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**GASB STATEMENT NO. 68 REPORT**  
**FOR THE**  
**TEACHERS' RETIREMENT SYSTEM**  
**OF THE STATE OF KENTUCKY**  
**PREPARED AS OF JUNE 30, 2016**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

March 14, 2017

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, 2016 (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, 2015. 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.

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Board of Trustees  
March 14, 2017  
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 'Eric Gary'.

Eric Gary, FSA, FCA, MAAA  
Principal and Chief Actuary

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

Cathy Turcot  
Principal and Managing Director

EAM/EJK



## **TABLE OF CONTENTS**

<b><u>Section</u></b>	<b><u>Item</u></b>	<b><u>Page No.</u></b>
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, 2016**

**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, 2016 (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, 2017 (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, 2015. The results of that valuation were detailed in a report dated December 17, 2015.

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, 2016 and submitted November 21, 2016 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, 2016 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)**

	2016
<b>Valuation Date:</b>	June 30, 2015
<b>Prior Measurement Date:</b>	June 30, 2015
<b>Measurement Date:</b>	June 30, 2016
<b>Reporting Date:</b>	June 30, 2017
<b>Single Equivalent Interest Rate (SEIR):</b>	
Long-Term Expected Rate of Return	7.50%
Municipal Bond Index Rate at Prior Measurement Date	3.82%
Municipal Bond Index Rate at Measurement Date	3.01%
Fiscal Year in which Plan's Fiduciary Net Position is projected to be depleted from future benefit payments for current members	2040
Single Equivalent Interest Rate at Prior Measurement Date	4.88%
Single Equivalent Interest Rate at Measurement Date	4.20%
<b>Net Pension Liability:</b>	
Total Pension Liability (TPL)	\$ 47,736,901
Fiduciary Net Position (FNP)	<u>16,812,832</u>
Net Pension Liability (NPL = TPL – FNP)	\$ 30,924,069
FNP as a percentage of TPL	35.22%
<b>Pension Expense (PE):</b>	\$2,515,282
<b>Deferred Outflows of Resources:</b>	\$5,302,659
<b>Deferred Inflows of Resources:</b>	\$417,223



### **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, 2015, using the following key actuarial assumptions:

Inflation	3.50 percent
Salary increases, including inflation	4.00 – 8.20 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	3.82 percent
Measurement Date	3.01 percent
Year FNP is projected to be depleted	2040
Single Equivalent Interest Rate, net of pension plan investment expense, including inflation	
Prior Measurement Date	4.88 percent
Measurement Date	4.20 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 AA to 2020 with a set back of 1 year for females.

The actuarial assumptions used in the June 30, 2015 valuation were based on the results of an actuarial experience study for the period July 1, 2005 – June 30, 2010 adopted by the Board on December 19, 2011. The results of the experience study for the period July 1, 2010 – June 30, 2015 will be reflected in the June 30, 2016 valuation and the June 30, 2017 GASB 67 and GASB 68 reports.

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	45.0%	6.4%
Non U.S. Equity	17.0%	6.5%
Fixed Income	24.0%	1.6%
High Yield Bonds	4.0%	3.1%
Real Estate	4.0%	5.8%
Alternatives	4.0%	6.8%
Cash	2.0%	1.5%
Total	100.00%	

*Discount rate.* The discount rate used to measure the TPL as of the Measurement Date was 4.20%. 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 2040 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 at the Measurement Date of 4.20% was calculated using the Municipal Bond Index Rate as of the Measurement Date (3.01%). 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 4.20 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 (3.20 percent) or 1-percentage-point higher (5.20 percent) than the current rate (\$ thousands):

	1% Decrease (3.20%)	Current Discount Rate (4.20%)	1% Increase (5.20%)
System's net pension liability	\$37,937,230	\$30,924,069	\$25,168,197



**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, 2015 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of June 30, 2016 using standard roll forward techniques. The procedure used to determine the TPL as of June 30, 2016 is shown on page 5 of the GASB 67 report for TRS submitted on November 21, 2016.

**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	\$0	\$246,787
Changes of actuarial assumptions or other inputs	4,427,695	170,436
Net difference between projected and actual earnings on plan investments	<u>874,964</u>	<u>0</u>
Total	<u>\$5,302,659</u>	<u>\$417,223</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	\$1,031,276
Year 2	1,031,276
Year 3	1,368,897
Year 4	1,092,823
Year 5	361,164
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)
2016	\$0	\$58,035	5.5	\$0	\$0	\$0	\$58,035	\$0	\$10,552	\$0	\$47,483
2015	0	323,868	5.2	261,586	0	0	0	0	62,282	0	199,304
2014	0	0	5.8	0	0	0	0	0	0	0	0
<b>Total</b>				<u>\$261,556</u>	<u>\$0</u>	<u>\$0</u>	<u>\$58,035</u>			<u>\$0</u>	<u>\$246,787</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)
2016	\$4,030,834	\$0	5.5	\$0	\$0	\$4,030,834	\$0	\$732,879	\$0	\$3,297,955	\$0
2015	1,835,828	0	5.2	1,482,784	0	0	0	353,044	0	1,129,740	0
2014	0	353,043	5.8	0	231,305	0	0	0	60,869	0	170,436
<b>Total</b>				<u>\$1,482,784</u>	<u>\$231,305</u>	<u>\$4,030,833</u>	<u>\$0</u>			<u>\$4,427,695</u>	<u>\$170,436</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)
2016	\$1,561,734	\$0	5.0	\$0	\$0	\$1,561,734	\$0	\$312,347	\$0	\$1,249,387	\$0
2015	460,803	0	5.0	368,642	0	0	0	92,161		276,481	0
2014	0	1,627,260	5.0	0	976,356	0	0		325,452	0	650,904
<b>Total</b>				<u>\$368,642</u>	<u>\$976,358</u>	<u>\$1,561,734</u>	<u>\$0</u>			<u>\$1,525,868</u>	<u>\$650,904</u>
Net difference between projected and actual earnings on investments										\$874,964	\$0



**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, 2015, 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, 2016, the average expected remaining service life for the active members is 11.3 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 5.5 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:



<b>Collective Pension Expense Determined as of the Measurement Date (\$ thousands)</b>	
Service Cost at end of year	\$1,120,893
Interest on the TPL and net cash flow	2,027,457
Current-period benefit changes	0
Expensed portion of current-period difference between expected and actual experience in the total pension liability	(10,552)
Expensed portion of current-period changes of assumptions or other inputs	732,879
Member contributions	(313,044)
Projected earnings on plan investments	(1,316,519)
Expensed portion of current-period differences between projected and actual earnings on plan investments	312,347
Administrative expense	8,636
Other	(43,418)
Recognition of beginning deferred outflows of resources as pension expense	353,044
Recognition of beginning deferred inflows of resources as pension expense	<u>(356,442)</u>
<b>Collective Pension Expense</b>	<b><u>\$2,515,281</u></b>



## **SECTION V – REQUIRED SUPPLEMENTAL INFORMATION**

### **Paragraphs 82:**

***Changes of benefit terms.*** None

***Changes of assumptions.*** In the 2011 valuation and later, the expectation of retired life mortality was changed to the RP-2000 Mortality Tables rather than the 1994 Group Annuity Mortality Table, which was used prior to 2011. In the 2011 valuation, rates of withdrawal, retirement, disability and mortality were adjusted to more closely reflect actual experience. In the 2011 valuation, the Board adopted an interest smoothing methodology to calculate liabilities for purposes of determining the actuarially determined contributions.



# SCHEDULE A

## Teachers' Retirement System of the State of Kentucky Schedule of Employer Allocations as of June 30, 2016

Code	University Employers	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
263	Eastern Kentucky University	\$ 8,995,402	\$ 847,798	\$ 9,843,200	24.5513%	2.3139%	26.8652%
266	Kentucky State University	1,773,512	167,150	1,940,662	4.8405%	0.4562%	5.2967%
269	Morehead State University	4,957,288	467,214	5,424,502	13.5300%	1.2752%	14.8052%
270	Murray State University	5,555,229	523,569	6,078,798	15.1620%	1.4290%	16.5910%
273	Western Kentucky University	9,608,141	905,548	10,513,689	26.2235%	2.4715%	28.6950%
500	KCTCS Central Office - University	<u>2,593,944</u>	<u>244,474</u>	<u>2,838,418</u>	<u>7.0797%</u>	<u>0.6672%</u>	<u>7.7469%</u>
	Total University Contributions	\$ 33,483,516	\$ 3,155,753	\$ 36,639,269	91.3870%	8.6130%	100.0000%



**SCHEDULE A (continued)**

Code	Non-University Employers	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
400	KCTCS Central Office	\$ 2,482,644	\$ 411,102	\$ 2,893,746	0.5115%	0.0847%	0.5962%
801	KY High School Athletic Association	80,135	13,270	93,405	0.0165%	0.0027%	0.0192%
805	KY School Boards Association	209,334	34,664	243,998	0.0431%	0.0071%	0.0502%
806	KY Education Association	26,168	4,333	30,501	0.0054%	0.0009%	0.0063%
807	KY Academic Association	15,293	2,532	17,825	0.0032%	0.0005%	0.0037%
809	Jefferson County Teachers' Association	6,883	1,140	8,023	0.0014%	0.0002%	0.0016%
		<u>\$ 2,820,457</u>	<u>\$ 467,041</u>	<u>\$ 3,287,498</u>	<u>0.5811%</u>	<u>0.0961%</u>	<u>0.6772%</u>

