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SIXTH ANNUAL REPORT  
TEACHERS' RETIREMENT SYSTEM  
of the  
STATE OF KENTUCKY  
1945-46

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LETTER OF TRANSMITTAL

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Commonwealth of Kentucky  
Teachers' Retirement System  
Frankfort

Honorable Simeon Willis  
Governor of Kentucky  
Frankfort, Kentucky

Dear Governor Willis:

The Sixth Annual Report of the Board of Trustees of the Teachers' Retirement System of the State of Kentucky, made in compliance with KRS. 161.320, is respectfully submitted.

The last actuarial valuation of the assets and liabilities, the last balance sheet, accumulated cash and securities of the system, membership, service, withdrawal, deaths, and other pertinent information are all included in this report in proper form.

Report of the Auditor of the Commonwealth of Kentucky, made under KRS. 43.050, has been filed and reference thereto is made.

Record of the proceedings of the Board of Trustees is maintained in good order, the funds of the System safely invested, and the Law faithfully carried out.

Respectfully yours,

(Signed) Mary J. Maguire  
Chairman, Board of Trustees

(Signed) N. O. Kimbler  
Secretary, Teachers' Retirement System

November 15, 1946

## INTRODUCTION

The most important event in the life of the Teachers' Retirement System during the fiscal year ended June 30, 1946, was the amendments to the Act. In addition to the general improvement of the Law, it increases the benefits of retired teachers which was badly needed, especially at this time. There is a general feeling of appreciation and gratitude on the part of the profession.

The amendments grew out of suggestions and recommendations of the teachers of the state, subject to some practical modification by the Actuary of the System. Since they had a voice and a part in initiating the changes, the amendments have been well received by the teachers and interest in their Retirement System is at a high level.

The Board of Trustees of the Teachers' Retirement System took a leading part, both in formulating the amendments and in securing their passage by the General Assembly.

The members of the Board serving during 1945-46 are:

Miss Mary J. Maguire, Chairman, Teacher Henry Clay High School, Lexington

Mr. L. C. Curry, Vice Chairman, Superintendent Bowling Green Public  
Schools, Bowling Green

Mr. Morton Walker, Teacher duPont Manual, Louisville

Mr. Edward L. Cawood, Lay member, Banker, Harlan

Hon. J. F. Williams, Superintendent of Public Instruction, Ex officio  
member, Frankfort

Hon. T. W. Vinson, State Treasurer, Ex officio member, Frankfort

Hon. Eldon S. Dummit, Attorney General, Ex officio member, Frankfort

The amended Retirement Law, in convenient form, has been mailed to all school administrators, and we have sufficient copies to mail upon request to all principals and teachers.

### In the Retirement Office

This has been a busy year. The average number on the office staff is 12. We sent out during the year 16,323 pieces of first-class mail, and 21,676 pieces of other classifications. We have received about as much.

The service records of 1,607 teachers have been checked and verified and their Retirement Certificates issued. We received service forms from 1,130 new teachers teaching their first year under the Retirement Law.

Many teachers moved during the year, and 1400 accounts have been transferred from one district control to another. Over 11,000 ledger cards have been headed up to receive deposits; and 525,000 lines have been machine posted, checked, and balanced.

We have processed and refunded 1,690 accounts; issued 1,906 quarterly annuity checks, and a total of 3,764 checks in all.

The teachers' records are so indexed and filed that we can look up a record during a brief long-distance telephone conversation. All mail is answered the day following its receipt or earlier.

A twenty-page Handbook for teachers was issued after the amendments were passed and 24,000 mailed to members.

The work in the office is current.

## STATISTICAL

Table I. Net Membership 1945-46

Net membership previously reported . . . . .	21,180
New members with prior service . . . . .	367
New members without prior service . . . . .	<u>1,130</u>
Total gross membership . . . . .	22,677
Withdrawals 1945-46 . . . . .	1,606
Deaths 1945-46 . . . . .	61
Members retired July 1, 1946 . . . . .	<u>136</u>
Net membership July 1, 1946 . . . . .	20,874

Table I does not include members who have not filed service forms as required by Section 161.480. Four hundred and ninety-two members entering previously filed service forms this year and were issued retirement certificates, bringing the total number of certificates issued to date to 28,599. More than 10,000 teachers who have received retirement certificates are no longer actively in the profession. Of this number 3,178 have been absent from teaching three years as of July 1, 1946, and their accounts became inactive at that time. On July 1, 1946, there were 27,905 active accounts, that is, currently receiving contributions or having received contributions within three years. Since there are approximately 18,000 membership positions in Kentucky, this leaves about 9,905 teachers who have taught as recently as three years, but who are not teaching now.

