



TEACHERS' RETIREMENT SYSTEM of the State of Kentucky

BOARD OF TRUSTEES

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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 17, 2019, 12:30 p.m.

- Board Called to Order
- Roll Call
- 1. **Reports for Consent**
 - 1.1. **Consideration/Approval of Minutes**
 - 1.1.1. **Board of Trustees Quarterly Meeting March 18, 2019**
 - 1.1.2. **Governance and Audit Committee Special Meeting June 3, 2019**
 - 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 2019-2020 Board Chair and Vice Chair**
 - 2.3. **2019-2020 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. **2019-2020 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 Legislative Committee**
- 6. **Report of the Insurance Committee**
- 7. **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.

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Reports for Consent

1.1. Consideration/Approval of Minutes

1.1.1. Regular Quarterly Meeting of the Board of Trustees, March 18, 2019

1.1.2. Governance and Audit Committee Special Meeting, June 3, 2019

1.2. Applications for Retirement and Annuity

The lists of members who retired in March, April and May 2019 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 130 retirees with monthly payments totaling \$263,639.25. During the same period last year, there were 175 retirements with monthly payments totaling \$386,648.90.

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, 2019, will be available for examination at the meeting. During the period, there were nine survivor benefits with a total monthly payment of \$1,380.

Recommendation: The board is requested to approve the survivor benefit payments for the period January 1 through March 31, 2019, 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, 2019, will be available for examination at the meeting. There were 11 payments to the estates or beneficiaries of active teachers and 293 payments to the estates or beneficiaries of retired teachers for total payments of \$1,487,000. During the same quarter in 2018, there were 330 payments in the amount of \$1,617,000.

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, 2019, is attached. There were 752 refunds for the quarter January 1 through March 31, 2019, and the amount refunded was \$6,699,807.10. The refunds are for the following categories:

Regular withdrawals	702	\$6,026,949.97
Deaths	<u>50</u>	<u>\$ 672,857.13</u>
Totals	752	\$6,699,807.10

During the same quarter in 2018 there were 709 refunds totaling \$7,466,822.03.

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, 2019.

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
2019

	March	April	May	Total	Same Period 2018
Handicapped Child	<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
Disability Retirement	<i>3</i> \$10,954.37	<i>6</i> \$16,243.83	<i>7</i> \$18,421.65	<i>16</i> \$45,619.85	<i>18</i> \$45,297.55
Service Retirement	<i>37</i> \$65,624.14	<i>35</i> \$87,520.01	<i>40</i> \$58,884.81	<i>112</i> \$212,028.96	<i>153</i> \$331,104.33
Beneficiary of Member Eligible to Retire	<i>2</i> \$5,990.44	<i>0</i> \$0.00	<i>0</i> \$0.00	<i>2</i> \$5,990.44	<i>4</i> \$10,247.02
TOTALS	<i>42</i> \$82,568.95	<i>41</i> \$103,763.84	<i>47</i> \$77,306.46	<i>130</i> \$263,639.25	<i>175</i> \$386,648.90

TEACHERS' RETIREMENT SYSTEM

OF THE STATE OF KENTUCKY



INTERIM FINANCIAL STATEMENTS

QUARTER ENDED MARCH 31, 2019
(MARKET VALUE - UNAUDITED)

Statements of Plan Net Assets
as of March 31, 2019 and 2018
 (Market Value - Unaudited)

	Defined Benefit Plan		Health Insurance Plans		Life Insurance Plan		Other Funds		TOTAL	
	FY 2019	FY 2018	FY 2019	FY 2018	FY 2019	FY 2018	FY 2019	FY 2018	FY 2019	FY 2018
ASSETS										
Cash	\$ 137,089,956	\$ 83,181,068	\$ 44,381,745	\$ 40,200,059	\$ -	\$ -	\$ 27,846	\$ 63,711	\$ 181,499,547	\$ 123,444,838
Receivables										
Contributions	30,237,329	28,779,827	18,012,814	18,456,779	13,374	105,264			48,263,517	47,341,870
State of Kentucky	1,759,771	13,640,427	10,277,791	5,580,025	35,965	32,617			12,073,527	19,253,069
Investment Income	44,151,888	40,623,372	2,061,568	1,685,597	732,657	1,036,228	3,043	2,693	46,949,156	43,347,890
Investment Sales Receivable	27,087,137	15,967,717	1,242,292	1,342,821	3,143,096	-			31,472,525	17,310,538
Installment Account Receivable	234,230	307,905							234,230	307,905
Other Receivables	21,011	49,678	25,431,893	18,215,377					25,452,904	18,265,055
Due from Other Funds	1,779,623	-							1,779,623	-
Total Receivables	105,270,989	99,368,926	57,026,358	45,280,599	3,925,092	1,174,109	3,043	2,693	166,225,482	145,826,327
Investments at Market Value										
Short Term Investments	504,443,905	454,947,704	66,607,080	73,095,111	5,369,746	14,134,324	352,111	384,373	576,772,842	542,561,512
Bonds and Mortgages	3,011,015,945	3,054,218,952	107,148,853	90,534,105	25,283,091	51,322,552	257,180	250,304	3,143,705,069	3,196,325,913
Stocks	12,166,942,639	12,386,839,987	683,887,454	561,725,203	46,704,926	18,551,279	323,209	304,879	12,897,858,228	12,967,421,348
Alternative Investments	1,352,317,650	1,259,698,230	96,397,598	77,850,715					1,448,715,248	1,337,548,945
Real Estate	1,215,653,890	1,118,815,504	73,691,554	57,128,056	2,077,513				1,291,422,957	1,175,943,560
Additional Categories	1,403,026,369	1,406,967,543	198,880,831	175,459,536	1,312,751				1,603,219,951	1,582,427,079
Total Investments	19,653,400,398	19,681,487,920	1,226,613,370	1,035,792,726	80,748,027	84,008,155	932,500	939,556	20,961,694,295	20,802,228,357
Capital Assets	16,324,647	18,046,639							16,324,647	18,046,639
(net of accumulated depreciation)										
Total Assets	19,912,085,990	19,882,084,553	1,328,021,473	1,121,273,384	84,673,119	85,182,264	963,389	1,005,960	21,325,743,971	21,089,546,161
LIABILITIES										
Liabilities										
Accounts Payable	1,189,081	-	-	-					1,189,081	-
Contributions Not Posted	46,658,311	24,409,004	-	-					46,658,311	24,409,004
Investment Purchases Payable	52,408,776	18,604,978	4,865,300	3,601,921	231		-	-	57,274,307	22,206,899
Investment Fees Payable	14,103,336	15,983,153	1,046,539	796,350	7,605		-	-	15,157,480	16,779,503
Due to Other Funds	-	-	1,747,561	-	30,979	-	1,083	-	1,779,623	-
Revenues Collected in Advance	-	-	1,749,168	3,437,483					1,749,168	3,437,483
Total Liabilities	114,359,504	58,997,135	9,408,568	7,835,754	38,815	-	1,083	-	123,807,970	66,832,889
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS	\$ 19,797,726,486	\$ 19,823,087,418	\$ 1,318,612,905	\$ 1,113,437,630	\$ 84,634,304	\$ 85,182,264	\$ 962,306	\$ 1,005,960	\$ 21,201,936,001	\$ 21,022,713,272