Code	State Agencies	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
301	Technical Education District - Madisonville	\$ 619,620	\$ 102,603	\$ 722,223	0.1277%	0.0211%	0.1488%
302	Technical Education District - Bowling Green	631,629	104,592	736,221	0.1301%	0.0215%	0.1516%
303	Technical Education District - Elizabethtown	480,383	79,547	559,930	0.0990%	0.0164%	0.1154%
304	Technical Education District - Frankfort	637,981	105,644	743,625	0.1314%	0.0218%	0.1532%
305	Technical Education District - Hazard	644,488	106,721	751,209	0.1328%	0.0220%	0.1548%
308	Adult Council on Post Secondary Education	63,731	10,553	74,284	0.0131%	0.0022%	0.0153%
316	Office of Career and Technical Education	234,246	38,789	273,035	0.0483%	0.0080%	0.0563%
317	Office of Secretary of Workforce Investment	9,728	1,611	11,339	0.0020%	0.0003%	0.0023%
318	Department for Vocational Rehabilitation	1,227,704	203,296	1,431,000	0.2529%	0.0419%	0.2948%
320	School for the Blind	364,959	60,434	425,393	0.0752%	0.0125%	0.0877%
330	School for the Deaf	455,980	75,506	531,486	0.0939%	0.0156%	0.1095%
345	Department of Education	1,805,734	299,012	2,104,746	0.3720%	0.0616%	0.4336%
728	Department of Corrections	8,014	1,327	9,341	0.0017%	0.0003%	0.0020%
896	Education Professional Standards Board	105,028	17,392	122,420	0.0216%	0.0036%	0.0252%
		<u>\$ 7,289,225</u>	<u>\$ 1,207,027</u>	<u>\$ 8,496,252</u>	<u>1.5017%</u>	<u>0.2488%</u>	<u>1.7505%</u>



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
1	Adair County Schools	\$ -	\$ 1,598,024	\$ 1,598,024	0.0000%	0.3292%	0.3292%
2	Allen County Schools	-	1,860,044	1,860,044	0.0000%	0.3832%	0.3832%
3	Anderson County Schools	-	2,222,859	2,222,859	0.0000%	0.4579%	0.4579%
4	Ballard County Schools	-	848,233	848,233	0.0000%	0.1747%	0.1747%
5	Barren County Schools	-	3,138,761	3,138,761	0.0000%	0.6466%	0.6466%
6	Bath County Schools	-	1,321,412	1,321,412	0.0000%	0.2722%	0.2722%
7	Bell County Schools	-	1,701,262	1,701,262	0.0000%	0.3505%	0.3505%
8	Boone County Schools	-	14,244,426	14,244,426	0.0000%	2.9346%	2.9346%
9	Bourbon County Schools	-	1,793,957	1,793,957	0.0000%	0.3696%	0.3696%
10	Boyd County Schools	-	2,162,838	2,162,838	0.0000%	0.4456%	0.4456%
11	Boyle County Schools	-	1,994,463	1,994,463	0.0000%	0.4109%	0.4109%
12	Bracken County Schools	-	774,310	774,310	0.0000%	0.1595%	0.1595%
13	Breathitt County Schools	-	1,293,488	1,293,488	0.0000%	0.2665%	0.2665%
14	Breckinridge County Schools	-	1,735,659	1,735,659	0.0000%	0.3576%	0.3576%
15	Bullitt County Schools	-	8,709,687	8,709,687	0.0000%	1.7943%	1.7943%
16	Butler County Schools	-	1,349,110	1,349,110	0.0000%	0.2779%	0.2779%
17	Caldwell County Schools	-	1,168,825	1,168,825	0.0000%	0.2408%	0.2408%
18	Calloway County Schools	-	2,047,792	2,047,792	0.0000%	0.4219%	0.4219%
19	Campbell County Schools	-	3,115,538	3,115,538	0.0000%	0.6419%	0.6419%
20	Carlisle County Schools	-	521,691	521,691	0.0000%	0.1075%	0.1075%
21	Carroll County Schools	-	1,389,906	1,389,906	0.0000%	0.2863%	0.2863%
22	Carter County Schools	-	2,779,957	2,779,957	0.0000%	0.5727%	0.5727%
23	Casey County Schools	-	1,321,076	1,321,076	0.0000%	0.2722%	0.2722%
24	Christian County Schools	-	5,377,369	5,377,369	0.0000%	1.1078%	1.1078%
25	Clark County Schools	-	3,440,113	3,440,113	0.0000%	0.7087%	0.7087%
26	Clay County Schools	-	2,142,346	2,142,346	0.0000%	0.4414%	0.4414%
27	Clinton County Schools	-	1,094,192	1,094,192	0.0000%	0.2254%	0.2254%
28	Crittenden County Schools	-	780,358	780,358	0.0000%	0.1608%	0.1608%
29	Cumberland County Schools	-	608,578	608,578	0.0000%	0.1254%	0.1254%



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
30	Daviess County Schools	-	7,662,499	7,662,499	0.0000%	1.5786%	1.5786%
31	Edmonson County Schools	-	1,176,733	1,176,733	0.0000%	0.2424%	0.2424%
32	Elliott County Schools	-	703,848	703,848	0.0000%	0.1450%	0.1450%
33	Estill County Schools	-	1,539,318	1,539,318	0.0000%	0.3171%	0.3171%
34	Fayette County Schools	-	34,934,106	34,934,106	0.0000%	7.1970%	7.1970%
35	Fleming County Schools	-	1,333,489	1,333,489	0.0000%	0.2747%	0.2747%
36	Floyd County Schools	-	3,757,283	3,757,283	0.0000%	0.7741%	0.7741%
37	Franklin County Schools	-	4,024,549	4,024,549	0.0000%	0.8291%	0.8291%
38	Fulton County Schools	-	385,158	385,158	0.0000%	0.0793%	0.0793%
39	Gallatin County Schools	-	1,097,946	1,097,946	0.0000%	0.2262%	0.2262%
40	Garrard County Schools	-	1,692,817	1,692,817	0.0000%	0.3487%	0.3487%
41	Grant County Schools	-	2,314,244	2,314,244	0.0000%	0.4768%	0.4768%
42	Graves County Schools	-	2,733,577	2,733,577	0.0000%	0.5632%	0.5632%
43	Grayson County Schools	-	2,581,751	2,581,751	0.0000%	0.5319%	0.5319%
44	Green County Schools	-	1,074,328	1,074,328	0.0000%	0.2213%	0.2213%
45	Greenup County Schools	-	1,808,728	1,808,728	0.0000%	0.3726%	0.3726%
46	Hancock County Schools	-	1,186,011	1,186,011	0.0000%	0.2443%	0.2443%
47	Hardin County Schools	-	9,721,088	9,721,088	0.0000%	2.0027%	2.0027%
48	Harlan County Schools	-	2,204,599	2,204,599	0.0000%	0.4542%	0.4542%
49	Harrison County Schools	-	1,787,610	1,787,610	0.0000%	0.3683%	0.3683%
50	Hart County Schools	-	1,721,317	1,721,317	0.0000%	0.3546%	0.3546%
51	Henderson County Schools	-	4,966,126	4,966,126	0.0000%	1.0231%	1.0231%
52	Henry County Schools	-	1,404,071	1,404,071	0.0000%	0.2893%	0.2893%
53	Hickman County Schools	-	576,511	576,511	0.0000%	0.1188%	0.1188%
54	Hopkins County Schools	-	4,605,164	4,605,164	0.0000%	0.9487%	0.9487%
55	Jackson County Schools	-	1,450,385	1,450,385	0.0000%	0.2988%	0.2988%
56	Jefferson County Schools	-	89,226,619	89,226,619	0.0000%	18.3822%	18.3822%
57	Jessamine County Schools	-	5,397,614	5,397,614	0.0000%	1.1120%	1.1120%
58	Johnson County Schools	-	2,445,446	2,445,446	0.0000%	0.5038%	0.5038%



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
59	Kenton County Schools	-	9,448,752	9,448,752	0.0000%	1.9466%	1.9466%
60	Knott Counts Schools	-	1,547,058	1,547,058	0.0000%	0.3187%	0.3187%
61	Knox County Schools	-	2,933,432	2,933,432	0.0000%	0.6043%	0.6043%
62	Larue County Schools	-	1,673,861	1,673,861	0.0000%	0.3448%	0.3448%
63	Laurel County Schools	-	5,625,852	5,625,852	0.0000%	1.1590%	1.1590%
64	Lawrence County Schools	-	1,622,905	1,622,905	0.0000%	0.3343%	0.3343%
65	Lee County Schools	-	545,553	545,553	0.0000%	0.1124%	0.1124%
66	Leslie County Schools	-	1,138,580	1,138,580	0.0000%	0.2346%	0.2346%
67	Letcher County Schools	-	2,121,035	2,121,035	0.0000%	0.4370%	0.4370%
68	Lewis County Schools	-	1,448,162	1,448,162	0.0000%	0.2983%	0.2983%
69	Lincoln County Schools	-	2,386,731	2,386,731	0.0000%	0.4917%	0.4917%
70	Livingston County Schools	-	904,732	904,732	0.0000%	0.1864%	0.1864%
71	Logan County Schools	-	2,357,181	2,357,181	0.0000%	0.4856%	0.4856%
72	Lyon County Schools	-	554,365	554,365	0.0000%	0.1142%	0.1142%
73	Madison County Schools	-	6,915,230	6,915,230	0.0000%	1.4247%	1.4247%
74	Magoffin County Schools	-	1,352,219	1,352,219	0.0000%	0.2786%	0.2786%
75	Marion County Schools	-	2,236,138	2,236,138	0.0000%	0.4607%	0.4607%
76	Marshall County Schools	-	3,184,232	3,184,232	0.0000%	0.6560%	0.6560%
77	Martin County Schools	-	1,198,467	1,198,467	0.0000%	0.2469%	0.2469%
78	Mason County Schools	-	1,816,220	1,816,220	0.0000%	0.3742%	0.3742%
79	McCracken County Schools	-	4,610,872	4,610,872	0.0000%	0.9499%	0.9499%
80	McCreary County Schools	-	1,820,003	1,820,003	0.0000%	0.3750%	0.3750%
81	McLean County Schools	-	1,035,016	1,035,016	0.0000%	0.2132%	0.2132%
82	Meade County Schools	-	2,833,437	2,833,437	0.0000%	0.5837%	0.5837%
83	Menifee County Schools	-	586,625	586,625	0.0000%	0.1209%	0.1209%
84	Mercer County Schools	-	1,934,795	1,934,795	0.0000%	0.3986%	0.3986%
85	Metcalf County Schools	-	968,546	968,546	0.0000%	0.1995%	0.1995%
86	Monroe County Schools	-	1,228,001	1,228,001	0.0000%	0.2530%	0.2530%
87	Montgomery County Schools	-	3,098,884	3,098,884	0.0000%	0.6384%	0.6384%



