



## TEACHERS' RETIREMENT SYSTEM of the State of Kentucky

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### BOARD OF TRUSTEES

**RON SANDERS**  
Chair, Hodgenville  
**ALISON WRIGHT**  
Vice Chair, Georgetown  
**MARY ADAMS**  
Brodhead  
**JOHN BOARDMAN**  
Lexington  
**FRANK COLLECCHIA**  
Louisville  
**HOLLIS GRITTON**  
Union  
**BRENDA MCGOWN**  
Bowling Green  
**LAURA SCHNEIDER**  
Walton  
**JOSH UNDERWOOD**  
Tollesboro  
**ALLISON BALL**  
State Treasurer  
**WAYNE LEWIS, Ph.D.**  
Education Commissioner  
**GARY L. HARBIN, CPA**  
Executive Secretary

Regular Quarterly Meeting  
TRS Board of Trustees  
A G E N D A  
June 18, 2018, 12:30 p.m.

- Board Called to Order
- Roll Call
- 1. [Reports for Consent](#)
  - 1.1. Consideration/Approval of Minutes
    - 1.1.1. [Quarterly Board Meeting held March 19, 2018](#)
  - 1.2. [Applications for Retirement and Annuity](#)
  - 1.3. [Survivor Benefits](#)
  - 1.4. [Life Insurance Benefits](#)
  - 1.5. [Refunds](#)
  - 1.6. [Interim Financial Statements](#)
- 2. [Standard Annual Board Actions](#)
  - 2.1. [Report of Results of Trustee Election](#)
  - 2.2. [Election of 2018-2019 Board Chair and Vice Chair](#)
  - 2.3. [2018-2019 Committee Appointments](#)
  - 2.4. [Board Appointment of Investment Committee](#)
  - 2.5. [Resolution Regarding Purchases or Sales of Investment Instruments](#)
  - 2.6. [Transfer of Interest](#)
  - 2.7. [Transfer of Reserve Funds](#)
  - 2.8. [2018-2019 Administrative Expense Fund Budget](#)
  - 2.9. [IRC Section 415\(b\) Limit](#)
  - 2.10. [Personnel Matters](#)
- 3. [Report of the Investment Committee](#)
- 4. [Report of the Governance and Audit Committee](#)
- 5. [Report of the Insurance Committee](#)
- 6. [Executive Secretary's Observations and Comments](#)
- General Discussion
- Adjournment

The meeting will take place in the boardroom at the offices of the Teachers' Retirement System of the State of Kentucky, 479 Versailles Road, Frankfort, Kentucky.  
Portions of the meeting may enter "closed session."

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Reports for Consent

1.1. Consideration/Approval of Minutes

1.1.1. Regular Quarterly Meeting of the Board of Trustees held March 19, 2018

1.2. Applications for Retirement and Annuity

The lists of members who retired in March, April and May 2018 will be available for examination at the meeting. Attached is a summary of the particular payments and a comparison to the same period last year. Initial retirements for the period included 175 retirees with monthly payments totaling \$386,648.90. During the same period last year, there were 162 retirements with monthly payments totaling \$366,469.70.

Recommendation: The board is requested to approve the initial payments listed in the report.

1.3. Survivor Benefits

The list of persons qualifying for survivor benefit payments for the quarter January 1 through March 31, 2018 will be available for examination at the meeting. During the period, there were 26 survivor benefits with a total monthly payment of \$6,655.78.

Recommendation: The board is requested to approve the survivor benefit payments for the period January 1 through March 31, 2018 as listed in the report.

1.4. Life Insurance Benefits

The list of payments of life insurance benefits due to death of active and retired teachers for the period January 1 through March 31, 2018 will be available for examination at the meeting. There were 11 payments to the estates or beneficiaries of active teachers and 319 payments to the estates or beneficiaries of retired teachers for total payments of \$1,617,000. During the same quarter in 2017, there were 274 payments in the amount of \$1,349,000.

Recommendation: The board is requested to approve the payment of life insurance benefits as listed in the report.

### 1.5. Refunds

The report of refunds for the quarter ended March 31, 2018 is attached. There were 709 refunds for the quarter January 1 through March 31, 2018, and the amount refunded was \$7,466,822.03. The refunds are for the following categories:

Regular withdrawals	683	\$7,072,804.45
Deaths	<u>26</u>	<u>\$ 394,017.58</u>
Totals	709	\$7,466,822.03

During the same quarter in 2017 there were 723 refunds totaling \$5,630,874.61.

Recommendation: The board is requested to approve the payment of refunds as listed in the report.

### 1.6. Interim Financial Statements

Attached are the Interim Financial Statements for the quarter ended March 31, 2018.

Recommendation: The Interim Financial Statements are provided for informational purposes only and require no action by the board.

***Teachers' Retirement System of Kentucky***  
**Initial Applications for Retirement and Annuity**  
**2018**

	<b>March</b>	<b>April</b>	<b>May</b>	<b>Total</b>	<b>Same Period 2017</b>
<b>Handicapped Child</b>	<i>0</i> \$0.00	<i>0</i> \$0.00	<i>0</i> \$0.00	<i>0</i> \$0.00	<i>0</i> \$0.00
<b>Disability Retirement</b>	<i>7</i> \$16,883.71	<i>7</i> \$15,926.61	<i>4</i> \$12,487.23	<i>18</i> \$45,297.55	<i>30</i> \$87,211.14
<b>Service Retirement</b>	<i>55</i> \$129,111.80	<i>45</i> \$86,898.50	<i>53</i> \$115,094.03	<i>153</i> \$331,104.33	<i>127</i> \$262,639.92
<b>Beneficiary of Member Eligible to Retire</b>	<i>2</i> \$7,165.67	<i>0</i> \$0.00	<i>2</i> \$3,081.35	<i>4</i> \$10,247.02	<i>5</i> \$16,618.64
<b>TOTALS</b>	<i>64</i> \$153,161.18	<i>52</i> \$102,825.11	<i>59</i> \$130,662.61	<i>175</i> \$386,648.90	<i>162</i> \$366,469.70

**Reports for Consent**  
**Member Account Refunds**  
**For the period January 2018 - March 2018**

Active Refunds	Count	Net Refund	Taxes Withheld	Rollovers	Total
January	261	1,020,286.64	255,071.64	1,436,368.66	2,711,726.94
February	212	768,860.65	191,470.00	1,203,378.29	2,163,708.94
March	212	926,314.28	231,485.68	1,039,568.61	2,197,368.57
<b>Total</b>	<b>683</b>				<b>7,072,804.45</b>

Deceased Refunds	Count	Net Refund	Taxes Withheld	Rollovers	Total
January	6	3,555.97	305.66	0.00	3,861.63
February	14	153,065.19	34,510.83	90,743.05	278,319.07
March	6	89,469.50	22,367.38	0.00	111,836.88
<b>Total</b>	<b>26</b>				<b>394,017.58</b>

Total Refunds	Count	Net Refund	Taxes Withheld	Rollovers	Total
January	267	1,023,842.61	255,377.30	1,436,368.66	2,715,588.57
February	226	921,925.84	225,980.83	1,294,121.34	2,442,028.01
March	218	1,015,783.78	253,853.06	1,039,568.61	2,309,205.45
<b>Total</b>	<b>709</b>				<b>7,466,822.03</b>