Statements of Changes in Plan Net Assets
For the Nine Months Ended March 31, 2019 and 2018
 (Market Value - Unaudited)

	Defined Benefit Plan		Medical Insurance Plan		Life Insurance Plan		Other Funds		TOTAL	
	FY 2019	FY 2018	FY 2019	FY 2018	FY 2019	FY 2018	FY 2019	FY 2018	FY 2019	FY 2018
ADDITIONS										
Contributions										
Employer- State Paid	\$ 747,305,123	\$ 703,012,069	\$ 59,184,219	\$ 55,829,494	\$ 756,094	\$ 615,787	\$ -	\$ -	\$ 807,245,436	\$ 759,457,350
Employer- LSD, Other	52,293,992	56,039,300	71,876,023	72,195,385	147,527	113,769	-	162,975	124,317,542	128,511,429
Member- Active	216,519,525	217,120,556	88,363,366	88,649,079					304,882,891	305,769,635
Member- Retired			44,397,087	43,682,418					44,397,087	43,682,418
Recovery Income			63,588,552	61,019,327					63,588,552	61,019,327
Total Contribution	1,016,118,640	976,171,925	327,409,247	321,375,703	903,621	729,556	-	162,975	1,344,431,508	1,298,440,159
Investment Income/(Loss)										
Net Appreciation/(Depreciation) in										
Fair Value of Investments	55,943,287	1,369,987,573	26,784,101	61,669,685	1,520,720	(1,556,005)	20,462	16,118	84,268,570	1,430,117,371
Interest	124,849,759	111,101,385	5,249,505	2,733,390	1,062,174	2,280,007	14,315	7,644	131,175,753	116,122,426
Dividends	247,206,775	210,836,159	5,025,749	4,130,767	457,592	752	4,423	4,261	252,694,539	214,971,939
Rental Income, Net	21,482,964	22,380,038							21,482,964	22,380,038
Securities Lending, Net	2,124,051	3,009,319			23,583	1,655	451	210	2,148,085	3,011,184
Gross Investment Income	451,606,836	1,717,314,474	37,059,355	68,533,842	3,064,069	726,409	39,651	28,233	491,769,911	1,786,602,958
Less Investment Expense	(45,933,144)	(40,984,557)	(3,908,285)	(2,476,204)	(118,642)	-	(12,260)	-	(49,972,331)	(43,460,761)
Net Investment Income	405,673,692	1,676,329,917	33,151,070	66,057,638	2,945,427	726,409	27,391	28,233	441,797,580	1,743,142,197
Total Additions	1,421,792,332	2,652,501,842	360,560,317	387,433,341	3,849,048	1,455,965	27,391	191,208	1,786,229,088	3,041,582,356
DEDUCTIONS										
Benefits	1,570,763,997	1,502,290,289			3,677,000	4,051,106	187,403	147,744	1,574,628,400	1,506,489,139
Refunds of Contributions	26,687,777	26,314,863							26,687,777	26,314,863
Under 65 Insurance Expenses			86,086,761	88,162,176					86,086,761	88,162,176
Over 65 Insurance Expenses			146,141,459	144,223,208					146,141,459	144,223,208
Administrative Expense	8,247,168	8,508,297	-	-	-	-	-	-	8,247,168	8,508,297
Total Deductions	1,605,698,942	1,537,113,449	232,228,220	232,385,384	3,677,000	4,051,106	187,403	147,744	1,841,791,565	1,773,697,683
Net Increase (Decrease)	(183,906,610)	1,115,388,393	128,332,097	155,047,957	172,048	(2,595,141)	(160,012)	43,464	(55,562,477)	1,267,884,673
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS										
Beginning of year	19,981,633,096	18,707,699,025	1,190,280,808	958,389,673	84,462,256	87,777,405	1,122,318	962,496	21,257,498,478	19,754,828,599
Ending of period	\$ 19,797,726,486	\$ 19,823,087,418	\$ 1,318,612,905	\$ 1,113,437,630	\$ 84,634,304	\$ 85,182,264	\$ 962,306	\$ 1,005,960	\$ 21,201,936,001	\$ 21,022,713,272

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

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 the State of Kentucky

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Election of 2019-2020 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 for the succeeding fiscal year at the last meeting of the current fiscal year (the fourth quarter meeting).

KRS 161.340 was amended by HB 300 (2012 RS) 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.

Recommendation: The executive secretary recommends that the board elect a chair and vice chair consistent with KRS 161.340 and 102 KAR 2:010.

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: 2019-2020 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 current committees and their members are as follows:

Administrative Appeals

Hollis Gritton, Chair
Alison Wright, Vice Chair
Laura Schneider
John Boardman, Alternate

Governance & Audit

Hollis Gritton, Chair
Ron Sanders, Vice Chair
Frank Collecchia
Lynn Patterson, Alternate

Insurance

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

Investments

Ron Sanders, Chair
Hollis Gritton, Vice Chair
John Boardman
Frank Collecchia
Brenda McGown
Josh Underwood
Alison Wright
Lynn Patterson, 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
Brenda McGown, Vice Chair
Hollis Gritton
Lynn Patterson
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 the State of Kentucky

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

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 (2017 RS) provides for two trustees with investment experience appointed by the governor. The governor has made those appointments.

1. The chair at the meeting will review his recommendations for seven members and two alternates to serve on the Investment Committee for fiscal year 2019-2020 and ask the board to act on those.

Chair's recommendations for the Investment Committee for fiscal year 2019-2020:

Hollis Gritton, Chair
Brenda McGown, Vice Chair
John Boardman
Frank Collecchia
Josh Underwood
Active teacher trustee elected in 2019
Lay trustee elected in 2019
Laura Schneider, Alternate
Lynn Patterson, Alternate

2. Pursuant to the board's previously referenced direction, the Investment Committee, in 2009, appointed two highly respected, nationally recognized, investment experts to serve as non-voting members of the Investment Committee. Later in 2009, the board ratified the action of the Investment Committee, and both investment experts have been appointed annually since then to continue on the Investment Committee.

Recommendation: The executive secretary recommends that the board ratify the appointment of Bevis Longstreth and George Philip to serve on the Investment Committee for fiscal year 2019-2020.

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

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 members 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 they 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 the State of Kentucky

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

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, 2019.

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, 2019.”

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Transfer of Reserve Funds

KRS 161.420 requires TRS to transfer an amount equal to the accounts of members retiring on July 1 each year, 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 2019-2020 fiscal year as follows:

“The executive secretary is directed to determine the aggregate amount of the accumulated accounts of teachers retiring during 2019-2020 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 the State of Kentucky

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: 2019-2020 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 \$13,989,000 was approved by the legislature for the 2019-2020 fiscal year. The amount approved was \$1,868,800 less than the proposed budget recommended to the legislature by the board.

A copy of the proposed 2019-2020 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, 2019.

Recommendation: The executive secretary recommends that the board approve the proposed 2019-2020 Administrative Expense Fund Budget as presented.