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
88	Morgan County Schools	-	1,147,491	1,147,491	0.0000%	0.2364%	0.2364%
89	Muhlenberg County Schools	-	2,893,473	2,893,473	0.0000%	0.5961%	0.5961%
90	Nelson County Schools	-	3,006,556	3,006,556	0.0000%	0.6194%	0.6194%
91	Nicholas County Schools	-	685,638	685,638	0.0000%	0.1413%	0.1413%
92	Ohio County Schools	-	2,470,030	2,470,030	0.0000%	0.5089%	0.5089%
93	Oldham County Schools	-	8,334,978	8,334,978	0.0000%	1.7171%	1.7171%
94	Owen County Schools	-	1,097,038	1,097,038	0.0000%	0.2260%	0.2260%
95	Owsley County Schools	-	473,963	473,963	0.0000%	0.0976%	0.0976%
96	Pendleton County Schools	-	1,496,418	1,496,418	0.0000%	0.3083%	0.3083%
97	Perry County Schools	-	2,488,898	2,488,898	0.0000%	0.5128%	0.5128%
98	Pike County Schools	-	5,819,247	5,819,247	0.0000%	1.1989%	1.1989%
99	Powell County Schools	-	1,482,856	1,482,856	0.0000%	0.3055%	0.3055%
100	Pulaski County Schools	-	4,990,190	4,990,190	0.0000%	1.0281%	1.0281%
101	Robertson County Schools	-	228,381	228,381	0.0000%	0.0471%	0.0471%
102	Rockcastle County Schools	-	1,917,442	1,917,442	0.0000%	0.3950%	0.3950%
103	Rowan County Schools	-	1,871,620	1,871,620	0.0000%	0.3856%	0.3856%
104	Russell County Schools	-	1,908,068	1,908,068	0.0000%	0.3931%	0.3931%
105	Scott County Schools	-	5,583,483	5,583,483	0.0000%	1.1503%	1.1503%
106	Shelby County Schools	-	5,157,815	5,157,815	0.0000%	1.0626%	1.0626%
107	Simpson County Schools	-	1,956,980	1,956,980	0.0000%	0.4032%	0.4032%
108	Spencer County Schools	-	1,789,331	1,789,331	0.0000%	0.3686%	0.3686%
109	Taylor County Schools	-	1,666,284	1,666,284	0.0000%	0.3433%	0.3433%
110	Todd County Schools	-	1,181,048	1,181,048	0.0000%	0.2433%	0.2433%
111	Trigg County Schools	-	1,447,013	1,447,013	0.0000%	0.2981%	0.2981%
112	Trimble County Schools	-	905,212	905,212	0.0000%	0.1865%	0.1865%
113	Union County Schools	-	1,529,836	1,529,836	0.0000%	0.3152%	0.3152%
114	Warren County Schools	-	8,994,888	8,994,888	0.0000%	1.8531%	1.8531%
115	Washington County Schools	-	1,220,180	1,220,180	0.0000%	0.2514%	0.2514%
116	Wayne County Schools	-	2,041,131	2,041,131	0.0000%	0.4205%	0.4205%



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
117	Webster County Schools	-	1,309,730	1,309,730	0.0000%	0.2698%	0.2698%
118	Whitley County Schools	-	2,872,266	2,872,266	0.0000%	0.5917%	0.5917%
119	Wolfe County Schools	-	954,935	954,935	0.0000%	0.1967%	0.1967%
120	Woodford County Schools	-	2,547,780	2,547,780	0.0000%	0.5249%	0.5249%
122	Anchorage City Schools	-	521,071	521,071	0.0000%	0.1073%	0.1073%
124	Ashland City Schools	-	2,136,509	2,136,509	0.0000%	0.4402%	0.4402%
125	Augusta City Schools	-	212,146	212,146	0.0000%	0.0437%	0.0437%
126	Barbourville City Schools	-	396,797	396,797	0.0000%	0.0817%	0.0817%
127	Bardstown City Schools	-	1,954,829	1,954,829	0.0000%	0.4027%	0.4027%
128	Beechwood Independent Schools	-	981,718	981,718	0.0000%	0.2022%	0.2022%
129	Bellevue City Schools	-	575,129	575,129	0.0000%	0.1185%	0.1185%
131	Berea City Schools	-	756,284	756,284	0.0000%	0.1558%	0.1558%
134	Bowling Green City Schools	-	2,880,932	2,880,932	0.0000%	0.5935%	0.5935%
136	Burgin City Schools	-	317,826	317,826	0.0000%	0.0655%	0.0655%
140	Campbellsville City Schools	-	832,207	832,207	0.0000%	0.1714%	0.1714%
144	Caverna City Schools	-	529,754	529,754	0.0000%	0.1091%	0.1091%
147	Cloverport City Schools	-	278,829	278,829	0.0000%	0.0574%	0.0574%
150	Corbin City Schools	-	1,813,374	1,813,374	0.0000%	0.3736%	0.3736%
151	Covington City Schools	-	3,270,252	3,270,252	0.0000%	0.6737%	0.6737%
154	Danville City Schools	-	1,617,799	1,617,799	0.0000%	0.3333%	0.3333%
155	Dawson Springs City Schools	-	430,113	430,113	0.0000%	0.0886%	0.0886%
156	Dayton City Schools	-	670,020	670,020	0.0000%	0.1380%	0.1380%
158	East Bernstadt City Schools	-	325,883	325,883	0.0000%	0.0671%	0.0671%
160	Elizabethtown City Schools	-	1,726,242	1,726,242	0.0000%	0.3556%	0.3556%
161	Eminence Independent Schools	-	519,229	519,229	0.0000%	0.1070%	0.1070%
162	Erlanger-Elsmere City Schools	-	1,708,495	1,708,495	0.0000%	0.3520%	0.3520%
163	Fairview Independent Schools	-	547,251	547,251	0.0000%	0.1127%	0.1127%
166	Fort Thomas Independent Schools	-	2,244,308	2,244,308	0.0000%	0.4624%	0.4624%
167	Frankfort City Schools	-	613,993	613,993	0.0000%	0.1265%	0.1265%



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
170	Fulton City Schools	-	273,643	273,643	0.0000%	0.0564%	0.0564%
173	Glasgow City Schools	-	1,521,490	1,521,490	0.0000%	0.3135%	0.3135%
180	Harlan City Schools	-	466,736	466,736	0.0000%	0.0962%	0.0962%
182	Hazard Independent Schools	-	669,943	669,943	0.0000%	0.1380%	0.1380%
190	Jackson City Schools	-	175,096	175,096	0.0000%	0.0361%	0.0361%
191	Jenkins City Schools	-	365,823	365,823	0.0000%	0.0754%	0.0754%
206	Ludlow City Schools	-	667,144	667,144	0.0000%	0.1374%	0.1374%
210	Mayfield City Schools	-	1,146,199	1,146,199	0.0000%	0.2361%	0.2361%
214	Middlesboro City Schools	-	784,064	784,064	0.0000%	0.1615%	0.1615%
221	Murray City Schools	-	1,099,106	1,099,106	0.0000%	0.2264%	0.2264%
222	Newport City Schools	-	1,496,673	1,496,673	0.0000%	0.3083%	0.3083%
224	Owensboro City Schools	-	3,501,616	3,501,616	0.0000%	0.7214%	0.7214%
226	Paducah City Schools	-	2,062,715	2,062,715	0.0000%	0.4250%	0.4250%
227	Paintsville City Schools	-	631,645	631,645	0.0000%	0.1301%	0.1301%
228	Paris City Schools	-	493,076	493,076	0.0000%	0.1016%	0.1016%
230	Pikeville City Schools	-	1,025,555	1,025,555	0.0000%	0.2113%	0.2113%
231	Pineville City Schools	-	314,876	314,876	0.0000%	0.0649%	0.0649%
235	Raceland City Schools	-	709,504	709,504	0.0000%	0.1462%	0.1462%
238	Russell City Schools	-	1,572,986	1,572,986	0.0000%	0.3242%	0.3242%
239	Russellville City Schools	-	654,078	654,078	0.0000%	0.1348%	0.1348%
240	Science Hill City Schools	-	283,799	283,799	0.0000%	0.0585%	0.0585%
245	Silver Grove City Schools	-	195,806	195,806	0.0000%	0.0403%	0.0403%
246	Somerset City Schools	-	1,098,124	1,098,124	0.0000%	0.2262%	0.2262%
247	Southgate City Schools	-	152,047	152,047	0.0000%	0.0313%	0.0313%
258	Walton-Verona Independent Schools	-	1,192,031	1,192,031	0.0000%	0.2456%	0.2456%
259	West Point City Schools	-	105,583	105,583	0.0000%	0.0218%	0.0218%
260	Williamsburg City Schools	-	517,303	517,303	0.0000%	0.1066%	0.1066%
261	Williamstown City Schools	-	525,133	525,133	0.0000%	0.1082%	0.1082%
870	Ohio Valley Educational Cooperative	-	371,333	371,333	0.0000%	0.0765%	0.0765%