# **TEACHERS' RETIREMENT SYSTEM**

## **OF THE STATE OF KENTUCKY**



### ***INTERIM FINANCIAL STATEMENTS***

**QUARTER ENDED MARCH 31, 2018**  
**(UNAUDITED)**

**Statements of Plan Net Assets**  
**as of March 31, 2018 and 2017**  
 ( Book Basis - Unadjusted )

	Defined Benefit Plan		Health Insurance Plans		Life Insurance Plan		Other Funds		TOTAL	
	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017
<b>ASSETS</b>										
Cash	\$ 83,205,164	\$ 122,625,631	\$ 40,200,059	\$ 57,701,211	\$ -	\$ 118,886	\$ 63,711	\$ 64,596	\$ 123,468,934	\$ 180,510,324
Receivables										
Contributions	28,779,827	34,664,070	18,456,779	21,525,458	105,264	95,285			47,341,870	56,284,813
State of Kentucky	13,640,427	16,272,123	5,580,025	1,359,808	32,617	54,392			19,253,069	17,686,323
Investment Income	40,623,372	39,619,872	1,685,597	1,333,953	1,036,228	1,090,402	2,693	2,417	43,347,890	42,046,644
Investment Sales Receivable	15,967,717	20,508,794	1,342,821	701,154	-	-			17,310,538	21,209,948
Installment Account Receivable	307,905	434,851							307,905	434,851
Other Receivables	55,579	81,004	18,200,377	33,476,310					18,255,956	33,557,314
<b>Total Receivables</b>	<b>99,374,827</b>	<b>111,580,714</b>	<b>45,265,599</b>	<b>58,396,683</b>	<b>1,174,109</b>	<b>1,240,079</b>	<b>2,693</b>	<b>2,417</b>	<b>145,817,228</b>	<b>171,219,893</b>
Investments at Book Value										
Short Term Investments	454,947,705	628,266,035	73,095,112	36,484,934	14,134,322	3,471,023	384,373	394,082	542,561,512	668,616,074
Bonds and Mortgages	3,016,131,812	2,589,618,708	92,282,015	61,430,597	51,558,017	79,326,765	199,485	199,485	3,160,171,329	2,730,575,555
Stocks	8,256,237,017	8,098,259,701	380,970,443	312,948,789	18,682,002		185,574	185,574	8,656,075,036	8,411,394,064
Alternative Investments	964,773,275	857,338,999	59,791,484	31,013,353					1,024,564,759	888,352,352
Real Estate	942,471,077	867,385,981	50,823,277	31,710,915					993,294,354	899,096,896
Additional Categories	1,373,207,859	1,356,957,337	173,092,661	157,793,455					1,546,300,520	1,514,750,792
<b>Total Investments</b>	<b>15,007,768,745</b>	<b>14,397,826,761</b>	<b>830,054,992</b>	<b>631,382,043</b>	<b>84,374,341</b>	<b>82,797,788</b>	<b>769,432</b>	<b>779,141</b>	<b>15,922,967,510</b>	<b>15,112,785,733</b>
Capital Assets	18,046,639	16,973,670							18,046,639	16,973,670
( net of accumulated depreciation )										
<b>Total Assets</b>	<b>15,208,395,375</b>	<b>14,649,006,776</b>	<b>915,520,650</b>	<b>747,479,937</b>	<b>85,548,450</b>	<b>84,156,753</b>	<b>835,836</b>	<b>846,154</b>	<b>16,210,300,311</b>	<b>15,481,489,620</b>
<b>LIABILITIES</b>										
Liabilities										
Accounts Payable	2,201,644	1,166,764	-	19,811					2,201,644	1,186,575
Contributions Not Posted	24,409,004	24,060,508	-	-					24,409,004	24,060,508
Investment Purchases Payable	18,604,978	32,972,510	3,601,921	3,337,543			-	-	22,206,899	36,310,053
Investment Fees Payable	15,983,153	11,447,198	796,350	709,100			-	-	16,779,503	12,156,298
Revenues Collected in Advance	-	-	3,422,483	2,040,004					3,422,483	2,040,004
<b>Total Liabilities</b>	<b>61,198,779</b>	<b>69,646,980</b>	<b>7,820,754</b>	<b>6,106,458</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>69,019,533</b>	<b>75,753,438</b>
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS	\$ 15,147,196,596	\$ 14,579,359,796	\$ 907,699,896	\$ 741,373,479	\$ 85,548,450	\$ 84,156,753	\$ 835,836	\$ 846,154	\$ 16,141,280,778	\$ 15,405,736,182

**Statements of Changes in Plan Net Assets**  
**For the Nine Months Ended March 31, 2018 and 2017**  
 ( Book Basis - Unadjusted )

	Defined Benefit Plan		Medical Insurance Plan		Life Insurance Plan		Other Funds		TOTAL	
	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017
<b>ADDITIONS</b>										
Contributions										
Employer- State Paid	\$ 703,012,069	\$ 714,446,977	\$ 55,829,494	\$ 50,313,809	\$ 615,787	\$ 608,064	\$ -	\$ -	\$ 759,457,350	\$ 765,368,850
Employer- LSD, Other	56,039,300	57,095,577	72,195,385	72,882,342	113,769	121,273	162,975	220,001	128,511,429	130,319,193
Member- Active	217,120,556	218,137,491	88,649,079	89,325,626					305,769,635	307,463,117
Member- Retired			43,682,418	43,540,353					43,682,418	43,540,353
Recovery Income			61,019,327	19,123,594					61,019,327	19,123,594
Total Contribution	976,171,925	989,680,045	321,375,703	275,185,724	729,556	729,337	162,975	220,001	1,298,440,159	1,265,815,107
Investment Income (at book value)										
Net Gain/(Loss) on Investment Sales	695,066,197	564,313,531	1,745,531	11,934,875	2,126,422	(16,648)	-	-	698,938,150	576,231,758
Interest	111,101,385	115,214,781	2,733,390	2,410,245	2,280,007	2,311,058	7,644	5,614	116,122,426	119,941,698
Dividends	210,836,159	134,341,548	4,130,767	2,568,387	752		4,261	3,888	214,971,939	136,913,823
Rental Income, Net	22,380,038	22,848,942							22,380,038	22,848,942
Securities Lending, Net	3,009,319	1,393,511			1,655	1,940	210	50	3,011,184	1,395,501
Gross Investment Income	1,042,393,098	838,112,313	8,609,688	16,913,507	4,408,836	2,296,350	12,115	9,552	1,055,423,737	857,331,722
Less Investment Expense	(40,984,557)	(36,196,782)	(2,476,204)	(2,128,029)	-	-	-	-	(43,460,761)	(38,324,811)
Net Investment Income	1,001,408,541	801,915,531	6,133,484	14,785,478	4,408,836	2,296,350	12,115	9,552	1,011,962,976	819,006,911
Total Additions	1,977,580,466	1,791,595,576	327,509,187	289,971,202	5,138,392	3,025,687	175,090	229,553	2,310,403,135	2,084,822,018
<b>DEDUCTIONS</b>										
Benefits	1,502,290,289	1,437,961,991			4,051,106	3,898,120	147,744	181,287	1,506,489,139	1,442,041,398
Refunds of Contributions	26,314,863	22,374,917							26,314,863	22,374,917
Under 65 Insurance Expenses			88,162,176	91,802,676					88,162,176	91,802,676
Over 65 Insurance Expenses			144,223,208	120,749,444					144,223,208	120,749,444
Administrative Expense	10,679,944	11,309,171	-	-	-	-	-	-	10,679,944	11,309,171
Total Deductions	1,539,285,096	1,471,646,079	232,385,384	212,552,120	4,051,106	3,898,120	147,744	181,287	1,775,869,330	1,688,277,606
Net Increase ( Decrease )	438,295,370	319,949,497	95,123,803	77,419,082	1,087,286	(872,433)	27,346	48,266	534,533,805	396,544,412
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>										
Beginning of year	14,708,901,226	14,259,410,299	812,576,093	663,954,397	84,461,164	85,029,186	808,490	797,888	15,606,746,973	15,009,191,770
Ending of period	\$ 15,147,196,596	\$ 14,579,359,796	\$ 907,699,896	\$ 741,373,479	\$ 85,548,450	\$ 84,156,753	\$ 835,836	\$ 846,154	\$ 16,141,280,778	\$ 15,405,736,182



TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Report of Results of Trustee Election

In accordance with KRS 161.260, the results of the election of one active teacher trustee and one lay trustee, as certified by the Department of Education, will be announced at the meeting of the board.

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Election of 2018-2019 Board Chair and Vice Chair

KRS 161.340 provides that the Board of Trustees shall elect from its membership a chair and a vice chair on an annual basis. Additionally, 102 KAR 2:010, Section 1 provides that the election will be conducted at the last meeting of the fiscal year (the fourth quarter meeting) for the succeeding fiscal year.

KRS 161.340 was amended by HB 300 (2012 Regular Session of the General Assembly) to limit a trustee to no more than four consecutive years serving as chair or vice chair of the board. The amendment was effective on April 11, 2012 and expressly includes years of service as chair or vice chair served prior to the effective date of the law.

Recommendation: The Executive Secretary recommends that the board take action and elect a chair and vice chair consistent with KRS 161.340 and 102 KAR 2:010.