Teachers' Retirement System Kentucky

Administrative Budget

	Budget 2018-2019	Proposed Budget 2019-2020
PERSONNEL COSTS		
Salaries & Wages	\$ 7,397,100	\$ 7,397,100
FICA/Medicare	246,200	246,200
Retirement	2,019,100	2,058,900
Health/Life Insurance	802,200	802,200
SUB TOTAL PERSONNEL	10,464,600	10,504,400
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
TOTAL PERSONNEL COSTS	11,504,800	11,544,600
OPERATING EXPENSES		
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>
TOTAL OPERATING EXPENSES	2,318,500	2,318,500
CAPITAL OUTLAY		
Furniture/Office Equipment	34,900	34,900
Computers over \$5,000	<u>91,000</u>	<u>91,000</u>
TOTAL CAPITAL OUTLAY	<u>125,900</u>	<u>125,900</u>
TOTAL EXPENDITURES	<u>\$ 13,949,200</u>	<u>\$ 13,989,000</u>

TEACHERS RETIREMENT SYSTEM KENTUCKY
ADMINISTRATIVE EXPENSES ANALYSIS

Our actual expenses vs. Budget	Assets End of Year	Actual Expenses	Basis Points	Budget Request	Budgeted Expenses	Percent Expended	Amount returned to Pension Fund at year end
<i>Through Current Year 4/30/19</i>		11,131,038		15,625,200	11,624,333	95.76%	
Fiscal Year 6/30/18	21,257,498,478	13,168,116	0.0619%	14,554,000	13,515,000	97.43%	86,312.25
Fiscal Year 6/30/17	19,754,828,599	11,881,187	0.0601%	13,412,000	12,934,000	91.86%	799,722.32
Fiscal Year 6/30/16	17,638,549,089	10,960,754	0.0621%	13,873,600	12,196,600	89.87%	785,982.95
Fiscal Year 6/30/15	18,766,823,240	10,440,118	0.0556%	12,829,400	12,196,600	85.60%	2,020,284.36
Fiscal Year 6/30/14	18,720,359,574	9,078,009	0.0485%	12,995,600	12,030,300	75.46%	3,814,011.56
Fiscal Year 6/30/13	16,613,402,131	9,677,241	0.0582%	12,410,000	12,030,300	80.44%	5,179,859.68
Fiscal Year 6/30/12	15,229,062,321	8,987,875	0.0590%	12,030,300	12,030,300	74.71%	3,208,685.47
Fiscal Year 6/30/11	15,514,921,656	8,530,724	0.0550%	11,428,700	11,428,700	74.64%	3,104,778.23
Fiscal Year 6/30/10	12,786,733,551	8,830,054	0.0691%	10,851,000	10,851,000	81.38%	2,187,712.93
Fiscal Year 6/30/09	11,830,163,585	8,165,757	0.0690%	10,102,600	10,102,600	80.83%	2,118,883.81
Fiscal Year 6/30/08	14,340,732,528	7,551,936	0.0527%	9,543,500	9,453,500	79.89%	2,044,217.34
Fiscal Year 6/30/07	15,633,802,824	7,351,846	0.0470%	9,075,400	9,075,400	81.01%	1,877,948.70
Fiscal Year 6/30/06	13,983,541,499	6,839,859	0.0489%	8,613,500	8,613,500	79.41%	1,902,090.55
Fiscal Year 6/30/05	13,667,841,114	6,652,673	0.0487%	8,147,900	8,147,900	81.65%	1,751,527.21

Our expenses compared to similar size systems	Assets End of Year	Actual Expenses	Basis Points
Kentucky Retirement System 6/30/18	12,415,856,000	32,957,000	0.2654%
New Mexico Public Employees 6/30/18	15,210,482,641	12,667,256	0.0833%
Indiana Public Employees 6/30/18	12,694,328,000	20,844,000	0.1642%
Georgia Employees 6/30/18	17,898,920,000	16,308,000	0.0911%
Kansas Public Employees 6/30/18	19,696,209,235	12,459,619	0.0633%
Louisiana Teachers 6/30/18	21,046,702,165	14,046,725	0.0667%
Kentucky Teachers 6/30/18	21,257,498,478	13,168,116	0.0619%
Ohio Teachers Retirement System 6/30/18	78,637,651,000	65,734,000	0.0836%

TEACHERS RETIREMENT SYSTEM KENTUCKY
ADMINISTRATIVE EXPENSES ANALYSIS

Our actual expenses vs. Budget	Actuarial Liabilities End of Year	Actual Expenses	Basis Points	Budgeted Expenses	Percent Expended	Amount returned to Pension Fund at year end
<i>Through Current Year 4/30/19</i>		11,131,039		11,624,333.33	95.76%	
Fiscal Year 6/30/18	37,248,851,000	13,168,116	0.0354%	13,515,000.00	97.43%	86,312.25
Fiscal Year 6/30/17	36,620,675,000	11,881,187	0.0324%	12,934,000.00	91.86%	799,722.32
Fiscal Year 6/30/16	35,768,359,000	10,960,754	0.0306%	12,196,600.00	89.87%	785,982.95
Fiscal Year 6/30/15	34,774,285,000	10,440,118	0.0300%	12,196,600.00	85.60%	2,020,284.36
Fiscal Year 6/30/14	33,476,447,000	9,078,009	0.0271%	12,030,300.00	75.46%	3,814,011.56
Fiscal Year 6/30/13	32,432,630,000	9,677,241	0.0298%	12,030,300.00	80.44%	5,179,859.68
Fiscal Year 6/30/12	30,659,792,000	8,987,875	0.0293%	12,030,300.00	74.71%	3,208,685.47
Fiscal Year 6/30/11	29,479,929,000	8,530,724	0.0289%	11,428,700.00	74.64%	3,104,778.23
Fiscal Year 6/30/10	27,643,213,000	8,830,054	0.0319%	10,851,000.00	81.38%	2,187,712.93
Fiscal Year 6/30/09	29,945,493,000	8,165,757	0.0273%	10,102,600.00	80.83%	2,118,883.81
Fiscal Year 6/30/08	28,979,091,000	7,551,936	0.0261%	9,453,500.00	79.89%	2,044,217.34
Fiscal Year 6/30/07	27,266,457,000	7,351,846	0.0270%	9,075,400.00	81.01%	1,877,948.70
Fiscal Year 6/30/06	24,666,744,000	6,839,859	0.0277%	8,613,500.00	79.41%	1,902,090.55
Fiscal Year 6/30/05	23,898,817,000	6,652,673	0.0278%	8,147,900.00	81.65%	1,751,527.21

Our expenses compared to similar size systems	Actuarial Liabilities End of Year	Actual Expenses	Basis Points
Kentucky Retirement System 6/30/18	43,668,462,000	32,957,000	0.0755%
New Mexico Public Employees 6/30/18	21,313,451,183	12,667,256	0.0594%
Indiana Public Employees 6/30/18	16,091,400,000	20,844,000	0.1295%
Georgia Employees 6/30/18	19,043,521,490	16,308,000	0.0856%
Kansas Public Employees 6/30/18	27,317,754,000	12,459,619	0.0456%
Louisiana Teachers 6/30/18	30,871,936,837	14,046,725	0.0455%
Kentucky Teachers 6/30/18	37,248,851,000	13,168,116	0.0354%
Ohio Teachers Retirement System 6/30/18	99,018,508,000	65,734,000	0.0664%