The posting of interest on all active accounts is made each month and the Teachers' Savings Fund balanced monthly. All this work is up to date and current and all funds are in balance.

During 1945-46 we gained one participating unit and lost six units, leaving a net number of 263 participating units.

Table II is the measure of the state's obligation for prior service as expressed in Section 161.550. The temporary annual appropriation should be 2% of the aggregate salaries given in Table II. The matching requirements have been so high that the state has been in the past a little cold toward this obligation. So far, we have experienced no immediate danger, but it is not good business to neglect this obligation so expressly stated in the Act.

Table II. Number of Members, Prior Service and Prior Service Salaries  
End of Sixth Year

Items	Number	PRIOR SERVICE		PRIOR SERVICE SALARY	
		Total	Average	Aggregate	Average
Brought Forward .....	21,180	193,656.2	9.14	\$15,932,987.94	\$752.26
New with Prior Service ....	367	2,448.2	6.7	365,460.76	995.81
New without Prior Service	1,130	-	-	-	-
Sub Total .....	22,677	196,104.4	9.1	\$16,298,448.70	\$756.41
Withdrawals .....	1,003	7,066.9	7.0	830,470.20	827.99
	603	-	-	-	-
Deaths .....	61	739.9	12.1	53,053.54	869.73
Retired July 1, 1946 .....	136	3,658.4	26.9	126,327.68	928.88
Totals and Averages	20,874	184,639.	9.35	\$15,288,597.28	\$774.34

However, the amount appropriated to 1946 has been sufficient to meet present needs; that is, to cover cost of pensions based upon prior service. The \$1,565,762.89 is the estimated balance needed to pay for the prior service of all members retired to date.

Table IIA shows the amount the state should have contributed and the amount it did contribute for prior service each year.

During 1946-47 an actuarial study will be made to determine the effect of the amendments on this obligation and the results of the study will be included in our Seventh Annual Report.

It is reasonable to suppose that not all members holding prior service credit will retire, and the 2% of prior service salaries is an arbitrary measure, nevertheless it is best for the state and for the Retirement System that this obligation be met currently.

If the average prior service salary is \$750.00 per year, the average prior service credit 10 years, and the average life expectancy at time of retirement 11 years, it would require, roughly, \$8,000,000.00 to meet this obligation if 50% of the teachers holding prior service credit retire with an annuity. If this amount is amortized over a period of 20 years at 3%, the annual amount is fairly close to 2% of the aggregate of prior service salaries as provided in the Law.

Table IIA. Temporary Appropriations for Prior Service - State Accumulation Fund  
A/c #2 1940-46

Year	Aggregate Prior Service Salaries	Legal Appropriation of 2%	Amount Appropriated	Remaining Unappropriated
1940-41	\$17,118,618.38	\$ 342,372.37	\$ -	\$ 342,372.37
1941-42	16,899,681.77	337,993.64	-	337,993.64
1942-43	16,997,806.67	339,956.13	68,007.63	271,948.50
1943-44	16,417,966.20	328,359.32	79,205.38	249,153.94
1944-45	15,932,987.94	318,659.76	126,531.94	192,127.82
1945-46	15,288,597.28	305,771.95	133,605.33	172,166.62
Totals		\$1,973,113.17	\$407,350.28	\$1,565,762.89

The 1,130 members distributed in Table III include 274 members who entered the Retirement System from 1941 to 1945, but who did not file Service Form A-2 until the scholastic year 1945-46. The remaining number, 856, filed their Service Forms at the time they entered the Retirement System in 1945-46, and, therefore, the age indicated is the attained age. Age of entrance is used for the 274 members referred to above.

The average entrance salary of those entering prior to the year 1945-46 is \$902.07, while the average entrance salary for the 856 members who began teaching in the fall of 1945 is \$1,064.27; the general average of entrance salaries of this group of 1,130 members is \$1,024.94.

Many of these entering members are comparatively young, there being age of twenty or under a total of 454 or approximately 40%.