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: 2018-2019 Committee Appointments

The chair of the board identifies standing committees that are to report and make recommendations to the full board. The chair also appoints members of the board to the committees for terms that correspond to the term of the chair. The chair will make committee appointments for the coming year and will notify those appointed. If you have any particular interest in serving on a committee, please notify the chair. The following committees are currently in effect, with membership as follows:

**Administrative Appeals**

Hollis Gritton, Chair  
Alison Wright, Vice Chair  
Mary Adams  
Laura Schneider, Alternate

**Governance & Audit**

Hollis Gritton, Chair  
Ron Sanders, Vice Chair  
Frank Collecchia  
John Boardman, Alternate

**Insurance**

Charles Harman, Chair  
Josh Underwood, Vice Chair  
Brenda McGown  
Laura Schneider, Alternate

**Investments**

Ron Sanders, Chair  
Hollis Gritton, Vice Chair  
Mary Adams  
John Boardman  
Frank Collecchia  
Josh Underwood  
Alison Wright  
Brenda McGown, Alternate  
Laura Schneider, Alternate

**Legislative**

Ron Sanders, Chair  
Alison Wright, Vice Chair  
Josh Underwood  
Hollis Gritton, Alternate

**Nominating**

Alison Wright, Chair  
Ron Sanders, Vice Chair  
Laura Schneider  
Hollis Gritton, Alternate

**Personnel**

Alison Wright, Chair  
Mary Adams, Vice Chair  
Hollis Gritton  
Brenda McGown  
Ron Sanders  
Charles Harman, Alternate

**Scholarship**

Josh Underwood, Chair  
Alison Wright, Vice Chair  
Charles Harman  
Laura Schneider  
Brenda McGown, Alternate

TO: Board of Trustees of the  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Board Appointment of Investment Committee and Appointment of Non-voting  
Members

KRS 161.430 provides that the board may appoint an Investment Committee to "... act for the board in all matters of investment, subject to approval of the board of trustees..." At its meeting on December 15, 2008, the board adopted certain recommendations concerning the TRS investment program, which were promoted by a coalition of constituency groups (including KEA, KEA-R, KRTA, 3KTS, KASA, KASS, KSBA and JCTA) and endorsed by the governor and members of the Governor's Public Pension Working Group. The board delegated authority to the Investment Committee to implement the recommendations adopted by the board.

Senate Bill 2 (RS 2017) provides for two trustees with investment experience appointed by the governor. On June 2, 2017, the governor appointed two trustees to the TRS board.

1. The chair will review at the meeting his recommendations for seven members and two alternates to serve on the Investment Committee. The board will be asked to consider the recommendations and appoint the Investment Committee for fiscal year 2018-2019.

Chair's Recommendations for the Investment Committee for fiscal year 2018-2019:

Ron Sanders, Chair  
John Boardman  
Frank Collecchia  
Brenda McGown  
Josh Underwood  
Alison Wright  
Lay Trustee elected  
Laura Schneider, Alternate  
Active Teacher Trustee elected, Alternate

2. In 2009, the Investment Committee appointed two highly respected, nationally recognized, investment experts to serve as non-voting members of the Investment Committee. This action was taken consistent with the direction of the board on December 15, 2008, to implement the recommendations concerning the TRS investment program. In June 2009, the board ratified the action of the Investment Committee, and both investment experts served on the Investment Committee during the current fiscal year. The chair recommends that the board ratify the appointment of Bevis Longstreth and George Philip to serve on the Investment Committee for fiscal year 2018-2019.

Recommendation: The board should ratify the appointment of Bevis Longstreth and George Philip to serve on the Investment Committee for fiscal year 2018-2019.

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Resolution Regarding Purchases or Sales of Investment Instruments

The laws and regulations governing the administration of TRS specifically authorize the board to delegate authority to the executive secretary and chief investment officer to execute purchases and sales of investment instruments on behalf of the board.

KRS 161.430 reads in pertinent part as follows:

“No investment or disbursement of funds shall be made unless authorized by the board of trustees, except that the board, in order to ensure timely market transactions, shall establish investment guidelines, by administrative regulation, and may permit its staff...to execute purchases and sales of investment instruments within those guidelines without prior board approval.”

102 KAR 1:175, Section 1.1(c) reads as follows:

“To ensure a timely market transaction, the executive secretary and the chief investment officer may make a purchase or sale of an investment instrument without prior board approval if the action conforms to the provisions established in this administrative regulation.”

The statute and regulation cover the pension and life insurance funds, and in accordance with KRS 161.677(3), the insurance trust fund is to be managed in the same general manner. From time to time, TRS staff must present proof that they are authorized to execute purchases and sales of investment instruments on behalf of the board. Historically, the board has adopted a resolution for this purpose which is copied into the minutes of the board meeting. Staff then presents a copy of the resolution to interested parties when necessary to execute purchases or sales of investment instruments on behalf of the board.

Recommendation: The executive secretary recommends that the board adopt the following resolution to confirm the authority granted to the executive secretary and the chief investment officer to execute purchases or sales of investment instruments on behalf of the board.

“BE IT RESOLVED, by the Board of Trustees of the Teachers’ Retirement System of the State of Kentucky, that the Executive Secretary or Chief Investment Officer, be and hereby are authorized and empowered to execute purchases or sales of all investment instruments in the name of, or belonging to, the Teachers’ Retirement System of the State of Kentucky, or in its nominee name

“KENTRES”, in any capacity and includes all investment instruments of the retirement system provided for in KRS 161.220 to 161.716 and KRS 161.990 whether designated pension, life insurance, medical insurance fund or the Kentucky Teachers’ Retirement System insurance trust fund.”

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Transfer of Interest

KRS 161.440 requires that a transfer of interest be made from the Guarantee Fund to other funds, except the Expense Fund and Medical Insurance Fund. The Executive Secretary requests authority from the board to make the required transfer of funds as of July 1, 2018.

Recommendation: The Executive Secretary recommends that the board issue a directive as follows:

“In accordance with KRS 161.440, the Executive Secretary is authorized and directed to credit the required interest on average monthly balances to (1) Teachers’ Savings Fund, (2) State Accumulation Fund and (3) Allowance Reserve Fund, such credits to be transferred from the Guarantee Fund and credited on July 1, 2018.”

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Transfer of Reserve Funds

KRS 161.420 requires TRS to transfer an amount equal to the accounts of members retiring on July 1, along with an equal amount from the State Accumulation Fund, to the Allowance Reserve Fund each year. In addition, sufficient sums must be transferred during the year at the time of retirement of individual teachers.

Recommendation: The Executive Secretary recommends that the board issue a directive authorizing the transfer of reserve funds and requests that the authorization cover the transfer of accounts of teachers who will retire during the 2018-2019 fiscal year as follows:

“The Executive Secretary is directed to determine the aggregate amount of the accumulated accounts of teachers retiring during 2018-2019 and to transfer from the Teachers’ Savings Fund to the Allowance Reserve Fund a sum equal to that amount; and further, to transfer a matching amount from the State Accumulation fund to the Allowance Reserve Fund, both of which transfers are authorized by KRS 161.420(2), and (3).”



TO: Board of Trustees of the  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: 2018-2019 Administrative Expense Fund Budget

Administrative Expense Fund Budget. The state budget makes no appropriations to TRS for administrative expenses; however, the biennial budget adopted by the legislature does set amounts that the retirement system may expend for administration during a two-year period. The allowable budget of \$13,949,200 was approved by the legislature for the 2018-2019 fiscal year. The amount approved was \$1,676,000 less than the proposed budget recommended to the legislature by the board.

A copy of the proposed 2018-2019 administrative budget is attached. Also attached are additional materials comparing TRS's administrative expenses with those of other retirement systems and a schedule of actual administrative expenses during the current fiscal year through April 30, 2018.

Recommendation: The executive secretary recommends that the board approve the proposed 2018-2019 Administrative Expense Fund Budget as presented.