ACTUAL SPENDING V. BUDGET
FOR PERIOD ENDING APRIL,

2019

	ACTUAL Y T D	BUDGET Y T D	VARIANCE
Regular Salaries & Wages	\$ 5,771,771.06	\$ 6,164,250.00	392,478.94
Employers FICA	148,028.97	205,166.60	57,137.63
Employers Retirement Credit	1,609,062.00	1,682,583.30	73,521.30
Employer Health Insurance	685,754.68	665,500.00	(20,254.68)
Employer Life Insurance	835.25	3,000.00	2,164.75
Worker's Compensation	5,885.28	4,916.60	(968.68)
Unemployment Compensation	-	3,833.30	3,833.30
Employee Training	40,145.07	41,250.00	1,104.93
Employee Uniforms	-	833.30	833.30
Legal Services	31,499.55	126,916.60	95,417.05
Auditing Service	104,554.00	102,333.30	(2,220.70)
Medical & Dental Services	60,700.00	100,083.30	39,383.30
Consulting Services	89,500.00	100,000.00	10,500.00
Misc. Services	20,907.47	32,916.60	12,009.13
Court Reporting	-	1,000.00	1,000.00
Actuarial Services	190,014.00	319,250.00	129,236.00
Janitorial Services	33,475.00	33,500.00	25.00
Natural Gas	15,325.22	12,250.00	(3,075.22)
Electricity	71,546.59	66,833.30	(4,713.29)
Water & Sewage	-	10,666.60	10,666.60
Rent of Non-St Owned Build/Land	3,219.63	3,500.00	280.37
Rent of State Owned Build/Land	1,925.57	3,833.30	1,907.73
Rent of Equipment	225.00	416.70	191.70
Copy Machine Rental	13,330.83	14,166.60	835.77
State Carpool Rental	321.44	4,750.00	4,428.56
Maintenance-Buildings & Grounds	34,718.07	126,750.00	92,031.93
Maintenance of Equipment	6,015.58	6,166.60	151.02
Computer Maintenance	57,357.46	17,166.60	(40,190.86)
Postage & Postage Meters	346,180.54	398,666.60	52,486.06
Other Parcel Delivery Services	1,226.14	5,416.70	4,190.56
Printing Pd to State Agency	-	2,916.70	2,916.70
Printing Pd to Vendor	77,100.28	196,166.70	119,066.42
Insurance Premium	194,601.24	174,583.30	(20,017.94)
Garbage Collection	1,216.87	2,500.00	1,283.13
Service Not Otherwise Classified	7,081.52	6,250.00	(831.52)
Telephone Paid to Vendor	15,731.87	23,500.00	7,768.13
Dept Tech Serv Computer Charges	45,941.43	110,833.30	64,891.87
Comp Modem-Line Chg	-	3,333.30	3,333.30
Computer Equip Under \$5000	11,666.51	98,916.60	87,250.09
MARS Charges	28,050.00	17,083.30	(10,966.70)
Office Supplies	30,065.65	51,083.30	21,017.65
Motor Vehicle Supplies & Parts	669.66	1,000.00	330.34
Building Material & Supplies	412.36	2,583.30	2,170.94
Motor Fuel & Lube	1,063.89	1,750.00	686.11
Furn/Fixtures/Equip Under \$5000	2,274.99	11,750.00	9,475.01
Books for Dept Use	407.00	1,166.70	759.70
Computer Software	666,794.95	435,583.30	(231,211.65)
Banking Service & Fees	-	-	-
Storage	8,331.60	5,750.00	(2,581.60)
In-State Travel	18,490.45	19,666.60	1,176.15
Out-of-State Travel	14,825.90	25,000.00	10,174.10
Travel Non-State Employees	900.80	4,166.60	3,265.80
Dues & Subscriptions	39,085.72	57,500.00	18,414.28
Other	2,686.42	8,416.70	5,730.28
Furniture/Fixture/Equip Over \$5000	-	29,083.30	29,083.30
Telephone/Telecom Equipment	-	-	-
Computer Equip Over \$5000	620,115.00	75,833.30	(544,281.70)
	<u>\$ 11,131,038.51</u>	<u>\$ 11,624,332.20</u>	<u>493,293.69</u>

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

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 2019-2020.

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

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 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 also has over time departed from many of the standards established in the state's personnel system. For example, TRS uses a 40-hour work week (compared to the state's 37.5-hour work week) because the 40-hour week is 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. The budget passed in the 2018 Regular Session of the General Assembly provides for no state employee annual increments.

The executive secretary requests authorization from the board to approve normal salary advancements that will maintain salary increments for TRS employees equal to that received by state employees, as provided by the TRS's Employee Compensation Plan, during fiscal year 2019-2020.

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 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 approve normal salary advancements that will maintain salary increments for TRS employees equal to that received by state employees, as provided by TRS's Employee Compensation Plan, during fiscal year 2019-2020.

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Report of the Investment Committee

1. Investment Committee Meeting and Actions: The investments approved at the May 23, 2019, Investment Committee meeting are as follows: Up to \$50 million from the TRS Retirement Annuity, up to \$10 million from the TRS Medical Trust and up to \$500,000 from the TRS Life Insurance account into Apax X LP; and up to \$50 million from the TRS Retirement Annuity, up to \$5 million from the TRS Medical Trust and up to \$500,000 from the TRS Life Insurance account into Oaktree Mezzanine Fund V LP. Outside managers UBS Global Asset Management and Gávea Investimentos reported to the committee on their respective portfolios.

Staff reported to the Investment Committee an analysis of the investment manager contracts requiring consideration for renewal for fiscal year 2019-2020. Last year, the committee approved standard investment contracts for the period from July 1, 2018, through June 30, 2019. This year, the same standard contracts were approved by the committee for the period from July 1, 2019, through June 30, 2020 as follows:

Money Managers: Galliard Capital Management; State Street Global Advisors Trust Co.; UBS Global Asset Management (Americas) Inc.; UBS Global Asset Management (Americas) Inc. and UBS Asset Management Trust Company; Wellington Management Co.; Todd Asset Management LLC; and Fort Washington Investment Advisors Inc.

2. Purchases and Disposals: The Report of the Investment Committee for the quarter ended March 31, 2019, is presented for review and approval. During this quarter, 1,778 purchases amounted to \$2,278,739,845.12 and 2,520 disposals amounted to \$2,237,522,529.51. The disposals consisted of 2,165 sales, 314 principal payments and 41 redemptions. While the TRS investment department 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, TRS's invested securities had a book value of \$15,480,506,360.47 and a market value of \$19,674,608,730.36.

3. Staff's Comments on Economic and Market Conditions: Risk assets and fixed income markets performed well over the first quarter, largely driven by a more accommodative stance by the Federal Open Market Committee. The global equity market, as represented by the MSCI All Country World index, rose over 12% during the quarter, while fixed income markets benefited from the shift in interest rate expectations. Positive returns were generated despite declining growth forecasts in Asia and Europe, weak global inflation, market uncertainty caused by geopolitical risks such as Brexit and global markets destabilized by ongoing trade wars.