**SCHEDULE A (continued)**

Code	Local School Districts and Educational Cooperatives	Contributions			Allocation Percentage		
		Employer	State	Total	Employer	State	Total
871	West Kentucky Educational Cooperative	-	170,395	170,395	0.0000%	0.0351%	0.0351%
872	Southeast South-Central Educational Cooperative	-	26,425	26,425	0.0000%	0.0054%	0.0054%
890	Green River Regional Educational Cooperative	-	181,700	181,700	0.0000%	0.0374%	0.0374%
891	Central KY Special Education Cooperative	-	62,480	62,480	0.0000%	0.0129%	0.0129%
892	KY Valley Educational Cooperative	-	103,469	103,469	0.0000%	0.0213%	0.0213%
894	KY Educational Development Corporation	-	268,680	268,680	0.0000%	0.0554%	0.0554%
895	Northern KY Cooperative for Educational Services	-	221,097	221,097	<u>0.0000%</u>	<u>0.0455%</u>	<u>0.0455%</u>
		\$ -	\$473,614,655	473,614,655	0.0000%	97.5723%	97.5723%
	Total Non-University Contributions	<u>10,109,682</u>	<u>475,288,723</u>	<u>485,398,405</u>	<u>2.0828%</u>	<u>97.9172%</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, 2016

					Deferred Outflows of Resources				
					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 Outflows of Resources		
		June 30, 2016	Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability				Total Net Pension Liability	Change of Assumptions
Code	Employer								
<u>University Employers</u>									
263	Eastern Kentucky University	\$ 349,600,340	\$ 32,949,104	\$ 382,549,444	\$ 51,425,867	\$ 10,801,861	\$ 14,526,082	\$ 76,753,810	
266	Kentucky State University	68,926,374	6,496,181	75,422,555	10,139,002	2,129,669	-	12,268,671	
269	Morehead State University	192,661,717	18,157,966	210,819,683	28,340,349	5,952,812	6,874,786	41,167,947	
270	Murray State University	215,900,304	20,348,160	236,248,464	31,758,723	6,670,832	3,757,695	42,187,250	
273	Western Kentucky University	373,414,035	35,193,522	408,607,557	54,928,836	11,537,648	3,185,715	69,652,199	
500	KCTCS Central Office - University	100,811,921	9,501,322	110,313,243	14,829,335	3,114,861	-	17,944,196	
Total University		\$ 1,301,314,691	\$ 122,646,255	\$ 1,423,960,946	\$ 191,422,112	\$ 40,207,683	\$ 28,344,278	\$ 259,974,073	

		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	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									
<u>University Employers</u>										
263	Eastern Kentucky University	\$ 8,795,384	\$ 2,021,060	\$ -	\$ 10,816,444	\$ 27,496,978	\$ 2,591,533	\$ 30,088,511	\$ 3,855,445	\$ 33,943,956
266	Kentucky State University	1,734,077	398,467	11,251,223	13,383,767	5,421,238	510,942	5,932,180	(2,938,785)	2,993,395
269	Morehead State University	4,847,060	1,113,789	-	5,960,849	15,153,348	1,428,171	16,581,519	1,719,941	18,301,460
270	Murray State University	5,431,706	1,248,132	849,163	7,529,001	16,981,123	1,600,436	18,581,559	985,576	19,567,135
273	Western Kentucky University	9,394,500	2,158,730	102,578	11,655,808	29,369,991	2,768,062	32,138,053	675,882	32,813,935
500	KCTCS Central Office - University	2,536,266	582,800	3,769,820	6,888,886	7,929,121	747,304	8,676,425	(951,468)	7,724,957
Total University		\$ 32,738,993	\$ 7,522,978	\$ 15,972,784	\$ 56,234,755	\$ 102,351,799	\$ 9,646,448	\$ 111,998,247	\$ 3,346,591	\$ 115,344,838



# SCHEDULE B (continued)

					<u>Deferred Outflows of Resources</u>			
					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 Outflows of Resources	
		Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability				Change of Assumptions
Code	Employer							
<u>Non-University Employers</u>								
400	KCTCS Central Office	\$ 150,882,433	\$ 24,984,821	\$ 175,867,254	\$ 21,574,735	\$ 4,250,102	\$ -	\$ 25,824,837
801	KY High School Athletic Association	4,870,173	806,533	5,676,706	696,388	137,185	41,145	874,718
805	KY School Boards Association	12,722,217	2,106,603	14,828,820	1,819,154	358,363	575,322	2,752,839
806	KY Education Association	1,590,351	263,436	1,853,787	227,405	44,797	99,892	372,094
807	KY Academic Association	929,548	153,991	1,083,539	132,916	26,184	5,025	164,125
809	Jefferson County Teachers' Association	418,312	69,325	487,637	59,815	11,783	8,783	80,381
	Total - Other Employers	\$ 171,413,034	\$ 28,384,709	\$ 199,797,743	\$ 24,510,413	\$ 4,828,414	\$ 730,167	\$ 30,068,994

CodeEmployer		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	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
<u>Non-University Employers</u>										
400	KCTCS Central Office	\$ 1,078,993	\$ 829,609	\$ 20,248,473	\$ 22,157,075	\$ 12,291,876	\$ 2,035,436	\$ 14,327,312	\$ (5,211,088)	\$ 9,116,224
801	KY High School Athletic Association	34,828	26,778	52,850	114,456	396,758	65,706	462,464	1,113	463,577
805	KY School Boards Association	90,979	69,952	-	160,931	1,036,464	171,618	1,208,082	145,661	1,353,743
806	KY Education Association	11,373	8,744	2,444	22,561	129,561	21,461	151,022	21,434	172,456
807	KY Academic Association	6,647	5,111	1,687	13,445	75,704	12,545	88,249	1,195	89,444
809	Jefferson County Teachers' Association	2,991	2,300	-	5,291	34,078	5,648	39,726	2,136	41,862
Total - Other Employers		\$ 1,225,811	\$ 942,494	\$ 20,305,454	\$ 22,473,759	\$ 13,964,441	\$ 2,312,414	\$ 16,276,855	\$ (5,039,549)	\$ 11,237,306



## SCHEDULE B (continued)

Code	Employer	June 30, 2016			Deferred Outflows of Resources			
		Employer's	State's	Total	Change of	Changes in		Total
		Proportionate	Proportionate	Net Pension		Proportion	and Differences	
		Share of	Share of	Liability	Assumptions	Between	Between	Deferred
		Net Pension	Net Pension			Employer	Employer	Outflows
		Liability	Liability			and Proportionate	Contributions	of
						Share of	Share of	Resources
						Contributions	Contributions	
<b>State Agencies</b>								
301	Technical Education District - Madisonville	\$ 37,657,478	\$ 6,235,733	\$ 43,893,211	\$ 5,384,657	\$ 1,060,747	\$ 4,366,751	\$ 10,812,155
302	Technical Education District - Bowling Green	38,387,310	6,356,683	44,743,993	5,489,016	1,081,305	864,329	7,434,650
303	Technical Education District - Elizabethtown	29,195,372	4,834,478	34,029,850	4,174,657	822,384	1,045,330	6,042,371
304	Technical Education District - Frankfort	38,773,467	6,420,403	45,193,870	5,544,233	1,092,183	-	6,636,416
305	Technical Education District - Hazard	39,168,768	6,485,894	45,654,662	5,600,757	1,103,318	-	6,704,075
308	Adult Council on Post Secondary Education	3,873,364	641,332	4,514,696	553,854	109,106	-	662,960
316	Office of Career and Technical Education	14,236,457	2,357,354	16,593,811	2,035,676	401,017	6,600,516	9,037,209
317	Office of Secretary of Workforce Investment	591,182	97,940	689,122	84,533	16,653	562	101,748
318	Department for Vocational Rehabilitation	74,613,738	12,355,235	86,968,973	10,669,046	2,101,743	1,203,393	13,974,182
320	School for the Blind	22,180,541	3,672,763	25,853,304	3,171,604	624,788	-	3,796,392
330	School for the Deaf	27,712,106	4,588,742	32,300,848	3,962,564	780,603	-	4,743,167
345	Department of Education	109,743,646	18,172,361	127,916,007	15,692,285	3,091,293	706,528	19,490,106
728	Department of Corrections	487,047	80,535	567,582	69,643	13,719	38,045	121,407
896	Education Professional Standards Board	6,382,938	1,056,989	7,439,927	912,699	179,797	387,959	1,480,455
	Total - State Agencies	\$ 443,003,414	\$ 73,356,442	\$ 516,359,856	\$ 63,345,224		\$ 15,213,413	\$ 91,037,293