## Teachers' Retirement System Kentucky Administrative Budget

	Budget 2017-18	Proposed Budget 2018-19
<b>PERSONNEL COSTS</b>		
Salaries & Wages	\$ 7,397,100	\$ 7,397,100
FICA/Medicare	246,200	246,200
Retirement	1,584,900	2,019,100
Health/Life Insurance	802,200	802,200
<b>SUB TOTAL PERSONNEL</b>	10,030,400	10,464,600
Worker's Compensation	5,900	5,900
Unemployment Compensation	4,600	4,600
Employee Training	49,500	49,500
Legal Services	152,300	152,300
Auditing	122,800	122,800
Medical Review	120,100	120,100
Consulting Services	120,000	120,000
Actuarial	383,100	383,100
Investigative Services	24,000	24,000
Janitorial Services	40,200	40,200
Other	17,700	17,700
<b>TOTAL PERSONNEL COSTS</b>	11,070,600	11,504,800
<b>OPERATING EXPENSES</b>		
Natural Gas	14,700	14,700
Electricity	80,200	80,200
Water & Sewage	12,800	12,800
Meeting Room Rentals	8,800	8,800
Copy Machine Rental	17,500	17,500
Motorpool Rental	5,700	5,700
Maintenance-Building & Grounds	152,100	152,100
Equipment Maintenance	13,800	13,800
Computer Maintenance	20,600	20,600
Postage & Delivery Services	484,900	484,900
Printing	238,900	238,900
Insurance	209,500	209,500
Other	10,500	10,500
Telephone	28,200	28,200
Computer Services	133,000	133,000
Office Supplies	62,700	62,700
Furniture under \$5000	14,100	14,100
Computer Software	522,700	522,700

## Teachers' Retirement System Kentucky Administrative Budget

Storage	6,900	6,900
Travel-In State	28,600	28,600
Travel-Out-of-State	30,000	30,000
Subscriptions & Dues	69,000	69,000
Other	10,100	10,100
Computers (PC) Under \$5,000	<u>143,200</u>	<u>143,200</u>
<b>TOTAL OPERATING EXPENSES</b>	2,318,500	2,318,500
<b>CAPITAL OUTLAY</b>		
Furniture/Office Equipment	34,900	34,900
Computers over \$5,000	<u>91,000</u>	<u>91,000</u>
<b>TOTAL CAPITAL OUTLAY</b>	<u>125,900</u>	<u>125,900</u>
<b>TOTAL EXPENDITURES</b>	<u>\$ 13,515,000</u>	<u>\$ 13,949,200</u>

**TEACHERS RETIREMENT SYSTEM KENTUCKY  
ADMINISTRATIVE EXPENSES ANALYSIS**

Our actual expenses vs. Budget	Assets End of Year	Actual Expenses	Basis Points	Budgeted Expenses	Percent Expended	Amount returned to Pension Fund at year end
<i><b>Through Current Year 4/30/18</b></i>		10,911,009		11,262,500.00	96.88%	
Fiscal Year 6/30/17	19,754,828,599	11,881,187	0.0601%	12,934,000.00	91.86%	799,722.32
Fiscal Year 6/30/16	17,638,549,089	10,960,754	0.0621%	12,196,600.00	89.87%	785,982.95
Fiscal Year 6/30/15	18,766,823,240	10,440,118	0.0556%	12,196,600.00	85.60%	2,020,284.36
Fiscal Year 6/30/14	18,720,359,574	9,078,009	0.0485%	12,030,300.00	75.46%	3,814,011.56
Fiscal Year 6/30/13	16,613,402,131	9,677,241	0.0582%	12,030,300.00	80.44%	5,179,859.68
Fiscal Year 6/30/12	15,229,062,321	8,987,875	0.0590%	12,030,300.00	74.71%	3,208,685.47
Fiscal Year 6/30/11	15,514,921,656	8,530,724	0.0550%	11,428,700.00	74.64%	3,104,778.23
Fiscal Year 6/30/10	12,786,733,551	8,830,054	0.0691%	10,851,000.00	81.38%	2,187,712.93
Fiscal Year 6/30/09	11,830,163,585	8,165,757	0.0690%	10,102,600.00	80.83%	2,118,883.81
Fiscal Year 6/30/08	14,340,732,528	7,551,936	0.0527%	9,453,500.00	79.89%	2,044,217.34
Fiscal Year 6/30/07	15,633,802,824	7,351,846	0.0470%	9,075,400.00	81.01%	1,877,948.70
Fiscal Year 6/30/06	13,983,541,499	6,839,859	0.0489%	8,613,500.00	79.41%	1,902,090.55
Fiscal Year 6/30/05	13,667,841,114	6,652,673	0.0487%	8,147,900.00	81.65%	1,751,527.21

Our expenses compared to similar size systems	Assets End of Year	Actual Expenses	Basis Points
Kentucky Retirement System 6/30/17	11,921,906,000	33,109,000	0.2777%
New Mexico Public Employees 6/30/17	14,798,917,911	11,485,612	0.0776%
Indiana Public Employees 6/30/17	14,644,671,000	24,483,000	0.1672%
Georgia Employees 6/30/17	17,146,450,000	16,487,000	0.0962%
Kansas Public Employees 6/30/17	18,633,840,421	11,116,172	0.0597%
Louisiana Teachers 6/30/17	19,513,345,675	14,368,885	0.0736%
<b>Kentucky Teachers 6/30/17</b>	<b>19,754,828,599</b>	<b>11,881,187</b>	<b>0.0601%</b>
Ohio Teachers Retirement System 6/30/17	75,847,005,000	66,149,000	0.0872%

Teachers' Retirement System of the State of Kentucky  
Administrative Expense Fund - Actual versus Budgeted Expenses  
For the Period Ending April 30, 2018

	Actual	Budget	Variance
Regular Salaries & Wages	\$ 6,244,279.39	\$ 6,164,250.00	\$ (80,029.39)
Employers FICA	157,994.13	163,500.00	5,505.87
Employers Retirement Credit	1,464,594.37	1,349,833.30	(114,761.07)
Employer Health Insurance	686,929.67	665,500.00	(21,429.67)
Employer Life Insurance	1,024.00	3,000.00	1,976.00
Worker's Compensation	13,973.67	13,750.00	(223.67)
Unemployment Compensation	-	3,833.30	3,833.30
Employee Training	34,562.00	49,583.30	15,021.30
Legal Services	107,838.43	184,750.00	76,911.57
Auditing Service	69,704.00	94,000.00	24,296.00
Medical & Dental Services	76,000.00	100,083.30	24,083.30
Consulting Services	342,567.20	183,333.30	(159,233.90)
Misc. Services	24,649.02	38,083.30	13,434.28
Actuarial Services	222,454.50	319,250.00	96,795.50
Janitorial Services	29,250.00	33,500.00	4,250.00
Natural Gas	13,865.97	20,583.30	6,717.33
Electricity	68,678.65	66,833.30	(1,845.35)
Water & Sewage	7,700.90	18,166.70	10,465.80
Meeting Room Rentals	7,509.95	7,333.30	(176.65)
Copy Machine Rental	14,704.87	18,916.70	4,211.83
Maintenance-Buildings & Grounds	34,906.01	81,000.00	46,093.99
Computer Maintenance	12,877.42	29,666.70	16,789.28
Postage & Delivery	384,638.13	387,416.70	2,778.57
Printing	155,676.96	199,083.40	43,406.44
Insurance Premium	190,420.17	174,583.30	(15,836.87)
Service Not Otherwise Classified	4,869.62	8,416.70	3,547.08
Telephone Paid to Vendor	16,023.11	36,000.00	19,976.89
Dept Tech Serv Computer Charges	70,644.66	97,500.00	26,855.34
Computer Equip Under \$5000	44,823.00	36,000.00	(8,823.00)
MARS Charges	20,700.00	17,083.30	(3,616.70)
Office Supplies	33,887.21	48,750.00	14,862.79
Building Material & Supplies	1,474.18	5,333.30	3,859.12
Furn/Fixtures/Equip Under \$5000	11,737.83	11,750.00	12.17
Computer Software	246,569.37	435,583.30	189,013.93
Banking Service & Fees	-	-	-
Storage	8,478.72	5,750.00	(2,728.72)
In-State Travel	18,124.52	27,000.00	8,875.48
Out-of-State Travel	10,249.85	37,500.00	27,250.15
Travel Non-State Employees	6,779.80	1,000.00	(5,779.80)
Dues & Subscriptions	47,026.41	36,666.70	(10,359.71)
Other	2,821.11	8,416.70	5,595.59
Furniture/Fixture/Equip Over \$5000	-	29,083.30	29,083.30
Computer Equip Over \$5000	-	50,833.30	50,833.30
	<u>\$ 10,911,008.80</u>	<u>\$ 11,262,499.80</u>	<u>\$ 351,491.00</u>

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: IRC Section 415(b) Limit

KRS 161.611 authorizes a supplemental retirement benefit plan for the sole purpose of enabling TRS to apply the same formula for determining benefits payable to all members of the retirement system whose benefits under the retirement system are limited by Section 415 of the Internal Revenue Code. This plan requires annual transfers from employer contributions to fund the limited benefit.