Interest rates declined notably over the period amid signs of weakness in economic growth and a continued lack of inflationary pressure. During the quarter, the 10-year nominal Treasury yield fell to 2.39%, a level not seen since 2017, while the yield curve continued to flatten and even invert across certain maturities. The curve inversion in the three-month to 10-year segment garnered the most attention due to its reliability as a leading indicator of recessionary pressures. While the inversion only lasted a few days, market participants focused on the implications of the broader yield curve movement on expectations for near-term recessionary risks. The labor market has not yet reflected recessionary fears as U.S. employment remains at record levels, with the labor force participation rate remaining steady and average hourly earnings improving.

U.S. equity markets rebounded strongly during the first quarter, with all major indices across size and style finishing in positive territory. The S&P 500 index returned 13.6% during the quarter, marking its best quarterly return since the third quarter of 2009, and the best first quarter return since 1998. This sharp reversal from a dismal fourth quarter was most prominent during January and February, but was challenged during March upon concerns of slowing global economic growth and a collapse in bond yields. The broad-based rally was led by growth stocks as the Russell 3000 Growth index outperformed its value counterpart by 4.3%. Smaller-capitalization stocks outpaced their large-cap counterparts, but the mid-cap segment provided the highest returns. Returns were positive across all sectors during the quarter, led by technology as the S&P 500 Information Technology index returned 19.9%. Dispersion among factor returns was seen as the high beta, momentum and quality stocks drove market returns higher. The S&P 500 High Beta index returned 18.1%, outperforming all other factor groups, while the S&P 500 Enhanced Value index returned 9.5%. Active management results were mixed considering the risk-on environment that favored higher-growth and higher-momentum stocks. Performance among value managers generally was more challenged as the market reaction to fewer expected rate hikes weighed more heavily on value-oriented sectors, such as financials.

Developed international markets generated positive returns during the quarter, but did not keep pace with the strong U.S. equity returns. Growth stocks significantly outperformed value stocks, and small-cap returns exceeded large-cap returns. The positive returns from developed markets were generated despite the continued economic slowdown in Europe. Negative indicators for this region include poor production and growth data from Germany, France and Italy. The improved investor sentiment likely is due, in part, to the European Central Bank announcing renewed lending to commercial banks and a commitment to a low deposit rate throughout 2019.

Aided by U.S. Treasury rates declining across all maturities, the Bloomberg US Gov/Credit index began the year strong, returning 3.3% for the quarter. While the rate decline was marginal at the shortest maturities, those dated one-year and longer fell between 0.21% and 0.28% in near-uniform fashion, exacerbating both the flattening and inverting trends of the yield curve. At quarter end, the one-month T-bill had a higher yield than Treasury securities between one and 10 years. The decline in yields was particularly beneficial to longer dated assets, with the Bloomberg US Government Long index returning 4.6%. As investors returned to their risk-on sentiment, corporate spreads tightened after a brief widening in the fourth quarter to help boost returns in the sector. Lower-rated debt was particularly positive, with the BofAML US High Yield Master II index returning 7.4%.

Core private real estate returned 1.4% during the first quarter, as tracked by the NCREIF-ODCE index, with the total return comprised of 1% income and 0.4% price appreciation. This represented a 34-basis point decline over the prior quarter for the appreciation component of total return. The income return component declined 1 basis point remaining in line with historical levels.

4. Performance: Investment performance was positive for the quarter ending March 31, 2019. The Retirement Annuity Trust Fund's portfolio gained 9.37% for the quarter, outperforming the policy index which increased 9.24%. TRS's domestic equities increased 14.4%, as the S&P 1500 Stock index gained 13.6% for the quarter. TRS's international stocks returned 13.8%, outperforming the MSCI All Country ex US index, which had a return of 10.4% for the quarter. Real Estate and Additional Categories were positive contributors as real estate returned 1.8% while Additional Categories gained 3.8%. TRS's fixed income returned 3.3%, matching the Bloomberg US Gov/Credit Bond index for the quarter.

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

*Teachers' Retirement System of the State of Kentucky
Retirement Annuity Trust
Quarterly Investment Performance
Gross Returns
For the Period Ended March 31, 2019*

FINAL	Market Value	Last Qtr	FYTD	1-Year	3-Year*	5-Year*	10-Year*	20-Year*
TOTAL PLAN	\$ 19,674,608,730.36	9.37	2.30	3.73	9.85	7.17	11.00	6.05
<i>Policy Benchmark</i>		9.24	3.88	5.26	9.79	7.16	11.03	-
Total Equity	\$ 12,315,648,340.67	14.18	0.07	1.69	11.94	8.05	14.21	5.76
Domestic Equity	\$ 7,904,622,404.02	14.39	2.32	5.73	12.99	9.86	15.79	6.52
<i>S&P 1500 Index</i>		13.64	4.95	8.79	13.34	10.64	16.01	-
All-Cap Equities	\$ 326,140,332.87	12.55	4.19	6.71	-	-	-	-
<i>Russell 3000</i>		14.04	4.70	8.77	-	-	-	-
Large-Cap Equities	\$ 6,500,915,229.24	14.21	2.93	6.03	13.01	9.97	15.58	-
<i>S&P 500 Index</i>		13.65	5.86	9.50	13.51	10.91	15.92	6.03
Mid-Cap Equities	\$ 668,937,149.26	17.36	1.28	5.49	13.90	10.04	16.92	-
<i>S&P 400 Index</i>		14.49	-1.63	2.59	11.24	8.29	16.28	-
Small-Cap Equities	\$ 408,629,692.65	14.28	-5.46	1.35	12.49	8.45	17.49	-
<i>S&P 600 Index</i>		11.61	-6.63	1.57	12.55	8.45	17.00	-
International Equity	\$ 4,411,025,936.65	13.76	-3.88	-5.16	10.03	4.15	10.59	-
<i>MSCI AC World Ex US</i>		10.44	-1.38	-3.74	8.61	3.05	9.35	-
Fixed Income	\$ 3,130,752,453.12	3.27	5.03	4.95	2.64	3.23	4.84	5.36
<i>Barclay's Govt./Credit Index</i>		3.26	4.83	4.48	2.12	2.78	3.92	4.79
Real Estate								
In House Real Estate Equity	\$ 424,559,554.26	1.75	6.22	8.15	10.82	9.98	8.87	9.01
<i>CPI plus 2%</i>		1.06	2.71	3.90	4.25	3.52	3.84	4.18
Core Real Estate:	\$ 466,347,036.70	1.86	6.61	9.02	8.32	10.70	6.87	-
<i>NCREIF ODCE (VW)</i>		1.42	5.36	7.52	7.97	10.18	8.74	-
Non-Core Real Estate:	\$ 324,747,299.09	1.77	7.51	10.53	12.36	15.41	-	-
<i>NCREIF Property Index</i>		1.80	4.93	6.83	7.07	9.13	-	-
Private Equity	\$ 1,168,962,152.35	-1.10	7.61	10.84	13.51	12.37	13.03	-
Mature Private Equity	\$ 371,792,180.39	-4.01	5.53	8.16	9.49	10.23	-	-
<i>S&P 500 plus 3%</i>		14.49	8.23	12.78	16.91	14.24	19.40	-
Private Equity < 5 Years	\$ 797,169,971.96	0.65	8.66	12.32	16.88	13.88	-	-
Timberland:	\$ 183,355,497.96	1.52	3.16	5.08	1.58	4.14	3.01	-
<i>NCREIF Timberland Index</i>		0.11	1.89	2.38	3.27	4.63	3.74	-
Additional Categories:	\$ 1,425,067,101.73	3.83	4.83	5.73	7.42	4.13	-	-
<i>B of A Merrill Lynch High Yield Master II</i>		7.40	4.89	5.93	8.69	4.70	-	-
Cash (Unallocated)	\$ 235,169,294.48	0.59	1.66	2.17	1.25	0.80	0.48	2.03
<i>90 Day T-Bill</i>		0.60	1.66	2.12	1.17	0.73	0.41	1.77