## SCHEDULE B (continued)

		Deferred Inflows of Resources								
Code	Employer	Differences Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	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	Total Pension Expense
				Contributions						
State Agencies										
301	Technical Education District - Madisonville	\$ 269,297	\$ 207,055	\$ -	\$ 476,352	\$ 3,067,837	\$ 508,006	\$ 3,575,843	\$ 1,327,556	\$ 4,903,399
302	Technical Education District - Bowling Green	274,516	211,068	-	485,584	3,127,295	517,859	3,645,154	249,359	3,894,513
303	Technical Education District - Elizabethtown	208,782	160,527	2,299,573	2,668,882	2,378,456	393,850	2,772,306	(184,350)	2,587,956
304	Technical Education District - Frankfort	277,277	213,191	4,227,157	4,717,625	3,158,754	523,050	3,681,804	(1,222,736)	2,459,068
305	Technical Education District - Hazard	280,104	215,365	1,929,689	2,425,158	3,190,957	528,386	3,719,343	(576,921)	3,142,422
308	Adult Council on Post Secondary Education	27,699	21,297	513,688	562,684	315,551	52,247	367,798	(125,995)	241,803
316	Office of Career and Technical Education	101,808	78,277	-	180,085	1,159,800	192,046	1,351,846	1,936,645	3,288,491
317	Office of Secretary of Workforce Investment	4,228	3,251	207,083	214,562	48,162	7,979	56,141	(64,589)	(8,448)
318	Department for Vocational Rehabilitation	533,579	410,255	1,937,302	2,881,136	6,078,549	1,006,543	7,085,092	(54,451)	7,030,641
320	School for the Blind	158,618	121,957	219,258	499,833	1,806,979	299,209	2,106,188	(52,378)	2,053,810
330	School for the Deaf	198,175	152,372	2,117,577	2,468,124	2,257,643	373,831	2,631,474	(530,483)	2,100,991
345	Department of Education	784,800	603,412	1,122,237	2,510,449	8,940,473	1,480,446	10,420,919	(28,596)	10,392,323
728	Department of Corrections	3,483	2,678	101,708	107,869	39,678	6,561	46,239	(23,329)	22,910
896	Education Professional Standards Board	45,646	35,096	1,609,139	1,689,881	520,022	86,110	606,132	(236,349)	369,783
Total - State Agencies		\$ 3,168,012	\$ 2,435,801	\$ 16,284,411	\$ 21,888,224	\$ 36,090,156	\$ 5,976,123	\$ 42,066,279	\$ 413,383	\$ 42,479,662



## SCHEDULE B (continued)

					<u>Deferred Outflows of Resources</u>		
					Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		Total Deferred Outflows of Resources
		June 30, 2016			Change of Assumptions		
Code	Employer	Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability			
<b><i>Local School Districts and Educational Cooperatives</i></b>							
1	Adair County Schools	\$ -	\$ 97,119,960	\$ 97,119,960			
2	Allen County Schools	-	113,044,119	113,044,119			
3	Anderson County Schools	-	135,094,269	135,094,269			
4	Ballard County Schools	-	51,551,439	51,551,439			
5	Barren County Schools	-	190,758,318	190,758,318			
6	Bath County Schools	-	80,308,734	80,308,734			
7	Bell County Schools	-	103,394,338	103,394,338			
8	Boone County Schools	-	865,705,447	865,705,447			
9	Bourbon County Schools	-	109,027,679	109,027,679			
10	Boyd County Schools	-	131,446,581	131,446,581			
11	Boyle County Schools	-	121,213,583	121,213,583			
12	Bracken County Schools	-	47,058,867	47,058,867			
13	Breathitt County Schools	-	78,611,888	78,611,888			
14	Breckinridge County Schools	-	105,484,716	105,484,716			
15	Bullitt County Schools	-	529,331,646	529,331,646			
16	Butler County Schools	-	81,992,305	81,992,305			
17	Caldwell County Schools	-	71,035,375	71,035,375			
18	Calloway County Schools	-	124,454,760	124,454,760			
19	Campbell County Schools	-	189,347,033	189,347,033			
20	Carlisle County Schools	-	31,705,831	31,705,831			
21	Carroll County Schools	-	84,471,494	84,471,494			
22	Carter County Schools	-	168,952,133	168,952,133			
23	Casey County Schools	-	80,288,379	80,288,379			
24	Christian County Schools	-	326,809,865	326,809,865			
25	Clark County Schools	-	209,072,870	209,072,870			
26	Clay County Schools	-	130,201,086	130,201,086			
27	Clinton County Schools	-	66,499,438	66,499,438			
28	Crittenden County Schools	-	47,426,143	47,426,143			
29	Cumberland County Schools	-	36,986,350	36,986,350			
30	Daviess County Schools	-	465,688,704	465,688,704			
31	Edmonson County Schools	-	71,515,932	71,515,932			
32	Elliott County Schools	-	42,776,336	42,776,336			
33	Estill County Schools	-	93,552,217	93,552,217			
34	Fayette County Schools	-	2,123,121,587	2,123,121,587			
35	Fleming County Schools	-	81,042,991	81,042,991			
36	Floyd County Schools	-	228,349,125	228,349,125			
37	Franklin County Schools	-	244,592,180	244,592,180			
38	Fulton County Schools	-	23,408,041	23,408,041			
39	Gallatin County Schools	-	66,727,769	66,727,769			
40	Garrard County Schools	-	102,881,036	102,881,036			



# SCHEDULE B (continued)

Code	Employer	June 30, 2016			Deferred Outflows of Resources	
		Employer's	State's	Total	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	Change of Assumptions	
41	Grant County Schools	-	140,648,255	140,648,255		
42	Graves County Schools	-	166,133,398	166,133,398		
43	Grayson County Schools	-	156,906,059	156,906,059		
44	Green County Schools	-	65,292,294	65,292,294		
45	Greenup County Schools	-	109,925,662	109,925,662		
46	Hancock County Schools	-	72,079,974	72,079,974		
47	Hardin County Schools	-	590,799,546	590,799,546		
48	Harlan County Schools	-	133,984,475	133,984,475		
49	Harrison County Schools	-	108,642,112	108,642,112		
50	Hart County Schools	-	104,612,988	104,612,988		
51	Henderson County Schools	-	301,816,489	301,816,489		
52	Henry County Schools	-	85,332,602	85,332,602		
53	Hickman County Schools	-	35,037,573	35,037,573		
54	Hopkins County Schools	-	279,879,029	279,879,029		
55	Jackson County Schools	-	88,147,207	88,147,207		
56	Jefferson County Schools	-	5,422,750,549	5,422,750,549		
57	Jessamine County Schools	-	328,040,315	328,040,315		
58	Johnson County Schools	-	148,622,134	148,622,134		
59	Kenton County Schools	-	574,248,216	574,248,216		
60	Knott Counts Schools	-	94,022,449	94,022,449		
61	Knox County Schools	-	178,279,477	178,279,477		
62	Larue County Schools	-	101,729,057	101,729,057		
63	Laurel County Schools	-	341,911,266	341,911,266		
64	Law rence County Schools	-	98,632,136	98,632,136		
65	Lee County Schools	-	33,156,056	33,156,056		
66	Leslie County Schools	-	69,197,223	69,197,223		
67	Letcher County Schools	-	128,906,032	128,906,032		
68	Lew is County Schools	-	88,012,097	88,012,097		
69	Lincoln County Schools	-	145,053,801	145,053,801		
70	Livingston County Schools	-	54,985,251	54,985,251		
71	Logan County Schools	-	143,257,834	143,257,834		
72	Lyon County Schools	-	33,691,483	33,691,483		
73	Madison County Schools	-	420,273,287	420,273,287		
74	Magoffin County Schools	-	82,181,106	82,181,106		
75	Marion County Schools	-	135,901,392	135,901,392		
76	Marshall County Schools	-	193,521,888	193,521,888		
77	Martin County Schools	-	72,836,946	72,836,946		
78	Mason County Schools	-	110,380,849	110,380,849		
79	McCracken County Schools	-	280,225,950	280,225,950		
80	McCreary County Schools	-	110,610,655	110,610,655		



## SCHEDULE B (continued)

Code	Employer	June 30, 2016			Deferred Outflows of Resources	
		Employer's	State's	Total	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	Change of Assumptions	
81	McLean County Schools	-	62,903,080	62,903,080		
82	Meade County Schools	-	172,202,160	172,202,160		
83	Menifee County Schools	-	35,652,060	35,652,060		
84	Mercer County Schools	-	117,587,135	117,587,135		
85	Metcalf County Schools	-	58,863,335	58,863,335		
86	Monroe County Schools	-	74,631,733	74,631,733		
87	Montgomery County Schools	-	188,334,884	188,334,884		
88	Morgan County Schools	-	69,738,845	69,738,845		
89	Muhlenberg County Schools	-	175,851,028	175,851,028		
90	Nelson County Schools	-	182,723,668	182,723,668		
91	Nicholas County Schools	-	41,669,787	41,669,787		
92	Ohio County Schools	-	150,116,314	150,116,314		
93	Oldham County Schools	-	506,558,743	506,558,743		
94	Owen County Schools	-	66,672,604	66,672,604		
95	Owsley County Schools	-	28,805,085	28,805,085		
96	Pendleton County Schools	-	90,944,998	90,944,998		
97	Perry County Schools	-	151,262,983	151,262,983		
98	Pike County Schools	-	353,664,994	353,664,994		
99	Powell County Schools	-	90,120,765	90,120,765		
100	Pulaski County Schools	-	303,279,104	303,279,104		
101	Robertson County Schools	-	13,879,801	13,879,801		
102	Rockcastle County Schools	-	116,532,506	116,532,506		
103	Rowan County Schools	-	113,747,696	113,747,696		
104	Russell County Schools	-	115,962,859	115,962,859		
105	Scott County Schools	-	339,336,496	339,336,496		
106	Shelby County Schools	-	313,466,377	313,466,377		
107	Simpson County Schools	-	118,935,585	118,935,585		
108	Spencer County Schools	-	108,746,543	108,746,543		
109	Taylor County Schools	-	101,268,560	101,268,560		
110	Todd County Schools	-	71,778,188	71,778,188		
111	Trigg County Schools	-	87,942,182	87,942,182		
112	Trimble County Schools	-	55,014,161	55,014,161		
113	Union County Schools	-	92,975,785	92,975,785		
114	Warren County Schools	-	546,664,730	546,664,730		
115	Washington County Schools	-	74,156,486	74,156,486		
116	Wayne County Schools	-	124,049,724	124,049,724		
117	Webster County Schools	-	79,598,961	79,598,961		
118	Whitley County Schools	-	174,562,169	174,562,169		
119	Wolfe County Schools	-	58,036,152	58,036,152		
120	Woodford County Schools	-	154,841,346	154,841,346		