Recommendation: The Executive Secretary requests authorization to make necessary transfers from employer contributions sufficient to provide the benefits authorized in KRS 161.611 for fiscal year 2018-2019.

TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Personnel Matters: Employee annual salary increments

KRS 161.340(2) provides that the board shall employ all personnel required to transact the business of the retirement system. The law also provides that "...the power over and the control for determining and maintaining an adequate complement of employees in the system shall be under the exclusive jurisdiction of the Board of Trustees...."

The personnel system established by the board for employees of the retirement plan is in many respects very different than the personnel system for other state employees. The board has established a different system because it is the board's duty to attract and retain qualified employees in order to satisfy the mission of the retirement plan. The board's personnel system has helped TRS maintain high employee job satisfaction and very low levels of employee turnover. TRS has also departed from many of the standards established in the state's personnel system. For example, TRS transitioned to a 40-hour work week (compared to the state's 37.5-hour work week) because the 40-hour week was a better fit for TRS's strategic objectives.

Although the TRS personnel system is separate and distinct from the state system, the board remains mindful of the state system. The TRS Employee Compensation Plan provides that all employees eligible for annual salary increments shall receive increments equal to the percent funding available for state employees that is provided in the budget approved by the General Assembly. In the 2018 Regular Session of the General Assembly a budget was passed that provides for no state employee annual increments.

The Executive Secretary requests authorization from the Board of Trustees to approve normal salary advancements that will maintain salary increments for TRS employees equal to that received by state employees, as provided by the System's Employee Compensation Plan, during fiscal year 2018-2019.

All eligible TRS employees are included in this authorization except for the Executive Secretary. Personnel Committee members will conduct the performance evaluation of the Executive Secretary at a meeting to be scheduled by the chair of the Personnel Committee. The committee will report its recommendations to the board at a meeting most closely following the evaluation. If the board chooses to provide an increment for the Executive Secretary, the board must determine the increase and authorize the chair to implement the increment.

Recommendation: The Executive Secretary recommends that the Board of Trustees approve normal salary advancements that will maintain salary increments for TRS employees equal to that received by state employees, as provided by the System's Employee Compensation Plan, during fiscal year 2018-2019.

TO: Board of Trustees of the  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Report of the Investment Committee

1. Investment Committee Meeting and Actions: The investments approved at the May 24, 2018, Investment Committee meeting are as follows: up to \$35 million from the TRS pension fund, up to \$5 million from the TRS medical insurance fund and up to \$500 thousand from the life insurance account trust into Fort Washington Private Equity Fund X. Up to \$35 million from the TRS pension fund, up to \$5 million from the TRS medical insurance fund and up to \$500 thousand from the life insurance account trust into Fort Washington Private Equity Fund X-S. Up to \$50 million from the TRS pension fund, \$10 million from the TRS medical insurance fund and \$500 thousand from the life insurance account trust to TA Realty Fund XII. Additionally, outside managers Galliard Capital Management and UBS Global Asset Management reported to the committee on their respective portfolios.

2. Purchases and Disposals: During this quarter ended March 31, 2018, there were 2,806 purchases amounting to \$3,838,638,065.99 and 3,661 disposals amounting to \$3,632,459,883.53. The disposals consisted of 3,288 sales, 319 principal payments and 54 redemptions. While the TRS investment office initiates each of these transactions, the custodian of securities is responsible for handling and securing each stock, bond or other type of investment. At the end of the quarter, the system's invested securities had a book value of \$15,027,578,866.30 and a market value of \$19,701,298,041.72.

3. Staff's comments on economic and market conditions: The first quarter ending March 31, 2018, was characterized by higher levels of volatility as investors reacted to the prospect of higher future inflation, rising interest rates and a potential trade war between the United States and China. The quarter began with a substantial global equity market rally in January. Drivers of the rally included improving global economic fundamentals, continuation of generally accommodative monetary policies among global central banks and continued corporate earnings growth. At their peak, US and developed international equity markets traded up 7% with emerging market equity indices up nearly 10%. However, the market rally reversed sharply in February in response to a dramatic spike in equity market volatility as overcrowded short volatility positions were reversed. The correction resulted in a drawdown in broad US equity indices of just over 10%. The quarter ended with developed equity and US fixed income markets in negative territory.

The Federal Open Market Committee set the federal funds target range at 1.50% to 1.75%, an increase of 0.25%, and maintained guidance for two additional rate increases in 2018. US economic data continued to generally indicate a robust economic expansion. The University of Michigan Consumer Sentiment survey maintained its highest six-month average reading since



2001, and the NFIB small business optimism index reached its highest level since the 1980s. In Europe, the EU increased its final GDP growth estimate for 2017 from 2.2% to 2.4%, while also raising its forecasts for 2018 and 2019. The European Central Bank maintained guidance that it would continue to reduce the pace of asset purchases and likely end its quantitative easing program by 2019. Collectively, global central banks continued to pivot away from the use of extraordinary measures to stimulate economic activity.

Despite strong returns in January, US equity markets faltered during the final two months of the quarter, delivering mixed results across market cap and style. The S&P 1500 Index's return of -0.7% marks the first negative quarter for the index since Q3 2015. Declines were relatively widespread, with nine of eleven sectors producing negative returns. Small cap stocks outperformed large cap stocks, and growth continued to outperform value. Increased global macroeconomic uncertainty indirectly favored small cap stocks, which tend to be more domestically-focused providing greater insulation from global headwinds. Active managers with a high quality bias benefitted from the market's increased sensitivity to rising interest rates, which punished companies with higher debt levels.

Developed international markets lagged during the quarter, ending with negative returns and underperforming their domestic counterparts. Growth stocks continued to outperform value stocks, while small cap stocks outperformed large cap stocks, ending the quarter in slightly positive territory. Market movements were affected by headlines related to global trade negotiations, however there also were significant political events within developed international markets.

Emerging markets were a bright spot for the quarter, outpacing developed markets and ending Q1 in positive territory. Contrary to the rest of the world, value outperformed growth and small cap stocks underperformed large cap stocks. During the quarter, key economic data in emerging markets surprised to the upside, which factored into the decision by the International Money Fund to raise its forecast for global growth.

Treasury yields increased across all maturities leading to negative returns across rate-sensitive fixed income indices. The Bloomberg Barclays US Government/Credit Bond Index posted a loss of 1.6% for the quarter. Longer duration bonds were hit hardest with the Bloomberg Barclays US Long Government/Credit Index returning -3.6%. Investment grade credit spreads widened, ending a nine-quarter streak of spread tightening. High yield bond spreads widened modestly and returned -0.9%, as measured by the B of A Merrill High Yield Master II Index.

The Core private real estate index, NCREIF-ODCE, returned 2.2% during the quarter, comprised of 1.0% income and 1.2% appreciation. This represented a 0.14% uptick over last quarter's appreciation component of total return. Investors in publicly traded real estate significantly underperformed their private market counterparts during the quarter as measured by FTSE/NAREIT All REIT's Index return of -6.7%.

4. Performance: Investment performance was positive for the quarter ended March 31, 2018. The Retirement Annuity Trust Fund's total assets returned .39% for the quarter, despite weak markets which led to a decline of .54% for the policy index. The system's domestic stocks declined .14% outperforming the S&P 1500 stock index which declined .72% for the quarter.

The system's international stocks gained 1.34%, outperforming the MSCI All Country ex US index which declined 1.08% for the quarter. Alternatives and additional categories were positive contributors as private equity gained 3.88% while additional categories returned 1.01%. The system's bonds returned -1.33%, outperforming the Bloomberg Barclays Gov/Credit Bond index which returned -1.58% for the quarter. Real estate provided strong returns for the quarter gaining 2.8%.

Recommendation: The executive secretary recommends that the board accept and ratify the Report of the Investment Committee.