Table IV distributes 367 members with prior service, the bulk of whom are age 31 to age 44 showing a tendency to return to the profession after service in war industry.

Of the 367 members distributed in Table IV, 256 returned to the profession in the year 1945-46 and had not taught since July 1, 1940. The remaining 111 entered the profession earlier, but filed Service Form A-1 in the current scholastic year.

It is noticeable that while these members have had an average of 6.7 years of experience, the average of their salaries is \$995.81 compared with an average salary of \$1,024.94 for the group of younger teachers entering without experience. This difference is not great, but it indicates lack of high school training on the part of the older members who are returning to the profession.

The average salary for 316 new entrants with prior service for the year 1944-45 was \$1,026.04. It is significant that the modal year of each is the same for the experienced teachers returning to the profession for last year and the current year. We believe that the security offered by the Retirement System is an influence causing such experienced teachers to return to the profession.

Table III. Distribution by Ages of 1,130 New Entrants without Prior Service who have Filed A-2's After Tables were Made July 1, 1945

Age	Number	SALARIES	
		Total	Average
18 - 20	454	\$ 381,937.05	\$ 841.27
21	94	103,619.19	1,102.33
22	71	77,305.59	1,088.81
23	51	56,838.15	1,114.47
24	52	52,450.11	1,008.66
25	29	33,990.72	1,172.09
26	32	39,594.19	1,237.32
27	31	34,423.66	1,110.44
28	21	22,170.95	1,055.76
29	27	36,178.97	1,339.96
30	30	32,971.56	1,099.05
31	31	36,763.00	1,185.90
32	16	17,751.39	1,109.46
33	23	27,784.09	1,208.00
34	14	14,790.60	1,056.47
35	24	30,506.39	1,271.10
36	15	18,378.60	1,225.24
37	12	14,059.04	1,171.59
38	15	19,361.45	1,290.76
39	11	14,601.77	1,327.43
40	11	11,862.61	1,078.42
41	9	10,458.40	1,162.04
42	10	9,993.76	999.38
43	5	5,481.60	1,096.32
44	10	12,506.05	1,250.61
45	1	1,438.40	1,438.40
46	6	7,404.43	1,234.07
47	1	1,620.00	1,620.00
48	1	1,350.00	1,350.00
49	5	6,977.30	1,395.46
50	2	2,422.50	1,211.25
51	1	969.30	969.30
52	3	4,452.50	1,484.17
53	3	4,950.00	1,650.00
54	1	1,137.60	1,137.60
55	1	2,000.00	2,000.00
56	1	855.75	855.75
57	1	1,155.60	1,155.60
58	1	559.30	559.30
59	1	1,530.00	1,530.00
60	1	1,683.00	1,683.00
61 - 65	0	0.00	0.00
66	1	1,080.00	1,080.00
67	1	820.05	820.05
Totals and Average	1,130	\$1,158,184.62	\$1,024.94



Table IV. Distribution by Ages of 367 New Entrants with Prior Service 1941-46 who  
Filed A-1's after Tables were Made July 1, 1945