Total Plan Gross Return for 30-year period* 8.27

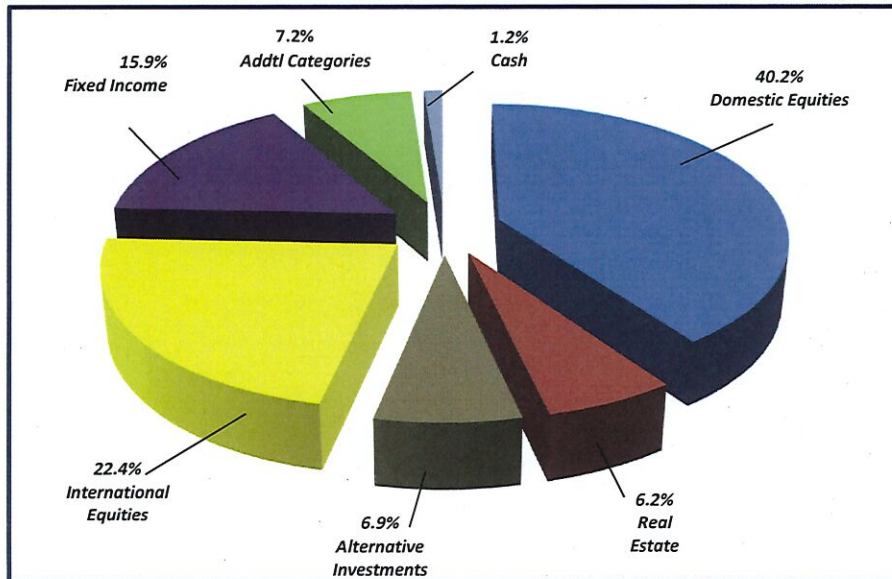
*Returns are annualized for periods longer than one year

** 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.

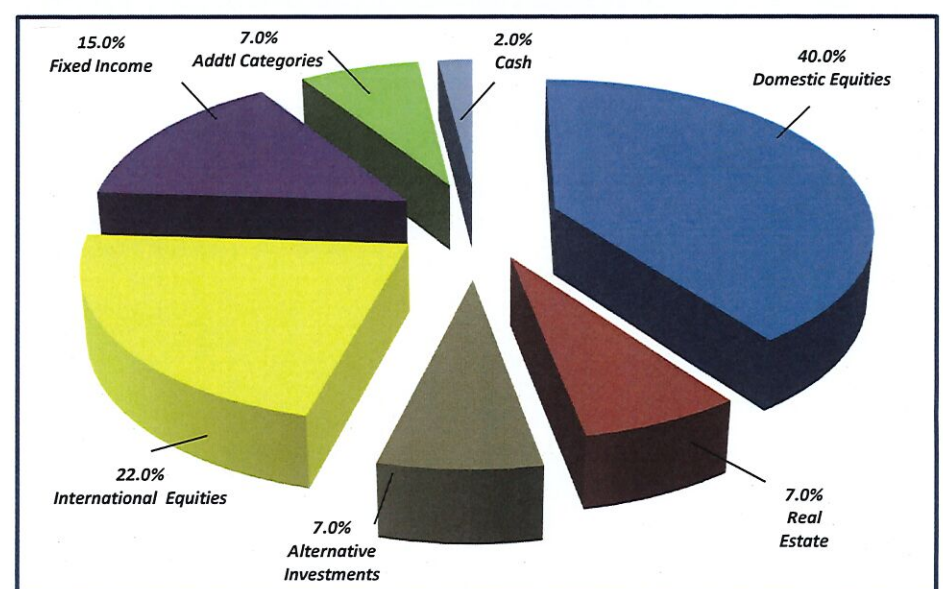
Teachers' Retirement System of Kentucky
Quarterly Investment Update
For the period ended March 31, 2019

(\$ in millions)	\$'s	3/31/2019 Actual %	12/31/2018 Actual %	Target %	Strategic Ranges
Domestic Equities	\$7,904.6	40.2%	39.2%	40.0%	34.0 - 48.0%
Real Estate	1,215.7	6.2%	6.6%	7.0%	4.0 - 10.0%
Alternative Inv.	1,352.3	6.9%	7.5%	7.0%	4.0 - 10.0%
International Equities	4,411.0	22.4%	20.9%	22.0%	18.0 - 25.0%
Fixed Income	3,130.7	15.9%	16.8%	15.0%	12.0 - 19.0%
Addtl Categories	1,425.1	7.2%	7.6%	7.0%	4.0 - 10.0%
Cash	\$235.2	1.2%	1.4%	2.0%	1.0 - 3.0%
Total	\$19,674.6	100.0%	100.0%	100.0%	

ACTUAL %



TARGET %



Teachers' Retirement System of the State of Kentucky
Health Insurance Trust
Quarterly Investment Performance
Gross Returns
For the Period Ended March 31, 2019

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>TOTAL PLAN</u>	\$ 1,205,717,818.37	7.94	3.31	4.29	9.64	5.90
<i>Policy Benchmark</i>		8.65	2.95	3.80	9.53	-
<u>Total Equity</u>	\$ 685,175,551.48	12.35	1.45	2.45	10.81	6.68
<u>All Cap Equities</u>	\$ 36,293,260.25	12.46	2.30	4.73	-	-
<i>Russell 3000</i>		14.04	4.70	8.77	-	-
<u>Global Equities</u>	\$ 648,882,291.23	12.34	1.38	2.30	10.95	6.76
<i>MSCI AC World IMI (Net)</i>		12.29	1.15	1.89	10.58	6.33
<u>Fixed Income</u>	\$ 115,693,249.40	2.98	4.70	4.73	1.86	2.06
<i>Barclays Government Credit</i>		3.26	4.83	4.48	2.12	2.78
<u>Core Real Estate</u>	\$ 34,796,435.66	1.85	7.38	9.50	8.22	-
<i>NCREIF ODCE (VW)</i>		1.42	5.36	7.52	7.97	-
<u>Non-Core Real Estate</u>	\$ 38,895,118.71	2.28	8.95	12.53	13.66	-
<i>NCREIF Property Index</i>		1.80	4.93	6.83	7.07	-
<u>Private Equity</u>	\$ 96,397,597.88	-1.52	6.49	8.51	15.61	15.83
<u>Mature Private Equity</u>	\$ 9,934,022.00	0.02	15.81	16.34	15.84	15.63
<i>S&P 500 plus 3%</i>		14.49	8.23	12.78	16.91	14.24
<u>Private Equity < 5 Years</u>	\$ 86,463,575.88	-1.29	5.31	7.75	15.59	-
<u>Additional Categories:</u>	\$ 203,334,647.92	4.59	4.94	5.42	8.09	4.00
<i>B of A Merrill Lynch High Yield Master II</i>		7.40	4.89	5.93	8.69	4.70
<u>Cash (Unallocated)</u>	\$ 31,425,217.32	0.84	1.90	2.39	1.29	0.83
<i>90 Day T-Bill</i>		0.60	1.66	2.12	1.17	0.73