TOTAL BV INVESTED AT 12/31/17 \$ 14,821,400,683.84

January Activity

Purchases	1,309,451,115.38	
Disposals	(986,879,529.91)	
Paydowns	(3,475,665.18)	
Redemptions	(47,296,708.35)	
Short-Term Pool Net	<u>52,673,808.75</u>	324,473,020.69

February Activity

Purchases	605,026,605.97	
Disposals	(512,467,930.33)	
Paydowns	(3,093,785.76)	
Redemptions	(27,015,858.92)	
Short-Term Pool Net	<u>(257,764,637.04)</u>	(195,315,606.08)

March Activity

Purchases	443,312,617.14	
Disposals	(436,454,919.42)	
Paydowns	(2,747,731.77)	
Redemptions	(4,193,497.95)	
Short-Term Pool Net	<u>77,104,299.85</u>	77,020,767.85

TOTAL BV INVESTED AT 3/31/18

\$ 15,027,578,866.30

\* TRS recognizes investment transactions on the date they occur. Transaction settlements, generally, occur days following transactions. The interim period between transaction date and settlement date represents a "pending period". At the time this statement was produced, (\$2,637,256.11) in net transactions had occurred but had not settled. The statement does not include either expected cash receipts or disbursements associated with these pending trades. Upon settlement of these pending transactions, the net effect would be as follows:

Total Short Term	474,757,806
- Pending Payable	<u>(2,637,256)</u>
Net	<u><u>472,120,550</u></u>

## INVESTMENT ACTIVITY

### January 1, 2018 -- March 31, 2018

**Total Book Value Invested @ 1/1/18** \$ 14,821,400,683.84

**Purchases:**

354	Cash Equivalents	\$ 1,479,745,998.25	
147	Fixed Income Securities	1,108,894,906.98	
2057	Equity Securities	959,369,316.37	
23	Real Estate	34,306,596.07	
55	Alternative Investments	75,514,351.68	
170	Additional Categories	180,806,896.64	
2806	Total Purchases		\$ 3,838,638,065.99

**Disposals:**

322	Cash Equivalents	\$ 1,607,006,229.94	
124	Fixed Income Securities	828,465,430.76	
319	Principal Paydowns	9,317,182.71	
40	Redemptions / Maturities	71,793,403.18	
2536	Equity Securities	842,008,966.54	
29	Real Estate	20,768,504.12	
117	Alternative Investments	80,318,479.61	
160	Additional Categories	166,069,024.63	
0	Additional Principal Paydowns	-	
14	Additional Redemptions / Maturities	6,712,662.04	
3661	Total Disposals		\$ 3,632,459,883.53

**Total Book Value Invested @ 3/31/18** \$ 15,027,578,866.30

**Total Par Value Invested @ 3/31/18** \$ 15,015,617,148.50

**Total Market Value Invested @ 3/31/18** \$ 19,701,298,041.72

\* TRS recognizes investment transactions on the date they occur. Transaction settlements, generally, occur days following transactions. The interim period between transaction date and settlement date represents a "pending period". At the time this statement was produced, (\$2,637,256.11) in net transactions had occurred but had not settled. The statement does not include either expected cash receipts or disbursements associated with these pending trades. Upon settlement of these pending transactions, the net effect would be as follows:

Total Short Term	474,757,806
- Pending Payable	(2,637,256)
Net	<u>472,120,550</u>

**Teachers' Retirement System of the State of Kentucky**  
**Retirement Annuity Trust**  
**Quarterly Investment Performance**  
**Gross Returns**  
**For the Period Ended March 31, 2018**

	Market Value	Last Qtr	FYTD	1-Year	3-Year*	5-Year*	10-Year*	20-Year*
<b>TOTAL PLAN</b>	\$ 19,701,298,041.72	0.39	9.28	13.19	7.87	9.36	7.75	6.32
<b>Policy Benchmark</b>		-0.54	7.87	11.33	7.71	8.78	-	-
<b>Total Equity</b>	\$ 12,503,256,386.71	0.39	12.26	17.39	9.59	12.00	8.68	6.38
<b>Domestic Equity</b>	\$ 7,927,889,776.53	-0.14	11.05	14.59	9.92	13.46	9.95	6.93
<i>S&amp;P 1500 Index</i>		-0.72	10.46	13.73	10.63	13.21	9.68	-
<b>All-Cap Equities</b>	\$ 253,914,679.74	0.53	9.12	11.77	-	-	-	-
<i>Russell 3000</i>		-0.64	10.48	13.81	-	-	-	-
<b>Large-Cap Equities</b>	\$ 6,536,394,586.15	-0.34	11.10	14.61	9.87	13.46	9.74	-
<i>S&amp;P 500 Index</i>		-0.76	10.58	13.99	10.78	13.31	9.49	6.45
<b>Mid-Cap Equities</b>	\$ 692,778,523.85	1.33	12.07	16.59	10.63	13.71	10.88	-
<i>S&amp;P 400 Index</i>		-0.77	8.83	10.97	8.96	11.97	10.90	-
<b>Small-Cap Equities</b>	\$ 444,801,986.79	0.36	9.86	12.79	10.05	13.69	11.85	-
<i>S&amp;P 600 Index</i>		0.57	10.78	12.68	10.76	13.56	11.35	-
<b>International Equity</b>	\$ 4,575,366,610.18	1.34	14.60	23.14	8.58	8.38	4.77	-
<i>MSCI AC World Ex US</i>		-1.08	10.43	17.05	6.68	6.37	3.17	-
<b>Fixed Income</b>	\$ 3,113,225,093.31	-1.33	0.17	1.73	1.86	2.26	4.63	5.43
<i>Barclay's Govt./Credit Index</i>		-1.58	-0.30	1.38	1.22	1.84	3.65	4.89
<b>Real Estate</b>								
<b>Inhouse Triple Net Lease</b>	\$ 420,940,001.06	4.11	13.25	15.47	11.24	9.63	9.00	9.09
<i>CPI plus 2%</i>		1.13	3.75	4.40	3.91	3.47	3.60	4.17
<b>Core Real Estate:</b>	\$ 382,043,182.61	1.82	5.68	7.31	10.38	11.82	-	-
<i>NCREIF ODCE (VW)</i>		2.20	6.26	8.07	9.99	11.43	-	-
<b>Non-Core Real Estate:</b>	\$ 315,832,319.96	2.25	11.57	15.46	15.86	16.96	-	-
<i>NCREIF Property Index</i>		1.70	5.28	7.12	8.72	10.00	-	-
<b>Alternative Investments</b>								
<b>Private Equity</b>	\$ 1,072,701,984.93	3.88	17.21	22.78	12.25	13.53	9.14	-
<b>Mature Private Equity</b>	\$ 424,803,301.48	2.89	15.68	20.42	9.82	10.62	-	-
<i>S&amp;P 500 plus 3%</i>		-0.02	13.06	17.41	14.10	16.71	-	-
<b>Private Equity &lt; 5 Years</b>	\$ 647,898,683.45	4.48	19.14	25.20	14.16	15.04	11.37	-
<b>Timberland:</b>	\$ 186,996,245.26	-8.96	-7.12	-5.90	0.74	3.12	3.08	-
<i>NCREIF Timberland Index</i>		0.92	3.07	3.79	3.44	6.10	4.06	-
<b>Additional Categories:</b>	\$ 1,421,730,865.46	1.01	3.40	4.70	4.17	4.87	-	-
<i>B of A Merrill Lynch High Yield Master II</i>		-0.91	1.52	3.69	5.18	5.01	-	-
<b>Cash (Unallocated)</b>	\$ 284,571,962.42	0.39	0.94	1.15	0.59	0.39	0.42	2.20
<i>90 Day T-Bill</i>		0.35	0.91	1.11	0.49	0.31	0.32	1.90