Age	Number	PRIOR SERVICE		SALARIES	
		Total	Average	Total	Average
18 - 23	0	0.0	0.0	\$ 0.00	\$ 0.00
24	1	1.0	1.0	549.43	549.43
25 - 26	0	0.0	0.0	0.00	0.00
27	4	15.4	3.9	5,444.10	1,361.03
28	4	17.7	4.4	3,752.27	938.07
29	5	13.0	2.6	6,600.25	1,320.05
30	5	15.9	3.2	6,494.78	1,298.96
31	9	34.3	3.8	7,361.95	817.99
32	19	78.2	4.2	16,835.49	886.08
33	19	77.3	4.1	15,935.35	838.70
34	15	90.7	6.0	16,245.25	1,083.02
35	16	102.0	6.4	16,392.50	1,024.53
36	20	101.3	5.1	22,348.31	1,117.42
37	19	102.3	5.4	16,873.72	888.09
38	18	100.7	5.6	18,840.34	1,046.69
39	26	135.7	5.2	25,299.83	973.07
40	20	99.9	5.0	21,250.22	1,062.51
41	23	143.5	6.2	23,661.35	1,028.75
42	17	78.9	4.6	17,992.20	1,058.36
43	12	67.3	5.6	10,814.80	901.23
44	10	77.0	7.7	11,187.31	1,118.73
45	9	63.9	7.1	9,625.04	1,069.45
46	5	27.6	5.5	6,125.41	1,221.08
47	8	66.0	8.3	7,031.68	878.96
48	9	74.6	8.3	9,597.54	1,066.39
49	9	88.4	9.8	10,148.28	1,127.59
50	9	93.4	10.4	7,215.15	801.68
51	5	70.7	14.1	5,554.60	1,110.92
52	7	68.0	9.7	6,701.18	957.31
53	6	32.5	5.4	4,884.75	814.13
54	7	81.1	11.6	6,922.00	988.86
55	2	13.0	6.5	1,393.00	696.50
56	4	40.0	10.0	3,627.11	906.78
57	7	103.5	14.8	6,784.90	969.27
58	4	61.8	15.5	4,978.76	1,244.69
59	1	27.8	27.8	858.75	858.75
60	2	51.7	25.9	1,480.50	740.25
61	0	0.0	0.0	0.00	0.00
62	4	44.0	11.0	2,665.81	665.45
63	4	65.1	16.3	4,093.75	1,023.44
64	1	11.0	11.0	600.60	600.60
65	0	0.0	0.0	0.00	0.00
66	2	12.0	6.0	1,312.50	656.25
67 - 70	0	0.0	0.0	0.00	0.00
Totals and Averages	367	2,448.2	6.7	\$365,460.76	\$ 995.81

Our previous termination table was set up in five-year intervals. Table J is prepared on one-year intervals for attained age. It is derived from the experience of other large teacher retirement systems and appears to be accurate enough if we take into consideration war and postwar conditions. The table should be read as follows: Out of the group of 1,000 members age 30, 82.8 will withdraw, 3 will terminate membership by death, and .9 by disability during the year.

We have prepared a Test Table for the year 1945-46 by applying the above rates to a membership of active teachers totaling 18,759.

Assumed withdrawals are followed by actual withdrawals so that comparison may be made conveniently.

In order to determine the approximate attained age, four years were added to the entrance age. This is not, of course, exactly accurate, but is a practical approximation.

A withdrawal in this case is a teacher who has not only left the profession, but who has withdrawn her account and surrendered her Retirement Certificate. We have an additional 3,178 members who have not taught for three years, but whose accounts are still in the Teachers' Savings Fund. They are not taken into consideration in the Test Table, but will be considered as withdrawn when they have applied for and received the refund of their respective accounts. With this definition of withdrawal in mind, we compare the assumed withdrawals of 708.35 members with actual withdrawals of 1,606.

Assumed deaths according to our table for the year is 116.93 (117), whereas actual deaths reported to us are 61. It is entirely possible that a considerable number of deaths of active teachers who have, perhaps, not taught for one, two, or three years are not reported to us. Superintendents, principals, and members should report by letter to the Retirement Office the death of any teacher as soon as it comes to attention.

Withdrawals for disability prior to age fifty are included in the column "Actual Withdrawals" since these people are not eligible to retire for disability. Withdrawals for disability age 50 to 59, inclusive, are retired if such members have met the minimum requirements of 20 years of service, the last 5 of which are consecutive and immediately before retirement. Ten such members were retired for disability in 1945-46. It should be noted that assumed disabilities are much greater. Total assumed terminations by withdrawal, death and disability for the year are 942.92, while actual terminations amount to 1,677. It is favorable to the Retirement System as long as actual terminations are greater than assumed terminations. We do not anticipate any decrease in actual terminations for the ensuing five or six years.

The Test Table does not include any retired teachers, excepting the 10 retired for disability and referred to above.

As indicated in the Test Table, 61 members terminated membership by death in 1945-46 prior to retirement. Their total prior service credit was 739.9, an average of 12.1, and the average prior service salary \$869.73. Some of these deaths occurred before July 1, 1945, but were reported to us during the current year. Entrance age plus 4 is used. A few of these members had no prior service, and in those cases the first subsequent service salary was substituted for a prior service salary. If no Service Form had been filed, no prior service was counted.

