office - University	64,029,320	41,496,964	(9,173,362)	(8,513,419)	(8,735,544)	(3,049,423)	-	-
	Total University	\$ 880,464,463	\$ 570,622,999	\$ (92,862,592)	\$ (83,787,742)	\$ (92,827,193)	\$ (32,403,143)	\$ -	\$ -
	State's Proportionate Share of NPL - University	\$ 701,713,537	\$ 454,775,744	\$ 101,371,030	\$ 108,603,514	\$ 104,371,903	\$ 27,444,701	\$ -	\$ -
Non-University Employers									
400	KCTCS CENTRAL OFFICE	\$ 76,176,393	\$ 49,369,401	\$ (20,947,766)	\$ (20,215,963)	\$ (18,844,384)	\$ (6,354,473)	\$ -	\$ -
801	KY High School Athletic Association	2,949,389	1,911,479	(418,025)	(389,691)	(423,152)	(141,650)	-	-
805	KY School Boards Association	6,843,667	4,435,334	(1,105,100)	(1,039,355)	(1,142,452)	(356,513)	-	-
806	KY Education Association	837,857	543,009	(138,112)	(130,063)	(136,034)	(39,615)	-	-
807	KY Academic Association	539,506	349,650	(83,045)	(77,863)	(83,357)	(27,294)	-	-
809	Jefferson County Teachers' Association	244,500	158,459	(35,464)	(33,115)	(35,548)	(11,359)	-	-
		\$ 87,591,312	\$ 56,767,332	\$ (22,727,512)	\$ (21,886,050)	\$ (20,664,927)	\$ (6,930,904)	\$ -	\$ -
State Agencies									
301	Technical Education District - Madisonville	\$ 26,868,275	\$ 17,413,145	\$ (1,177,834)	\$ (919,719)	\$ (2,119,908)	\$ (797,449)	\$ -	\$ -
302	Technical Education District - Bowling Green	27,407,112	17,762,362	(2,301,309)	(2,038,018)	(2,411,998)	(832,944)	-	-
303	Technical Education District - Elizabethtown	123,755	80,205	(5,875,351)	(5,874,162)	(6,136,468)	(1,963,232)	-	-
304	Technical Education District - Frankfort	21,796,315	14,126,043	(4,864,706)	(4,655,316)	(4,041,865)	(1,287,689)	-	-
305	Technical Education District - Hazard	25,630,053	16,610,662	(3,602,222)	(3,356,002)	(3,147,256)	(1,026,945)	-	-
308	Adult Council on Post Secondary Education	1,820,875	1,180,097	(554,359)	(536,867)	(518,382)	(177,204)	-	-
316	Office of Career and Technical Education	7,880,870	5,107,538	577,321	653,030	(710,054)	(279,518)	-	-
317	Office of Secretary of Workforce Investment	341,498	221,322	(118,459)	(115,178)	(66,088)	(17,261)	-	-
318	Department for Vocational Rehabilitation	39,327,087	25,487,616	(7,536,576)	(7,158,773)	(7,768,621)	(2,593,735)	-	-
320	School for the Blind	11,355,383	7,359,346	(2,337,326)	(2,228,239)	(2,307,341)	(743,995)	-	-
330	School for the Deaf	15,919,946	10,317,608	(3,071,603)	(2,918,665)	(2,877,845)	(978,068)	-	-
345	Department of Education	64,172,134	41,589,519	(9,887,747)	(9,271,266)	(9,952,112)	(3,300,827)	-	-
728	Department of Corrections	319,757	207,232	(60,756)	(57,684)	(34,769)	(8,089)	-	-
896	Education Professional Standards Board	4,453,183	2,886,078	(679,294)	(636,514)	(768,492)	(326,835)	-	-
		\$ 247,416,243	\$ 160,348,773	\$ (41,490,221)	\$ (39,113,373)	\$ (42,861,199)	\$ (14,333,791)	\$ -	\$ -
	State's Proportionate Share of NPL - Non-University	\$ 33,112,365,898	\$ 21,459,897,916	\$ 346,214,265	\$ 664,314,538	\$ 404,038,085	\$ (7,964,488)	\$ -	\$ -



SCHEDULE D

SUMMARY OF MAIN PLAN PROVISIONS AS INTERPRETED FOR ACCOUNTING AND REPORTING VALUATION PURPOSES

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, 2014. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 - DEFINITIONS

"Final average salary" means the average of the five highest annual salaries which the member has received for service in a covered position and on which the member has made contributions or on which the public board, institution or agency has picked up the member contributions. For a member who retires after attaining age 55 with 27 years of service, "final average salary" means the average of the three highest annual salaries.