## SCHEDULE B (continued)

Code	Employer	June 30, 2016			Deferred Outflows of Resources		
		Employer's	State's	Total	Change of	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			
122	Anchorage City Schools	-	31,668,071	31,668,071			
124	Ashland City Schools	-	129,846,495	129,846,495			
125	Augusta City Schools	-	12,893,317	12,893,317			
126	Barbourville City Schools	-	24,115,453	24,115,453			
127	Bardstow n City Schools	-	118,804,900	118,804,900			
128	Beechw ood Independent Schools	-	59,663,968	59,663,968			
129	Bellevue City Schools	-	34,953,498	34,953,498			
131	Berea City Schools	-	45,963,233	45,963,233			
134	Bow ling Green City Schools	-	175,088,745	175,088,745			
136	Burgin City Schools	-	19,315,786	19,315,786			
140	Campbellsville City Schools	-	50,577,345	50,577,345			
144	Caverna City Schools	-	32,195,828	32,195,828			
147	Cloverport City Schools	-	16,945,747	16,945,747			
150	Corbin City Schools	-	110,207,978	110,207,978			
151	Covington City Schools	-	198,749,602	198,749,602			
154	Danville City Schools	-	98,321,795	98,321,795			
155	Daw son Springs City Schools	-	26,140,046	26,140,046			
156	Dayton City Schools	-	40,720,474	40,720,474			
158	East Bernstadt City Schools	-	19,805,487	19,805,487			
160	Elizabethtow n City Schools	-	104,912,414	104,912,414			
161	Eminence Independent Schools	-	31,556,265	31,556,265			
162	Erlanger-Elsmere City Schools	-	103,833,890	103,833,890			
163	Fairview Independent Schools	-	33,259,307	33,259,307			
166	Fort Thomas Independent Schools	-	136,397,879	136,397,879			
167	Frankfort City Schools	-	37,315,572	37,315,572			
170	Fulton City Schools	-	16,630,686	16,630,686			
173	Glasgow City Schools	-	92,468,678	92,468,678			
180	Harlan City Schools	-	28,365,829	28,365,829			
182	Hazard Independent Schools	-	40,715,754	40,715,754			
190	Jackson City Schools	-	10,641,574	10,641,574			
191	Jenkins City Schools	-	22,233,051	22,233,051			
206	Ludlow City Schools	-	40,545,833	40,545,833			
210	Mayfield City Schools	-	69,660,375	69,660,375			
214	Middlesboro City Schools	-	47,651,524	47,651,524			
221	Murray City Schools	-	66,798,274	66,798,274			
222	New port City Schools	-	90,960,338	90,960,338			
224	Ow ensboro City Schools	-	212,810,828	212,810,828			
226	Paducah City Schools	-	125,361,594	125,361,594			
227	Paintsville City Schools	-	38,388,195	38,388,195			
228	Paris City Schools	-	29,966,800	29,966,800			



# SCHEDULE B (continued)

Code	Employer	June 30, 2016			Deferred Outflows of Resources		
		Employer's Proportionate Share of Net Pension Liability	State's Proportionate Share of Net Pension Liability	Total Net Pension Liability	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
230	Pikeville City Schools	-	62,328,123	62,328,123			
231	Pineville City Schools	-	19,136,720	19,136,720			
235	Raceland City Schools	-	43,120,013	43,120,013			
238	Russell City Schools	-	95,598,345	95,598,345			
239	Russellville City Schools	-	39,751,690	39,751,690			
240	Science Hill City Schools	-	17,247,828	17,247,828			
245	Silver Grove City Schools	-	11,900,049	11,900,049			
246	Somerset City Schools	-	66,738,389	66,738,389			
247	Southgate City Schools	-	9,240,614	9,240,614			
258	Walton-Verona Independent Schools	-	72,445,775	72,445,775			
259	West Point City Schools	-	6,416,863	6,416,863			
260	Williamsburg City Schools	-	31,439,150	31,439,150			
261	Williamstown City Schools	-	31,914,987	31,914,987			
870	Ohio Valley Educational Cooperative	-	22,567,878	22,567,878			
871	West Kentucky Educational Cooperative	-	10,355,718	10,355,718			
872	Southeast South-Central Educational Cooperative	-	1,605,986	1,605,986			
890	Green River Regional Educational Cooperative	-	11,042,775	11,042,775			
891	Central KY Special Education Cooperative	-	3,797,254	3,797,254			
892	KY Valley Educational Cooperative	-	6,288,243	6,288,243			
894	KY Educational Development Corporation	-	16,328,900	16,328,900			
895	Northern KY Cooperative for Educational Services	-	13,437,299	13,437,299			
	Total - Local School Districts	\$ -	\$ 28,783,950,315	\$ 28,783,950,315			
	Total Non University	\$ 614,416,448	\$ 28,885,691,466	\$ 29,500,107,914			
	State's Proportionate Share of Outflow s/Inflow s				\$ 4,148,416,959	\$ 817,450,465	\$ 20,646,293 \$ 4,986,513,717



## SCHEDULE B (continued)

CodeEmployer		Deferred Inflows of Resources				Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of									
		Differences Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	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	Total Pension Expense					
<u>Local School Districts and Educational Cooperatives</u>															
1	Adair County Schools					\$	-	\$	7,912,061	\$	7,912,061	\$	-	\$	7,912,061
2	Allen County Schools						-		9,209,353		9,209,353		-		9,209,353
3	Anderson County Schools						-		11,005,710		11,005,710		-		11,005,710
4	Ballard County Schools						-		4,199,735		4,199,735		-		4,199,735
5	Barren County Schools						-		15,540,487		15,540,487		-		15,540,487
6	Bath County Schools						-		6,542,503		6,542,503		-		6,542,503
7	Bell County Schools						-		8,423,215		8,423,215		-		8,423,215
8	Boone County Schools						-		70,526,330		70,526,330		-		70,526,330
9	Bourbon County Schools						-		8,882,146		8,882,146		-		8,882,146
10	Boyd County Schools						-		10,708,544		10,708,544		-		10,708,544
11	Boyle County Schools						-		9,874,894		9,874,894		-		9,874,894
12	Bracken County Schools						-		3,833,740		3,833,740		-		3,833,740
13	Breathitt County Schools						-		6,404,266		6,404,266		-		6,404,266
14	Breckinridge County Schools						-		8,593,512		8,593,512		-		8,593,512
15	Bullitt County Schools						-		43,123,003		43,123,003		-		43,123,003
16	Butler County Schools						-		6,679,658		6,679,658		-		6,679,658
17	Caldwell County Schools						-		5,787,031		5,787,031		-		5,787,031
18	Calloway County Schools						-		10,138,942		10,138,942		-		10,138,942
19	Campbell County Schools						-		15,425,514		15,425,514		-		15,425,514
20	Carlisle County Schools						-		2,582,975		2,582,975		-		2,582,975
21	Carroll County Schools						-		6,881,630		6,881,630		-		6,881,630
22	Carter County Schools						-		13,764,005		13,764,005		-		13,764,005
23	Casey County Schools						-		6,540,844		6,540,844		-		6,540,844
24	Christian County Schools						-		26,624,183		26,624,183		-		26,624,183
25	Clark County Schools						-		17,032,516		17,032,516		-		17,032,516
26	Clay County Schools						-		10,607,077		10,607,077		-		10,607,077
27	Clinton County Schools						-		5,417,502		5,417,502		-		5,417,502
28	Crittenden County Schools						-		3,863,660		3,863,660		-		3,863,660
29	Cumberland County Schools						-		3,013,163		3,013,163		-		3,013,163
30	Daviess County Schools						-		37,938,210		37,938,210		-		37,938,210
31	Edmonson County Schools						-		5,826,180		5,826,180		-		5,826,180
32	Elliott County Schools						-		3,484,855		3,484,855		-		3,484,855
33	Estill County Schools						-		7,621,408		7,621,408		-		7,621,408
34	Fayette County Schools						-		172,964,111		172,964,111		-		172,964,111
35	Fleming County Schools						-		6,602,320		6,602,320		-		6,602,320
36	Floyd County Schools						-		18,602,893		18,602,893		-		18,602,893
37	Franklin County Schools						-		19,926,164		19,926,164		-		19,926,164
38	Fulton County Schools						-		1,906,980		1,906,980		-		1,906,980
39	Gallatin County Schools						-		5,436,104		5,436,104		-		5,436,104
40	Garrard County Schools						-		8,381,398		8,381,398		-		8,381,398