Table J. Assumed Withdrawal, Death, and Disability Rates Per 1,000 Members

Age	Withdrawal	Death	Disability
20	76.5	2.2	0.5
21	85.7	2.2	0.5
22	90.6	2.2	0.5
23	93.4	2.3	0.6
24	95.3	2.4	0.6
25	96.0	2.5	0.6
26	96.0	2.6	0.7
27	94.8	2.7	0.7
28	91.8	2.8	0.7
29	87.8	2.9	0.8
30	82.8	3.0	0.9
31	76.6	3.1	1.0
32	69.8	3.2	1.1
33	62.0	3.3	1.2
34	53.0	3.4	1.3
35	42.7	3.5	1.4
36	29.2	3.6	1.6
37	20.5	3.8	1.8
38	15.4	4.0	2.0
39	12.0	4.2	2.2
40	9.6	4.4	2.5
41	8.1	4.6	2.8
42	6.7	4.8	3.2
43	5.7	5.0	3.6
44	4.8	5.3	4.2
45	4.0	5.6	4.9
46	3.3	5.9	5.8
47	2.7	6.2	6.8
48	2.3	6.5	8.1
49	1.8	6.9	9.6
50	1.5	7.3	11.2
51	1.2	7.8	12.8
52	0.9	8.3	14.4
53	0.7	8.9	16.0
54	0.5	9.7	17.6
55	0.3	10.6	19.3
56	0.2	11.6	21.2
57		13.0	23.1
58		14.8	25.1
59		16.9	27.3
60		19.3	29.8
61		21.9	32.5
62		24.8	35.4
63		28.0	38.5
64		31.5	41.8
65		35.5	45.2
66		39.8	48.7
67		44.6	52.4
68		50.0	56.6
69		56.0	61.2
70		63.3	

EXAMPLE Age 30: Out of a group of 1,000 active members, 82.8 terminate service during the year by withdrawal; 3 by death; .9 by disability.

# TEST TABLE - TERMINATION 1945-46

JULY 1, 1946

(Age of Entrance Plus 4)

Table V.

Att'd: Table VIII.A. : Withdrawal: : : Death : : : Disability: : Actual											
Age : Contributing : Rate Per : Assumed : Actual :Rate Per :Assumed: Actual : Rate Per : Assumed :Disabilities											
Approx:Members 1944-45: 1000 :Withdrawals:Withdrawals: 1000 :Deaths :Deaths : 1000 :Disabilities: Retired											
24 and											
under 1,453	93.4	135.71	125	2.3	3.34	2	.06	.87			
25 627	96.0	60.19	109	2.5	1.57	1	.06	.38			
26 567	96.0	54.43	96	2.6	1.47	1	.07	.40		Included	
27 462	94.8	43.80	88	2.7	1.25	2	.07	.32			
28 474	91.8	43.51	100	2.8	1.32	1	.07	.33		in	
29 455	87.8	39.95	77	2.9	1.32	3	.08	.36			
30 542	82.8	44.88	85	3.0	1.63	2	.09	.49		column	
31 616	76.6	47.19	88	3.1	1.91	2	1.0	.62			
32 641	69.8	44.74	68	3.2	2.05	2	1.1	.71		"Actual	
33 690	62.0	42.78	77	3.3	2.28	4	1.2	.83			
34 717	53.0	38.00	85	3.4	2.44	4	1.3	.93		Withdrawals"	
35 698	42.7	29.80	73	3.5	2.44	2	1.4	.98			
36 728	29.2	21.26	77	3.6	2.62	2	1.6	1.16		to	
37 735	20.5	15.07	47	3.8	2.79	1	1.8	1.32			
38 750	15.4	11.55	40	4.0	3.00	0	2.0	1.50		age	
39 682	12.0	8.18	44	4.2	2.86	2	2.2	1.50			
40 660	9.6	6.34	47	4.4	2.90	0	2.5	1.65		50	
41 641	8.1	5.19	26	4.6	2.95	0	2.8	1.79			
42 625	6.7	4.19	30	4.8	3.00	1	3.2	2.00			
43 531	5.7	3.03	19	5.0	2.66	0	3.6	1.91			
44 423	4.8	2.03	20	5.3	2.24	1	4.2	1.78			
45 404	4.0	1.58	23	5.6	2.21	0	4.9	1.93			
46 391	3.3	1.29	16	5.9	2.31	1	5.8	2.27			
47 328	2.7	.89	12	6.2	2.03	0	6.8	2.23			
48 317	2.3	.73	10	6.5	2.06	1	8.1	2.57			
49 309	1.8	.56	14	6.9	2.13	1	9.6	2.97			
50 330	1.5	.50	15	7.3	2.41	1	11.2	3.70		1.	
51 296	1.2	.36	11	7.8	2.31	0	12.8	3.79			
52 289	0.9	.26	11	8.3	2.40	1	14.4	4.16		2	
53 212	0.7	.15	12	8.9	1.89	2	16.0	3.39		2	
54 242	0.5	.12	3	9.7	2.35	0	17.6	4.26			
55 196	0.3	.06	11	10.6	2.08	3	19.3	3.78		1	
56 156	0.2	.03	6	11.6	1.81	0	21.2	3.31		2	