2 - BENEFITS

Service Retirement Allowance

Members Before 7/1/2008

Condition for Allowance

Completion of 27 years of service or attainment of age 55 and 5 years of service.

Amount of Allowance

The annual retirement allowance for non-university members is equal to:

- (a) 2.0% of final average salary multiplied by service before July 1, 1983, plus
- (b) 2.5% of final average salary multiplied by service after July 1, 1983.
- (c) For individuals who become members of the Retirement System on or after July 1, 2002 and have less than 10 years of service at retirement, the retirement allowance is 2.0% of final average salary multiplied by service. If, however, they have 10 or more years, they receive a benefit percentage of 2.5% for all years of service up to 30 years.



SCHEDULE D (continued)

- (d) For members retiring on or after July 1, 2004, the retirement allowance formula is 3.0% of final average salary for each year of service credit earned in excess of 30 years.

The annual retirement allowance for university members is equal to 2.0% of final average salary multiplied by all years of service.

For all members, the annual allowance is reduced by 5% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

The minimum annual service allowance for all members is \$440 multiplied by credited service.

Members on and after 7/1/2008

Condition for Retirement

Completion of 27 years of service, attainment of age 60 and 5 years of service or attainment of age 55 and 10 years of service.

Amount of Allowance

The annual retirement allowance for non-university members is equal to:

- 1.7% of final average salary if service is 10 years or less.
- 2.0% of final average salary if service is greater than 10 years and no more than 20 years.
- 2.3% of final average salary if service is greater than 20 years but no more than 26 years.
- 2.5% of final average salary if service is greater than 26 years but no more than 30 years.
- 3.0% of final average salary for years of service greater than 30 years.

The annual retirement allowance for university members is equal to:

- 1.5% of final average salary if service is 10 years or less.
- 1.7% of final average salary if service is greater than 10 years and no more than 20 years.
- 1.85% of final average salary if service is greater than 20 years but less than 27 years.
- 2.0% of final average salary if service is greater than or equal to 27 years.

For all members, the annual allowance is reduced by 6% per year from the earlier of age 60 or the date the member would have completed 27 years of service.



SCHEDULE D (continued)

Disability Retirement Allowance

Condition for Allowance

Totally and permanently incapable of being employed as a teacher and under age 60 but after completing 5 years of service.

Amount of Allowance

The disability allowance is equal to the greater of the service retirement allowance or 60% of the member's final average salary. The disability allowance is payable over an entitlement period equal to 25% of the service credited to the member at the date of disability or five years, whichever is longer. After the disability entitlement period has expired and if the member remains disabled, he will be retired under service retirement. The service retirement allowance will be computed with service credit given for the period of disability retirement. The allowance will not be less than \$6,000 per year. The service retirement allowance will not be reduced for commencement of the allowance before age 60 or the completion of 27 years of service.

Benefits Payable on Separation from Service

Any member who ceases to be in service is entitled to receive his contributions with allowable interest. A member who has completed 5 years of creditable service and leaves his contributions with the System may be continued in the membership of the System after separation from service, and file application for service retirement after the attainment of age 60.

Life Insurance

A separate Life Insurance fund has been created as of June 30, 2000 to pay benefits on behalf of deceased TRS active and retired members.



SCHEDULE D (continued)

Death Benefits

A surviving spouse of an active member with less than 10 years of service may elect to receive an annual allowance of \$2,880 except that if income from other sources exceeds \$6,600 per year the annual allowance will be \$2,160.

A surviving spouse of an active member with 10 or more years of service may elect to receive an allowance which is the actuarial equivalent of the allowance the deceased member would have received upon retirement. The allowance will commence on the date the deceased member would have been eligible for service retirement and will be payable during the life of the spouse.