## SCHEDULE B (continued)

Code	Employer	Deferred Inflows of Resources				Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of				
		Differences Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	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	Total Pension Expense
41	Grant County Schools					-	11,458,176	11,458,176	-	11,458,176
42	Graves County Schools					-	13,534,371	13,534,371	-	13,534,371
43	Grayson County Schools					-	12,782,649	12,782,649	-	12,782,649
44	Green County Schools					-	5,319,160	5,319,160	-	5,319,160
45	Greenup County Schools					-	8,955,302	8,955,302	-	8,955,302
46	Hancock County Schools					-	5,872,131	5,872,131	-	5,872,131
47	Hardin County Schools					-	48,130,601	48,130,601	-	48,130,601
48	Harlan County Schools					-	10,915,298	10,915,298	-	10,915,298
49	Harrison County Schools					-	8,850,735	8,850,735	-	8,850,735
50	Hart County Schools					-	8,522,495	8,522,495	-	8,522,495
51	Henderson County Schools					-	24,588,051	24,588,051	-	24,588,051
52	Henry County Schools					-	6,951,782	6,951,782	-	6,951,782
53	Hickman County Schools					-	2,854,402	2,854,402	-	2,854,402
54	Hopkins County Schools					-	22,800,874	22,800,874	-	22,800,874
55	Jackson County Schools					-	7,181,079	7,181,079	-	7,181,079
56	Jefferson County Schools					-	441,774,618	441,774,618	-	441,774,618
57	Jessamine County Schools					-	26,724,424	26,724,424	-	26,724,424
58	Johnson County Schools					-	12,107,783	12,107,783	-	12,107,783
59	Kenton County Schools					-	46,782,216	46,782,216	-	46,782,216
60	Knott County Schools					-	7,659,716	7,659,716	-	7,659,716
61	Knox County Schools					-	14,523,874	14,523,874	-	14,523,874
62	Larue County Schools					-	8,287,550	8,287,550	-	8,287,550
63	Laurel County Schools					-	27,854,447	27,854,447	-	27,854,447
64	Lawrence County Schools					-	8,035,253	8,035,253	-	8,035,253
65	Lee County Schools					-	2,701,121	2,701,121	-	2,701,121
66	Leslie County Schools					-	5,637,283	5,637,283	-	5,637,283
67	Letcher County Schools					-	10,501,573	10,501,573	-	10,501,573
68	Lewis County Schools					-	7,170,072	7,170,072	-	7,170,072
69	Lincoln County Schools					-	11,817,082	11,817,082	-	11,817,082
70	Livingston County Schools					-	4,479,477	4,479,477	-	4,479,477
71	Logan County Schools					-	11,670,770	11,670,770	-	11,670,770
72	Lyon County Schools					-	2,744,740	2,744,740	-	2,744,740
73	Madison County Schools					-	34,238,357	34,238,357	-	34,238,357
74	Magoffin County Schools					-	6,695,039	6,695,039	-	6,695,039
75	Marion County Schools					-	11,071,464	11,071,464	-	11,071,464
76	Marshall County Schools					-	15,765,626	15,765,626	-	15,765,626
77	Martin County Schools					-	5,933,799	5,933,799	-	5,933,799
78	Mason County Schools					-	8,992,384	8,992,384	-	8,992,384
79	McCracken County Schools					-	22,829,136	22,829,136	-	22,829,136
80	McCreary County Schools					-	9,011,106	9,011,106	-	9,011,106



## SCHEDULE B (continued)

Code	Employer	Deferred Inflows of Resources				Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of				
		Differences Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	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	Total Pension Expense
81	McLean County Schools					-	5,124,518	5,124,518	-	5,124,518
82	Meade County Schools					-	14,028,774	14,028,774	-	14,028,774
83	Menifee County Schools					-	2,904,462	2,904,462	-	2,904,462
84	Mercer County Schools					-	9,579,458	9,579,458	-	9,579,458
85	Metcalfe County Schools					-	4,795,413	4,795,413	-	4,795,413
86	Monroe County Schools					-	6,080,015	6,080,015	-	6,080,015
87	Montgomery County Schools					-	15,343,057	15,343,057	-	15,343,057
88	Morgan County Schools					-	5,681,407	5,681,407	-	5,681,407
89	Muhlenberg County Schools					-	14,326,036	14,326,036	-	14,326,036
90	Nelson County Schools					-	14,885,929	14,885,929	-	14,885,929
91	Nicholas County Schools					-	3,394,708	3,394,708	-	3,394,708
92	Ohio County Schools					-	12,229,509	12,229,509	-	12,229,509
93	Oldham County Schools					-	41,267,765	41,267,765	-	41,267,765
94	Owen County Schools					-	5,431,610	5,431,610	-	5,431,610
95	Owsley County Schools					-	2,346,661	2,346,661	-	2,346,661
96	Pendleton County Schools					-	7,409,006	7,409,006	-	7,409,006
97	Perry County Schools					-	12,322,925	12,322,925	-	12,322,925
98	Pike County Schools					-	28,811,987	28,811,987	-	28,811,987
99	Powell County Schools					-	7,341,858	7,341,858	-	7,341,858
100	Pulaski County Schools					-	24,707,205	24,707,205	-	24,707,205
101	Robertson County Schools					-	1,130,744	1,130,744	-	1,130,744
102	Rockcastle County Schools					-	9,493,541	9,493,541	-	9,493,541
103	Rowan County Schools					-	9,266,671	9,266,671	-	9,266,671
104	Russell County Schools					-	9,447,133	9,447,133	-	9,447,133
105	Scott County Schools					-	27,644,689	27,644,689	-	27,644,689
106	Shelby County Schools					-	25,537,131	25,537,131	-	25,537,131
107	Simpson County Schools					-	9,689,312	9,689,312	-	9,689,312
108	Spencer County Schools					-	8,859,243	8,859,243	-	8,859,243
109	Taylor County Schools					-	8,250,035	8,250,035	-	8,250,035
110	Todd County Schools					-	5,847,546	5,847,546	-	5,847,546
111	Trigg County Schools					-	7,164,376	7,164,376	-	7,164,376
112	Trimble County Schools					-	4,481,833	4,481,833	-	4,481,833
113	Union County Schools					-	7,574,448	7,574,448	-	7,574,448
114	Warren County Schools					-	44,535,075	44,535,075	-	44,535,075
115	Washington County Schools					-	6,041,298	6,041,298	-	6,041,298
116	Wayne County Schools					-	10,105,945	10,105,945	-	10,105,945
117	Webster County Schools					-	6,484,680	6,484,680	-	6,484,680
118	Whitley County Schools					-	14,221,037	14,221,037	-	14,221,037
119	Wolfe County Schools					-	4,728,025	4,728,025	-	4,728,025
120	Woodford County Schools					-	12,614,443	12,614,443	-	12,614,443



## SCHEDULE B (continued)

Code	Employer	Deferred Inflows of Resources				Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of				
		Differences Between Expected and Actual Experience	Change of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	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	Total Pension Expense
122	Anchorage City Schools					-	2,579,899	2,579,899	-	2,579,899
124	Ashland City Schools					-	10,578,190	10,578,190	-	10,578,190
125	Augusta City Schools					-	1,050,378	1,050,378	-	1,050,378
126	Barbourville City Schools					-	1,964,611	1,964,611	-	1,964,611
127	Bardstown City Schools					-	9,678,666	9,678,666	-	9,678,666
128	Beechwood Independent Schools					-	4,860,638	4,860,638	-	4,860,638
129	Bellevue City Schools					-	2,847,553	2,847,553	-	2,847,553
131	Berea City Schools					-	3,744,482	3,744,482	-	3,744,482
134	Bowling Green City Schools					-	14,263,935	14,263,935	-	14,263,935
136	Burgin City Schools					-	1,573,597	1,573,597	-	1,573,597
140	Campbellsville City Schools					-	4,120,379	4,120,379	-	4,120,379
144	Caverna City Schools					-	2,622,894	2,622,894	-	2,622,894
147	Cloverport City Schools					-	1,380,517	1,380,517	-	1,380,517
150	Corbin City Schools					-	8,978,301	8,978,301	-	8,978,301
151	Covington City Schools					-	16,191,512	16,191,512	-	16,191,512
154	Danville City Schools					-	8,009,971	8,009,971	-	8,009,971
155	Dawson Springs City Schools					-	2,129,548	2,129,548	-	2,129,548
156	Dayton City Schools					-	3,317,370	3,317,370	-	3,317,370
158	East Bernstadt City Schools					-	1,613,491	1,613,491	-	1,613,491
160	Elizabethtown City Schools					-	8,546,888	8,546,888	-	8,546,888
161	Eminence Independent Schools					-	2,570,791	2,570,791	-	2,570,791
162	Erlanger-Elsmere City Schools					-	8,459,024	8,459,024	-	8,459,024
163	Fairview Independent Schools					-	2,709,532	2,709,532	-	2,709,532
166	Fort Thomas Independent Schools					-	11,111,911	11,111,911	-	11,111,911
167	Frankfort City Schools					-	3,039,984	3,039,984	-	3,039,984
170	Fulton City Schools					-	1,354,850	1,354,850	-	1,354,850
173	Glasgow City Schools					-	7,533,136	7,533,136	-	7,533,136
180	Harlan City Schools					-	2,310,876	2,310,876	-	2,310,876
182	Hazard Independent Schools					-	3,316,986	3,316,986	-	3,316,986
190	Jackson City Schools					-	866,936	866,936	-	866,936
191	Jenkins City Schools					-	1,811,258	1,811,258	-	1,811,258
206	Ludlow City Schools					-	3,303,143	3,303,143	-	3,303,143
210	Mayfield City Schools					-	5,675,014	5,675,014	-	5,675,014
214	Middlesboro City Schools					-	3,882,021	3,882,021	-	3,882,021
221	Murray City Schools					-	5,441,848	5,441,848	-	5,441,848
222	Newport City Schools					-	7,410,256	7,410,256	-	7,410,256
224	Owensboro City Schools					-	17,337,036	17,337,036	-	17,337,036
226	Paducah City Schools					-	10,212,819	10,212,819	-	10,212,819
227	Paintsville City Schools					-	3,127,367	3,127,367	-	3,127,367
228	Paris City Schools					-	2,441,302	2,441,302	-	2,441,302