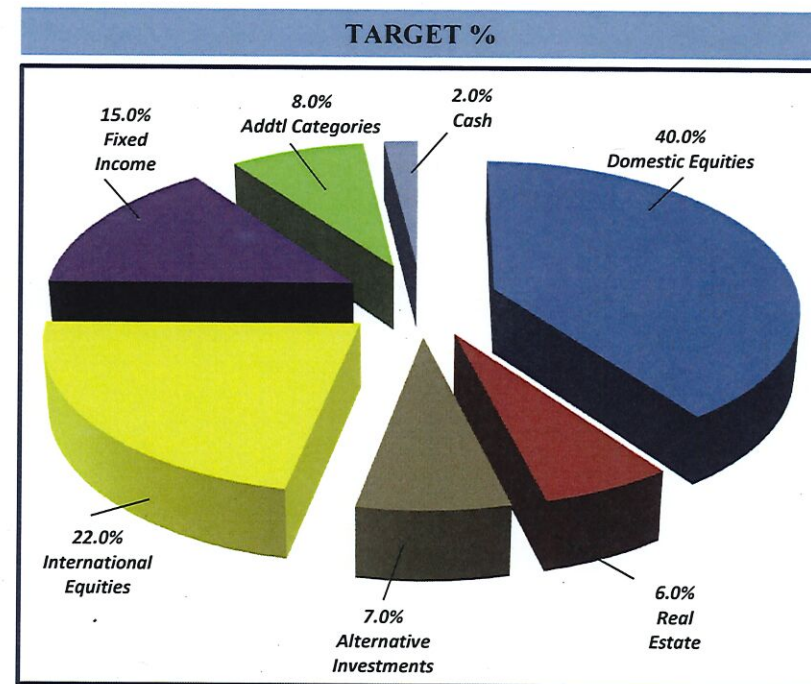
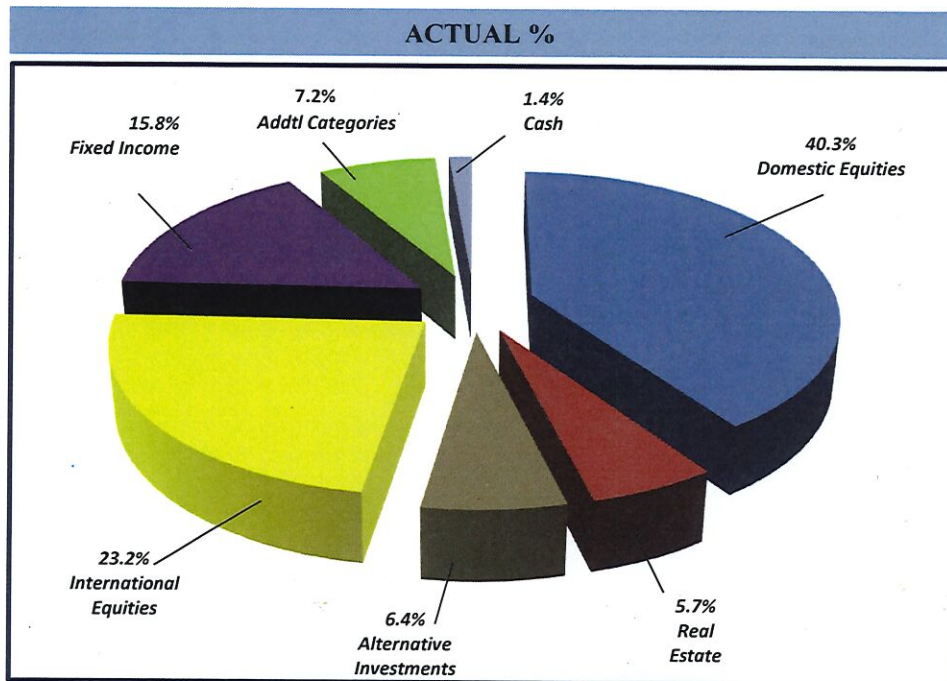
**Total Plan Gross Return for 30-year period\* 8.43**

\*Returns are annualized for periods longer than one year

\*\* Prior to July 1, 2008, TRS did not benchmark overall fund performance. Effective July 1, 2008, the Board of Trustees approved a Policy Index that represents the returns of appropriate benchmarks for the various asset classes weighted by the mid-point of the strategic range for the current fiscal year.

**Teachers' Retirement System of Kentucky**  
**Quarterly Investment Update**  
*For the period ended March 31, 2018*

(\$ in millions)	\$'s	Actual %	Target %	Strategic Ranges
Domestic Equities	\$7,927.9	40.3%	40.0%	34.0 - 48.0%
Real Estate	1,118.8	5.7%	6.0%	4.0 - 8.0%
Alternative Inv.	1,259.7	6.4%	7.0%	4.0 - 10.0%
International Equities	4,575.4	23.2%	22.0%	18.0 - 25.0%
Fixed Income	3,113.2	15.8%	15.0%	12.0 - 19.0%
Addtl Categories	1,421.7	7.2%	8.0%	5.0 - 11.0%
Cash	\$284.6	1.4%	2.0%	1.0 - 3.0%
<b>Total</b>	<b><u>\$19,701.3</u></b>	<b><u>100.0%</u></b>	<b><u>100.0%</u></b>	





**Teachers' Retirement System of the State of Kentucky**  
**Health Insurance Trust**  
**Quarterly Investment Performance**  
**Gross Returns**  
**For the Period Ended March 31, 2018**

FINAL

	<u>Market Value</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1-Year</u>	<u>3-Year*</u>	<u>5-Year*</u>	<u>10-Year*</u>	<u>20-Year*</u>
<b><u>TOTAL PLAN</u></b>	\$ 1,016,321,238.25	0.04	7.84	11.26	7.02	7.25	-	-
<i>Policy Benchmark</i>		-0.26	7.81	11.44	-	-	-	-
<b><u>Total Equity</u></b>	\$ 563,305,109.45	-0.82	10.43	15.03	8.48	9.66	-	-
<b><u>All Cap Equities</u></b>	\$ 34,596,011.02	0.51	9.08	11.71	-	-	-	-
<i>Russell 3000</i>		-0.64	10.49	13.81	-	-	-	-
<b><u>Global Equities</u></b>	\$ 528,709,098.43	-0.90	10.53	15.29	8.67	9.77	-	-
<i>MSCI AC World IMI (Net)</i>		-0.89	10.35	15.03	8.27	9.34	-	-
<b><u>Fixed Income</u></b>	\$ 91,743,650.67	-1.45	-0.64	0.34	1.42	1.18	-	-
<i>Barclays Government Credit</i>		-1.58	-0.30	1.38	1.22	1.84	-	-
<b><u>Core Real Estate</u></b>	\$ 22,241,658.45	1.63	5.17	6.95	-	-	-	-
<i>NCREIF ODCE (VW)</i>		2.20	6.25	8.07	-	-	-	-
<b><u>Non-Core Real Estate</u></b>	\$ 34,886,397.20	1.28	10.33	13.81	18.05	-	-	-
<i>NCREIF Property Index</i>		1.70	5.39	7.12	8.72	-	-	-
<b><u>Private Equity</u></b>	\$ 77,850,715.51	5.90	17.53	22.13	17.80	15.87	-	-
<b><u>Mature Private Equity</u></b>	\$ 8,761,844.00	5.10	13.12	18.29	15.66	9.17	-	-
<i>S&amp;P 500 plus 3%</i>		-0.02	13.06	17.41	14.10	16.71	-	-
<b><u>Private Equity &lt; 5 Years</u></b>	\$ 69,088,871.51	5.77	18.12	22.92	18.05	16.02	-	-
<b><u>Additional Categories:</u></b>	\$ 178,594,960.22	0.61	6.79	4.37	4.09	4.25	-	-
<i>B of A Merrill Lynch High Yield Master II</i>		-0.91	1.52	3.69	5.18	5.01	-	-
<b><u>Cash (Unallocated)</u></b>	\$ 47,698,746.75	0.38	0.92	1.12	0.58	0.37	-	-
<i>90 Day T-Bill</i>		0.35	0.90	1.11	0.49	0.31	-	-

\*Returns are annualized for periods longer than one year

\*\* Prior to July 1, 2015, TRS did not benchmark overall fund performance. Effective July 1, 2015, the Board of Trustees approved a Policy Index that represents the returns of appropriate benchmarks for the various asset classes weighted by the mid point of the strategic range for the current fiscal year.