If the deceased member is survived by unmarried children under age 18 the following schedule of annual allowances applies:

<u>Number of Children</u>	<u>Annual Allowance</u>
1	\$ 2,400
2	4,080
3	4,800
4 or more	5,280

The allowances are payable until a child attains age 18, or age 23 if a full-time student.

If the member has no eligible survivor, a refund of his accumulated contributions is payable to his estate.

Options

In lieu of the regular Option 1, a retirement allowance payable in the form of a life annuity with refundable balance, any member before retirement may elect to receive a reduced allowance which is actuarially equivalent to the full allowance, in one of the following forms:

Option 2. A single life annuity payable during the member's lifetime with payments for 10 years certain.

Option 3. At the death of the member his allowance is continued throughout the life of his beneficiary.

Option 3(a). At the death of the beneficiary designated by the member under Option 3, the member's benefit will revert to what would have been paid had he not selected an option.

Option 4. At the death of the member one half of his allowance is continued throughout the life of his beneficiary.

Option 4(a). At the death of the beneficiary designated by the member under Option 4, the member's benefit will revert to what would have been paid had he not selected an option.



SCHEDULE D (continued)

Post-Retirement Adjustments

The retirement allowance of each retired member and of each beneficiary shall be increased by 1.50% each July 1.

3 - CONTRIBUTIONS

Member Contributions

University members contribute 7.625% of salary to the Retirement System. Non-university members contribute 9.105% of salary to the Retirement System. Member contributions are picked up by the employer.



SCHEDULE E

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2015, submitted to and adopted by the Board on September 19, 2016.

INVESTMENT RATE OF RETURN: 7.50% per annum, compounded annually, including price inflation at 3.00% per annum.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include wage inflation at 3.50% per annum:

<u>Age</u>	<u>Annual Rate</u>
20	7.20%
25	6.40
30	5.40
35	4.70
40	4.20
45	3.80
50	3.70
55	3.50
60	3.50
65	3.50

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

Males

Age	Annual Rate of						
	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
			Service			Before 27 Years of Service	After 27 Years of Service*
			0 – 4	5 – 9	10+		
20	0.019%	0.01%	11.00%				
25	0.021	0.01	11.00	3.00%			
30	0.025	0.01	11.00	3.00	3.00%		
35	0.043	0.04	12.00	3.50	1.40		
40	0.060	0.09	12.00	4.50	1.40		
45	0.084	0.20	12.00	4.50	1.30		17.0%
50	0.119	0.30	14.00	4.50	1.90		17.0
55	0.202	0.58	15.00	4.50	2.40	5.0%	45.0
60	0.340	0.75	15.00	4.00	2.40	13.0	35.0
62	0.419	0.75	15.00	3.80	2.40	15.0	25.0
65	0.565	0.75	15.00	3.50	2.40	20.0	25.0
70	0.913	0.75	20.00	0.00	0.00	20.0	20.0
75	1.556	0.75	20.00	0.00	0.00	100.0	100.0

*Plus 7.5% in year when first eligible for unreduced retirement with 27 years of service.



SCHEDULE E (continued)

Females

Age	Annual Rate of						
	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
			Service			Before 27 Years of Service	After 27 Years of Service*
			0 – 4	5 – 9	10+		
20	0.007%	0.01%	9.00%				
25	0.008	0.01	9.00	4.00%			
30	0.010	0.03	12.00	4.00	1.65%		
35	0.018	0.06	12.00	4.00	1.50		
40	0.026	0.12	12.00	4.00	1.30		
45	0.042	0.25	13.00	4.00	1.20		15.0%
50	0.062	0.44	13.00	5.00	1.50		18.0
55	0.096	0.65	15.00	5.00	2.00	5.5%	50.0
60	0.157	0.85	15.00	5.00	2.00	14.0	40.0
62	0.197	0.85	15.00	4.60	2.00	14.0	40.0
65	0.287	0.85	15.00	4.00	2.00	22.0	35.0
70	0.495	0.85	15.00	0.00	0.00	20.0	35.0
75	0.831	0.85	15.00	0.00	0.00	100.0	100.0

*Plus 7.5% in year when first eligible for unreduced retirement with 27 years of service.