*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

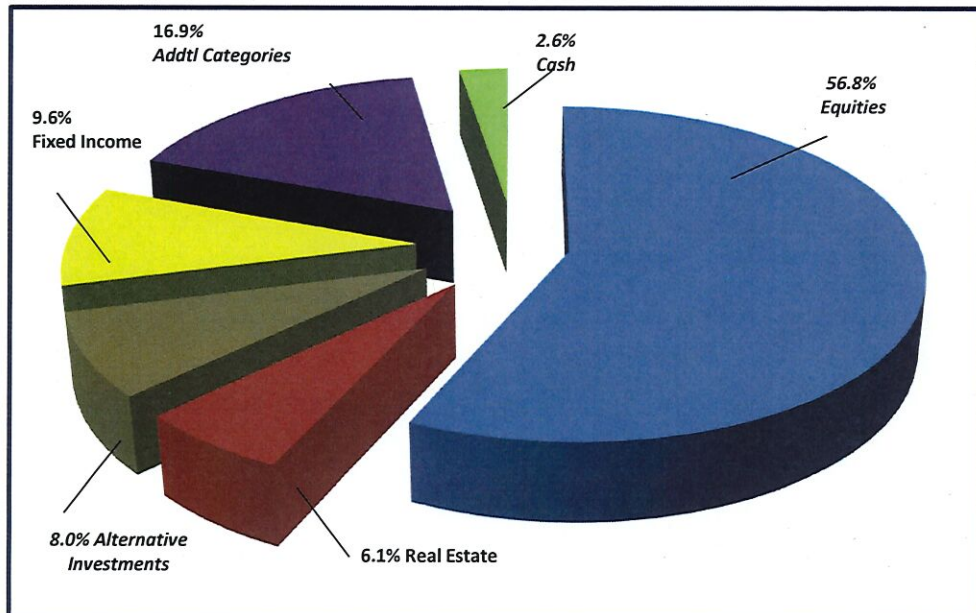
Insurance Trust Fund

Quarterly Investment Update

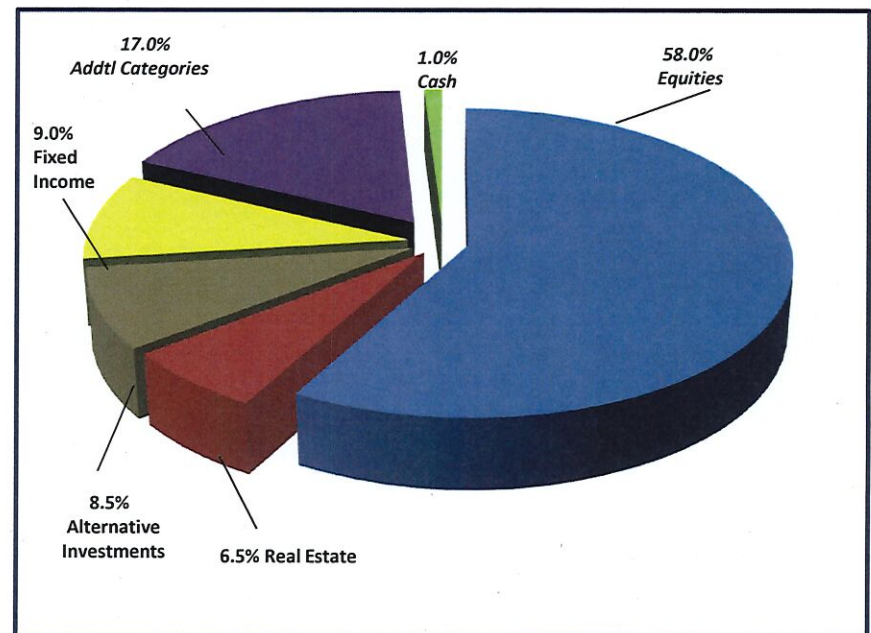
For the period ended March 31, 2019

(\$ in thousands)	\$'s	3/31/2019 Actual %	12/31/2018 Actual %	Target %	Strategic Ranges
Equities	\$685,175.6	56.8%	55.9%	58.0%	51.0 - 64.0%
Real Estate	\$73,691.6	6.1%	6.5%	6.5%	4.0 - 12.0%
Alternative Inv.	\$96,397.6	8.0%	9.1%	8.5%	5.0 - 12.0%
Fixed Income	\$115,693.2	9.6%	10.3%	9.0%	6.0 - 12.0%
Addtl Categories	\$203,334.6	16.9%	17.6%	17.0%	14.0 - 21.0%
Cash	\$31,425.2	2.6%	0.6%	1.0%	0.0 - 4.0%
Total	\$1,205,717.8	100.0%	100.0%	100.0%	

ACTUAL %



TARGET %



TOTAL BV INVESTED AT 12/31/18 \$ 15,439,289,044.86

January Activity

Purchases	694,434,538.10
Disposals	(672,062,814.98)
Paydowns	(1,068,650.34)
Redemptions	(8,481,372.55)
Short-Term Pool Net	<u>79,214,245.60</u>

February Activity

Purchases	476,498,320.91
Disposals	(455,284,479.49)
Paydowns	(2,231,602.08)
Redemptions	(3,851,619.42)
Short-Term Pool Net	<u>(57,090,196.78)</u>

March Activity

Purchases	307,746,374.27
Disposals	(305,192,028.08)
Paydowns	(2,291,945.22)
Redemptions	(38,171,886.93)
Short-Term Pool Net	<u>29,050,432.60</u>

(8,859,053.36)

TOTAL BV INVESTED AT 03/31/19

\$ 15,430,429,991.50

* 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, (\$25,321,633.76) 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	525,652,238
- Pending Payable	<u>25,321,634</u>
Net	<u><u>500,330,604</u></u>

INVESTMENT ACTIVITY**January 1, 2019 -- March 31, 2019****Total Book Value Invested @ 1/1/19** \$ 15,439,289,044.86

Purchases:

372	Cash Equivalents	\$	800,060,611.84	
107	Fixed Income Securities		424,030,782.54	
1051	Equity Securities		768,117,891.24	
27	Real Estate		41,728,666.23	
67	Alternative Investments		88,641,193.31	
154	Additional Categories		156,160,699.96	
1778	Total Purchases	\$	2,278,739,845.12	

Disposals:

264	Cash Equivalents	\$	748,886,130.42	
197	Fixed Income Securities		408,154,700.62	
313	Principal Paydowns		4,865,197.64	
39	Redemptions / Maturities		50,486,747.05	
1363	Equity Securities		806,181,185.52	
30	Real Estate		16,966,302.50	
123	Alternative Investments		62,241,941.28	
188	Additional Categories		138,995,192.63	
1	Additional Principal Paydowns		727,000.00	
2	Additional Redemptions / Maturities		18,131.85	
2520	Total Disposals	\$	2,237,522,529.51	

Total Book Value Invested @ 3/31/19 \$ 15,480,506,360.47**Total Par Value Invested @ 3/31/19** \$ 15,480,112,089.46**Total Market Value Invested @ 3/31/19** \$ 19,674,608,730.36

* 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, (\$25,321,633.76) 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	525,652,238
- Pending Payable	25,321,634
Net	<u>500,330,604</u>

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Report of the Governance and Audit Committee

On June 3, 2019, the Governance and Audit Committee of the board met and considered contracts for the next fiscal year and the report of the internal auditor.