# Teachers' Retirement System of Kentucky

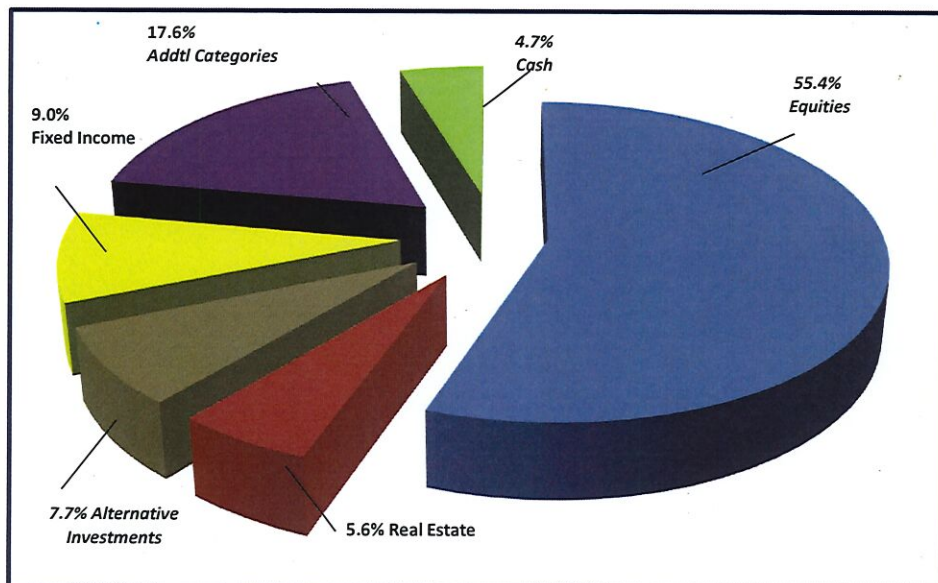
## Insurance Trust Fund

### Quarterly Investment Update

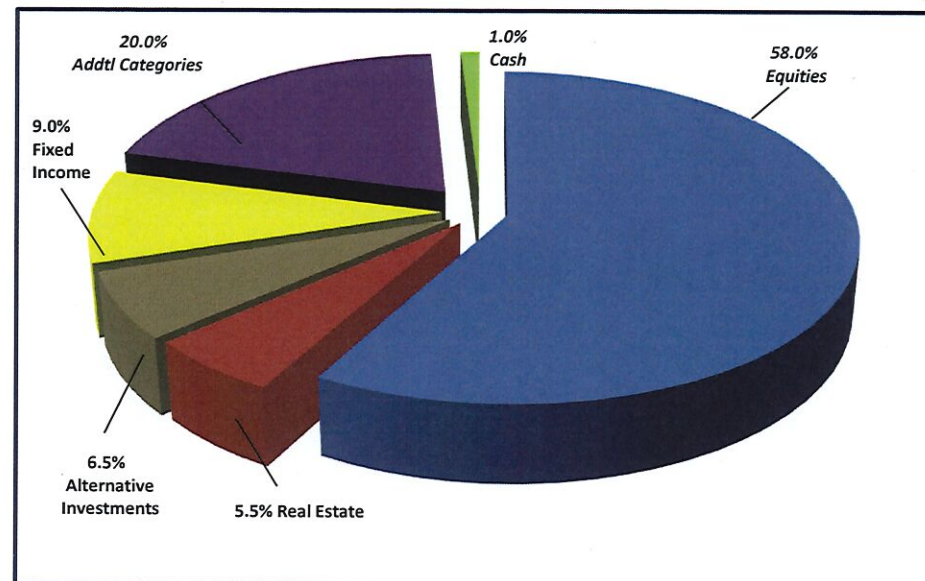
For the period ended March 31, 2018

(\$ in thousands)	\$'s	Actual %	Target %	Strategic Ranges
Equities	\$563,305.1	55.4%	58.0%	51.0 - 64.0%
Real Estate	57,128.0	5.6%	5.5%	3.0 - 10.0%
Alternative Inv.	77,850.7	7.7%	6.5%	3.0 - 11.0%
Fixed Income	91,743.7	9.0%	9.0%	6.0 - 12.0%
Addtl Categories	178,595.0	17.6%	20.0%	16.0 - 25.0%
Cash	\$47,698.7	4.7%	1.0%	0.0 - 4.0%
<b>Total</b>	<b><u>\$1,016,321.2</u></b>	<b><u>100.0%</u></b>	<b><u>100.0%</u></b>	

ACTUAL %



TARGET %





TO: Board of Trustees  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Report of the Governance and Audit Committee—Audit Report

On June 14, the Governance and Audit Committee met and received a report from the internal auditor as follows:

1. Review of Fiscal Year 2017-2018 Audit Summaries: The internal auditor reported to the committee on projects under the fiscal year 2017-2018 audit plan. The committee accepted the internal auditor's report.
2. Recommendation of Fiscal Year 2018-2019 Audit Plan: The internal auditor presented a report on the fiscal year 2018-2019 audit plan. The committee voted unanimously to approve the fiscal year 2018-2019 audit plan.

Recommendation: The committee accepted the report of the internal auditor.

Executive Secretary's Recommendation: The executive secretary recommends that the board accept and ratify the report of the Governance and Audit and Committee.

TO: Board of Trustees of the  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Report of the Insurance Committee

The Insurance Committee will have a special meeting on June 18, 2018, prior to the regular quarterly meeting of the board. The committee will present a report to the board during the regular quarterly meeting.

TO: Board of Trustees of the  
Teachers' Retirement System of Kentucky

FROM: Gary L. Harbin, CPA  
Executive Secretary

DATE: June 18, 2018

SUBJECT: Executive Secretary's Observations and Comments

1. Number of Retirements: The number of retirements for June/July this year was 112 greater than the number for the same period last year. The number of retirements this year was in line with the average (1,235) for the last 15 years. The chart below lists the number of retirements during June/July over the past 15 years.

<u>School Year Ended</u>	<u>Number of Retirees</u>
2018	1,381
2017	1,269
2016	1,294
2015	1,699
2014	1,267
2013	1,310
2012	1,405
2011	1,159
2010	1,203
2009	1,010
2008	1,353
2007	979
2006	1,098
2005	1,100
2004	1,363
2003	1,022

2. Executive Secretary serving as President of Public Sector Healthcare Roundtable: Gary Harbin is serving as the President of the Public Sector Healthcare Roundtable. The roundtable is a national coalition of public sector health care purchasers that has been formed to insure the interests of the public sector are properly represented during the formulation and debate of federal health care reform initiatives. The roundtable is governed by a board of directors and is managed by a governmental affairs firm based in Alexandria, VA.

3. Executive Secretary's Meetings: The executive secretary has had meetings with several groups recently and will report to the board concerning the following:

March 21, 2018	Meeting with public relations consultant
April 19, 2018	Meeting with public relations consultant
April 20, 2018	Meeting with Todd Asset Management
April 24, 2018	Presentation to KRTA annual convention

May 21, 2018	Conference call with investment experts
May 21, 2018	Meeting with responders to external auditor RFP
May 22, 2018	Meeting with responders to external auditor RFP
May 30, 2018	Conference call with federal tax legal counsel re: SB 151
May 31, 2018	Meeting with State Street Global Advisors
May 31, 2018	Meeting with public relations manager
June 1, 2018	Meeting with former TRS trustees
June 12, 2018	Know Your RX Coalition Board meeting
June 13, 2018	Meeting with KASS executive director

4. Director of Retiree Health Care serving on SALGBA board: Jane Gilbert serves on the board of the State and Local Government Benefits Association (SALGBA), which is a national organization whose purpose is to provide its members with educational and collaborative support. Since its inception in 1982, SALGBA members have held educational conferences in major cities across the country. SALGBA offers a continuing education program that provides accreditation as a Certified Government Benefits Administrator.

5. Chief Financial Officer serving on GFOA committee: Mark Whelan serves on the Government Finance Officers Association (GFOA), Committee on Retirement Benefits and Administration. GFOA is a national organization with more than 19,000 members. The committee works with state and local administrators, trustees and personnel officials to effectively manage state and local retirement funds and employee benefits. The committee tracks new industry practices, regulatory and legislative developments and issues best practices to assist public pension and personnel officers.

6. TRS Personalized Medicine Pilot Receives Award: On May 1, the State and Local Government Benefits Association (SALGBA) announced that TRS won the prestigious "SALGBA Challenge" for innovation in health care. SALGBA recognized the TRS Retiree Health Care Insurance Team (represented by Jane Gilbert, Grace Dotson and Leeann Uebel) for their work implementing the TRS Personalized Medicine Pilot.

7. Update on TRS Personalized Medicine Pilot: The executive secretary has invited 28,250 retired teachers to participate in the pilot. Currently, 3,488 retired teachers have enrolled; 2,131 have submitted DNA samples. Pharmacists with the Know Your RX Coalition have completed medication therapy management for 948 retired teachers and made recommendations for immediate medication changes for 56% of participants.

On May 1, the Know Your RX Coalition added a second full-time pharmacist to work on the pilot. This additional resource will help increase the number of participants receiving the benefit of the medication therapy management.

8. Next Meeting: The next quarterly meeting of the board will be September 18, 2018.