DEATHS AFTER RETIREMENT: The RP-2000 Combined Mortality Table projected to 2025 using scale BB (set forward two years for males and one year for females) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table (set forward two years for males and seven years for females) is used for death after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on September 19, 2016, the numbers of expected future deaths are 15-19% less than the actual number of deaths that occurred during the study period for healthy retirees and 13-17% less than expected under the selected table for disabled retirees. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

Age	Annual Rate of Death After			
	Service Retirement		Disability Retirement	
	Male	Female	Male	Female
45	0.1609%	0.1135%	2.3306%	1.2482%
50	0.2474	0.1718	2.9279	1.5650
55	0.4246	0.2658	3.4400	1.7807
60	0.6985	0.4409	3.5881	2.3164
65	1.1300	0.8100	3.8275	3.1687
70	1.8697	1.3739	4.7566	4.4032
75	3.2147	2.2899	6.3153	6.0857
80	5.5160	3.7551	8.3527	8.4679
85	9.5631	6.3873	10.9122	12.7572
90	17.2787	11.2476	17.2787	19.4718
95	27.1263	18.1190	27.1263	24.2074



SCHEDULE E (continued)

ASSETS: Market Value

EXPENSE LOAD: None.

PERCENT MARRIED: 100%, with females 3 years younger than males.

LOADS: Unused sick leave: 2% of active liability



SCHEDULE F
BOARD FUNDING POLICY

Introduction

Pursuant to the provisions of KRS 161.250, the Board of Trustees (“Board”) of the Kentucky Teachers’ Retirement Systems (“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 (“state law”) shall control if any inconsistency exists between state law and this policy.

Background:

State law provides that the retirement benefits promised to members of TRS are “...an inviolable contract of the Commonwealth....” (KRS 161.714.) To satisfy this solemn commitment, the Commonwealth of Kentucky (“state”) is required to pay annual retirement appropriations necessary to fund the benefit requirements of members of the retirement system. 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—is solely 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. (KRS 161.550(6).)

Since fiscal year 2008, the state has not paid the recommended annual retirement appropriations necessary to pre-fund the benefit requirements of members of the retirement system as determined by the actuary. Over this period of time, because of the failure to fund, the state's annual retirement appropriations have grown significantly from \$60.5 million (Fiscal Year 2009) to \$520 million (Fiscal Year 2017). The following schedule details the growth of the annual retirement appropriations payable by the state:



SCHEDULE E (continued)

	Cumulative Increase as a % of Payroll	Cumulative Increase of Annual Retirement Appropriations Payable by the State
2009	1.88	\$ 60,499,800
2010	2.46	82,331,200
2011	3.59	121,457,000
2012	5.81	208,649,000
2013	7.27	260,980,000
2014	8.02	299,420,000
2015	10.42	386,400,000
2016	12.97	487,400,000
2017	13.80	520,372,000

(Source: TRS Report of the Actuary on the Annual Valuation Prepared as of June 30, 2014).

The Board has always taken action as required by state law and recommended annual retirement appropriations payable by the state that would ensure that the state meets the contractual obligations to members. This policy confirms the Board's process for recommending annual retirement appropriations payable by the state and the primary actuarial assumptions and methodologies associated with calculating the annual retirement 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.

1. 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.)

2. Calculation of Annual Retirement Appropriations Payable by the State: The Board will recommend annual retirement appropriations payable by the state, which—if paid—will meet the benefit requirements of the members of the retirement system consistent with generally accepted actuarial principles. Based upon technical advice from



SCHEDULE E (continued)

the Board's actuary, the Board hereby adopts the following principles for calculating the recommended annual retirement appropriations payable by the state:

- Use the Entry Age Normal actuarial cost method;
- Use a five-year asset smoothing method;
- Use a thirty-year closed period to amortize legacy unfunded liability ("legacy unfunded liability" is that unfunded liability recognized as of the valuation prepared for June 30, 2014);
- Use a twenty-year closed period to amortize new sources of unfunded liability ("new sources of unfunded liability" is that 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
- Reach a 100 percent minimum funded ratio within the thirty-year closed amortization period.

The Board also recognizes that, from time to time, the state may desire to contribute lump sum payments toward satisfaction of unfunded liability rather than amortization of the debt. Total unfunded liability is published in every annual valuation of the retirement system and TRS will work with the state to develop reasonable and appropriate plans for receipt of lump sum payments toward the satisfaction of unfunded liability.

This policy will be reviewed regularly and amended or revised as necessary.