1. Software Solution and Services for Financial Reports

TRS published a request for proposals (RFP) for a software solution and related services for preparing financial reports for the fiscal year 2019-2020. Based upon review of responses to the RFP, staff recommended contracting with Vertosoft. The committee accepted staff's recommendation.

Recommendation: The committee recommends contracting with Vertosoft for a software solution and related services for financial reports for fiscal year 2019-2020.

2. Contract Renewals: For fiscal year 2019, TRS published several RFPs to select service providers as mandated by Senate Bill 2 (2017 RS). Staff recommended to the committee renewal of those contracts for fiscal year 2019-2020 as follows:

A. Actuarial Services:

Cavanaugh Macdonald Consulting

B. Federal Tax, Fiduciary, Litigation and Other Legal Services:

Ice Miller
Reed Weitkamp Schell & Vice
Stoll Keenon Ogden
Williams & Jensen

C. Janitorial Services:

AC Advanced Cleaning Services

D. Printing Services:

SouthEast Printing & Mailing

E. Communications:

Mulloy Borland

Recommendation: The committee recommends renewal of these contracts for fiscal year 2020.

3. Investment Service Provider Contracts

Staff recommended renewal of investment service provider contracts for fiscal year 2020 as follows:

A. Investment Consulting, Annual Alternatives Report and Searches in Alternatives Area

Aon Hewitt

B. Investment Experts

Bevis Longstreth

George Philip

C. Investment Legal Counsel

Ice Miller

Reinhart Boerner Van Deuren

Recommendation: The committee recommends renewal of the contracts for fiscal year 2019-2020.

4. Internal Auditor's Report

A. Review of Fiscal Year 2018-2019 Audit Summaries: The internal auditor reported to the committee on projects under the fiscal year 2018-2019 audit plan. The committee accepted the internal auditor's report.

B. Recommendation of Fiscal Year 2019-2020 Audit Plan: The internal auditor presented a report on the fiscal year 2019-2020 audit plan. The committee voted unanimously to approve the audit plan.

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

Executive Secretary Recommendation: The executive secretary recommends that the board accept and ratify the report and recommendations of the committee.

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

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Report of the Legislative Committee

The Legislative Committee will have a special meeting on June 17, 2019, 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 the State of Kentucky

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Report of the Insurance Committee

The Insurance Committee will have a special meeting on June 17, 2019, 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 the State of Kentucky

FROM: Gary L. Harbin, CPA
Executive Secretary

DATE: June 17, 2019

SUBJECT: Executive Secretary's Observations and Comments

1. Number of Retirements: The number of retirements for June/July this year was 413 less than the number for the same period last year. The number of retirements this year was in line with the average (1,259) for the last 15 years. The chart below lists the number of June/July retirements over the past 15 years.

<u>School Year Ended</u>	<u>Number of Retirees</u>
2019	968
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

2. Executive Secretary serving as President of Public Sector Healthcare Roundtable: I serve 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, Virginia.

3. Executive Secretary's Meetings: I have met with several groups recently and will report to the board concerning the following:

March 25, 2019	Meeting with public relations consultant
March 25, 2019	Attended Public Pension Oversight Board meeting
March 26, 2019	Presented TRS Retirement Basics to new TRS staff

April 11, 2019	Meeting with Merl Hackbart, University of Kentucky
April 15, 2019	Meeting with public relations consultant
April 17, 2019	Meeting with Auditor of Public Accounts staff
April 18, 2019	Meeting with Kentucky Chamber of Commerce executive director
April 23, 2019	Presentation to KRTA annual convention
April 24, 2019	Attended meeting with Know Your Rx Coalition
April 26, 2019	Meeting with Fort Washington Investment Advisors
April 29, 2019	Meeting with Bellwether Enterprise
April 30, 2019	Meeting with Kentucky Chamber of Commerce staff
May 10, 2019	Meeting with Know Your Rx Coalition
May 16, 2019	Meeting with Todd Asset Management
May 17, 2019	Meeting with Know Your Rx Coalition
May 21, 2019	Meeting with UK HealthCare hospitals' pharmacy staff
May 24, 2019	Meeting with former TRS trustees
June 4, 2019	Attended Know Your Rx Coalition board meeting
June 6, 2019	Presentation to KRTA First District meeting

4. Federal health care issues: Jane Gilbert and I met with United Healthcare concerning the negative impact of federal legislation concerning point of sale rebates on pharmacy.

5. Pathway update: TRS has renewed its service agreement with Sagitec for ongoing maintenance and support of the Pathway system for the period May 1, 2019 through April 30, 2021. This is an extension of the service agreement negotiated in 2009, which included a competitive bidding process where Sagitec's propriety system was selected.

Recommendation: The executive secretary recommends that the board ratify the ongoing service agreement with Sagitec for the period May 1, 2019 through April 30, 2021.

6. 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 that provides 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.

7. 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 manage state and local retirement funds and employee benefits effectively. The committee tracks new industry practices; regulatory and legislative developments; and issues best practices to assist public pension and personnel officers.

The CFO also serves on the board of the Public Pension Financial Forum (P2F2). The membership of P2F2 includes finance directors and professionals from all over the United States. P2F2 is an education and professional networking organization that promotes financial excellence for public pension plans. P2F2 works with the Governmental Accounting Standards Board (GASB), Government Finance Officers Association (GFOA) and the American Institute of Certified Public Accountants (AICPA) with the development and implementation of accounting standards that affect public pension plans.

8. Update on the TRS Personalized Medicine Pilot: TRS's pilot program is receiving a great deal of attention from leaders in medicine and health care. The following points are some recent activities concerning the pilot program.

- On March 6, Jane Gilbert addressed a conference for "Genomics in Health & Wellness" hosted by the National Institutes of Health. The conference was attended by leading organizations and employers including Duke University, University of Washington, Ford Motor Co., Gunderson Health System, Johns Hopkins Health Care Solutions, Thermo Fisher Scientific and others.
- I spoke to the University of Kentucky's director of human resources, who expressed an interest in having UK employees join the pilot program.
- I spoke to UK's director of innovative pharmacy who expressed interest in investigating a drug purchasing arrangement with TRS and the Know Your Rx Coalition. UK HealthCare hospitals also are interested in the pilot program.
- I am scheduled to speak to the NCTR Annual Trustee Workshop in July concerning the pilot program.
- I was contacted by a Fortune 500 company's chief executive officer who expressed an interest in joining the pilot program with the company's 13,000 covered lives.
- Jane Gilbert met with the Kentucky Employees' Health Plan concerning its interest in participation in the pilot program.
- Jane Gilbert has been asked to speak at the Annual Conference on Personalized Medicine at Harvard Medical School in November.

9. Next Meeting: The next quarterly meeting of the board will be September 16, 2019.