## SCHEDULE B (continued)

Code	Employer	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	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	Total Pension Expense
230	Pikeville City Schools	-				-	5,077,678	5,077,678	5,077,678
231	Pineville City Schools	-				-	1,559,009	1,559,009	1,559,009
235	Raceland City Schools	-				-	3,512,853	3,512,853	3,512,853
238	Russell City Schools	-				-	7,788,100	7,788,100	7,788,100
239	Russellville City Schools	-				-	3,238,447	3,238,447	3,238,447
240	Science Hill City Schools	-				-	1,405,127	1,405,127	1,405,127
245	Silver Grove City Schools	-				-	969,460	969,460	969,460
246	Somerset City Schools	-				-	5,436,969	5,436,969	5,436,969
247	Southgate City Schools	-				-	752,804	752,804	752,804
258	Walton-Verona Independent Schools	-				-	5,901,932	5,901,932	5,901,932
259	West Point City Schools	-				-	522,762	522,762	522,762
260	Williamsburg City Schools	-				-	2,561,250	2,561,250	2,561,250
261	Williamstown City Schools	-				-	2,600,015	2,600,015	2,600,015
870	Ohio Valley Educational Cooperative	-				-	1,838,535	1,838,535	1,838,535
871	West Kentucky Educational Cooperative	-				-	843,648	843,648	843,648
872	Southeast South-Central Educational Cooperative	-				-	130,835	130,835	130,835
890	Green River Regional Educational Cooperative	-				-	899,621	899,621	899,621
891	Central KY Special Education Cooperative	-				-	309,350	309,350	309,350
892	KY Valley Educational Cooperative	-				-	512,284	512,284	512,284
894	KY Educational Development Corporation	-				-	1,330,265	1,330,265	1,330,265
895	Northern KY Cooperative for Educational Services	-				-	1,094,695	1,094,695	1,094,695
Total - Local School Districts						\$ 0	\$ 2,344,938,895	\$ 2,344,938,895	\$ 2,344,938,895
Total Non University						\$ 50,054,597	\$ 2,353,227,432	\$ 2,403,282,029	\$ 2,398,655,863
State's Proportionate Share of Outflow s/Inflow s		\$ 209,653,341	\$ 159,533,559	\$ 12,371,499	\$ 381,558,399			\$ 1,279,575	



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

		NPL Sensitivity		Recognition of Existing Deferred Outflows (Inflows) of Resources for					
		Less 1%- 3.20%	Plus 1%- 5.20%	Future Plan Years Ending June 30,					
		Employer's Proportionate Share of Net Pension Liability	Employer's Proportionate Share of Net Pension Liability						
Code	Employer			2018	2019	2020	2021	2022	Thereafter
University Employers									
263	Eastern Kentucky University	\$ 428,884,971	\$ 284,529,511	\$ 14,640,282	\$ 14,640,283	\$ 18,643,938	\$ 13,648,241	\$ 4,364,622	\$ -
266	Kentucky State University	84,557,944	56,097,164	(812,472)	(812,472)	(23,121)	548,842	(15,873)	-
269	Morehead State University	236,354,790	156,801,747	7,663,372	7,663,372	9,869,752	7,541,904	2,468,698	-
270	Murray State University	264,863,574	175,714,955	7,645,895	7,645,895	10,118,406	7,166,833	2,081,220	-
273	Western Kentucky University	458,099,292	303,910,784	12,195,350	12,195,350	16,471,723	13,017,213	4,116,763	-
500	KCTCS Central Office - University	123,674,702	82,047,880	2,158,484	2,158,484	3,312,992	2,688,386	736,964	-
	Total University	\$ 1,596,435,273	\$ 1,059,102,041	\$ 43,490,911	\$ 43,490,912	\$ 58,393,690	\$ 44,611,419	\$ 13,752,394	\$ -
	State's Proportionate Share of NPL - University	\$ 150,460,767	\$ 99,818,206	\$ 436,929	\$ 436,929	\$ 1,841,486	\$ 2,352,696	\$ 596,489	\$ -
Non-University Employers									
400	KCTCS CENTRAL OFFICE	\$ 185,100,528	\$ 122,798,807	\$ (161,168)	\$ (161,168)	\$ 1,482,261	\$ 2,108,231	\$ 399,606	\$ -
801	KY High School Athletic Association	5,974,662	3,963,691	164,114	164,114	217,161	163,487	51,386	-
805	KY School Boards Association	15,607,443	10,354,241	571,464	571,464	710,036	547,374	191,570	-
806	KY Education Association	1,951,021	1,294,340	74,662	74,662	91,984	78,428	29,797	-
807	KY Academic Association	1,140,357	756,532	32,306	32,306	42,431	32,895	10,742	-
809	Jefferson County Teachers' Association	513,179	340,452	16,137	16,137	20,693	16,454	5,669	-
		\$ 210,287,190	\$ 139,508,063	\$ 697,515	\$ 697,515	\$ 2,564,566	\$ 2,946,869	\$ 688,770	\$ -
State Agencies									
301	Technical Education District - Madisonville	\$ 46,197,685	\$ 30,648,322	\$ 2,587,924	\$ 2,587,924	\$ 2,998,093	\$ 1,673,541	\$ 488,321	\$ -
302	Technical Education District - Bowling Green	47,093,034	31,242,311	1,534,154	1,534,154	1,952,273	1,451,660	476,825	-
303	Technical Education District - Elizabethtown	35,816,487	23,761,261	792,797	792,797	1,110,797	589,374	87,724	-
304	Technical Education District - Frankfort	47,566,765	31,556,593	74,983	74,983	497,308	936,602	334,915	-
305	Technical Education District - Hazard	48,051,715	31,878,317	734,028	734,028	1,160,659	1,221,849	428,353	-
308	Adult Council on Post Secondary Education	4,751,791	3,152,418	3,644	3,644	45,833	44,119	3,036	-
316	Office of Career and Technical Education	17,465,093	11,586,637	2,413,129	2,413,129	2,568,194	1,140,206	322,466	-
317	Office of Secretary of Workforce Investment	725,254	481,146	(44,803)	(44,803)	(38,363)	8,143	7,012	-
318	Department for Vocational Rehabilitation	91,535,125	60,725,943	2,442,815	2,442,815	3,255,517	2,289,969	661,930	-
320	School for the Blind	27,210,788	18,052,095	689,988	689,988	931,581	744,104	240,898	-
330	School for the Deaf	33,996,837	22,554,074	397,021	397,021	698,864	617,896	164,241	-
345	Department of Education	134,632,022	89,317,150	3,644,442	3,644,442	4,839,782	3,685,494	1,165,497	-
728	Department of Corrections	597,502	396,393	(7,028)	(7,028)	(1,723)	19,366	9,951	-
896	Education Professional Standards Board	7,830,502	5,194,887	(22,717)	(22,717)	46,807	(107,045)	(103,754)	-
		\$ 543,470,600	\$ 360,547,547	\$ 15,240,377	\$ 15,240,377	\$ 20,065,622	\$ 14,315,278	\$ 4,287,415	\$ -
	State's Proportionate Share of NPL - Non-University	\$ 35,436,575,821	\$ 23,509,221,091	\$ 971,408,715	\$ 971,408,715	\$ 1,286,035,009	\$ 1,028,599,889	\$ 341,838,461	\$ -



## **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

INVESTMENT RATE OF RETURN: 7.50% per annum, compounded annually.

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

<u>Age</u>	<u>Annual Rate</u>
20	8.10%
25	7.20
30	6.20
35	5.50
40	5.00
45	4.60
50	4.50
55	4.30
60	4.20
65	4.00

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	0.012%	0.01%	9.00%				
25	0.015	0.01	9.00	3.00%			
30	0.020	0.02	9.00	3.00	3.00%		
35	0.035	0.05	10.00	3.25	1.75		
40	0.046	0.09	10.00	4.00	1.40		
45	0.058	0.18	11.00	4.00	1.50		17.0%
50	0.074	0.33	9.00	4.00	2.00		17.0
55	0.124	0.55	12.00	3.50	2.50	5.5%	35.0
60	0.244	0.70	12.00	3.50	2.50	13.0	24.0
62	0.324	0.70	12.00	3.50	2.50	15.0	25.0
65	0.480	0.70	12.00	3.50	2.50	21.0	26.0
70	0.821	0.70	0.00	0.00	0.00	100.0	100.0

\*Plus 10% 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%	7.00%				
25	0.008	0.02	8.50	4.00%			
30	0.010	0.04	9.00	4.00	1.65%		
35	0.017	0.08	9.00	3.75	1.85		
40	0.024	0.14	8.50	3.25	1.50		
45	0.037	0.32	7.50	3.25	1.25		15.0%
50	0.055	0.42	9.50	3.50	1.75		15.0
55	0.103	0.56	11.00	4.00	2.00	6.0%	35.0
60	0.201	0.85	11.00	4.00	2.00	14.0	30.0
62	0.263	0.85	11.00	4.00	2.00	12.0	25.0
65	0.390	0.85	11.00	4.00	2.00	22.0	30.0
70	0.672	0.85	0.00	0.00	0.00	100.0	100.0

\*Plus 10% in year when first eligible for unreduced retirement with 27 years of service.

**DEATHS AFTER RETIREMENT:** The RP-2000 Combined Mortality Table projected to 2020 using scale AA (set back one year for females) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table (set back seven years for males and set forward five years for females) is used for death after disability retirement. Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 4% greater for healthy lives and 5% greater for disabled lives than expected under the selected tables. 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	0.1161%	0.0745%	2.2571%	1.1535%
50	0.1487	0.1100	2.2571	1.6544
55	0.2469	0.2064	2.6404	2.1839
60	0.4887	0.4017	3.2859	2.8026
65	0.9607	0.7797	3.9334	3.7635
70	1.6413	1.3443	4.6584	5.2230
75	2.8538	2.1680	5.6909	7.2312
80	5.2647	3.6066	7.3292	10.0203
85	9.6240	6.1634	9.7640	14.0049
90	16.9280	11.2205	12.8343	19.4509
95	25.6992	17.5624	16.2186	23.7467



**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**

### **FUNDING POLICY OF THE TRS BOARD OF TRUSTEES**

#### **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 State....” (KRS 161.714.) To satisfy this solemn commitment, the State 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 \$487 million (Fiscal Year 2016). The following schedule details the growth of the annual retirement appropriations payable by the state:



## SCHEDULE F (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

(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 F (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.