Table V. cont'd..

-2-

Att'd: Table VIII.A. : Withdrawal:		:	:	Death	:	:	Disability:	:	Actual	
Age	: Contributing	: Rate Per	: Assumed	: Actual	:Rate Per	:Assumed:	Actual	: Rate Per	: Assumed	:Disabilities
Approx:Members 1944-45:		1000	:Withdrawals:	Withdrawals:	1000	:Deaths	Deaths	: 1000	:Disabilities:	Retired
57	185			2	13.0	2.41	2	23.1	4.27	
58	162			7	14.8	2.40	0	25.1	4.07	1
59	169			3	16.9	2.86	2	27.3	4.61	1
60	145			3	19.3	2.80	5	29.8	4.32	
61	137			3	21.9	3.00	2	32.5	4.45	
62	147			6	24.8	3.65	1	35.4	5.20	
63	81			3	28.0	3.27	1	38.5	3.12	
64	128			1	31.5	4.03	1	41.8	5.35	
65	84			3	35.5	2.98	1	45.2	3.80	
66	91			3	39.8	3.62	0	48.7	4.43	
67	80			2	44.6	3.57	1	52.4	4.19	
68	74			2	50.0	3.70	1	56.6	4.19	
69	89			3	56.0	4.98	1	61.2	5.45	
70	10			0	63.3	.63	0			
Totals		18,759		708.35	1,606	116.93	61*		117.64	10

Total assumed terminations 1945-46 942.92

Total actual terminations 1945-46 1,677.

\*Does not include retired deceased

Since there were no retirements during the first two years of membership, Table VI shows some deaths after age 70 and prior to retirement. Such members would have automatically retired July 1, 1942, if such had lived.

A total of 260 deaths have been reported to the Retirement System during the first six years of operation. It is obvious that all deaths have not been reported. The average prior service credit of deceased members is 16.5 years, and the average prior service salary is \$981.20. It is significant that the prior service credit for deceased members is more than twice as great as the average prior service credit of 7 years for withdrawn members. The average prior service salary is also greater for deceased members. This indicates that the teachers lost by death while in service are among the best of our teaching staff.

In the distribution of withdrawn members as shown in Table VII for the first six years of the operation of the Retirement System the age of entrance is used. Of the 5,111 withdrawn members shown in Table VII, 1,606 withdrew in 1945-46. Of this number withdrawing in 1945-46, 1,003 had average prior service credit of 7 years and average prior service salary of \$827.99.

Of the 1,606 members withdrawing in 1945-46, 343 had filed Service Form A-2 and reported no prior service credit. Their average entrance salary is \$1,085.52. An additional 260 members withdrew who had not filed Forms A-1 or A-2 and, consequently, had no prior service credit. The average entrance salary for this group is \$891.75.

Of the number 5,111 who have withdrawn from 1940 to 1946, 1,225 held no prior service credit, while 3,886 held an aggregate of 27,093 years of prior service credit which is an average of 7 years. The aggregate prior service salary for those having prior service credit is \$3,429,642.55, and the average is therefore \$882.56.

This reduction in the obligation of the state for prior service is taken into consideration in the preparation of Table IIA.

On July 1, 1946, the Teachers' Savings Fund ledger was comprised of 27,905 accounts. Since there are approximately 18,500 membership positions in Kentucky, there remains 9,405 accounts of teachers presently not in the service. These will be placed on inactive status as and when such teachers have been absent from the profession three scholastic years.

July 1, 1944, 1,368 accounts became inactive; July 1, 1945, 1,732; and as previously stated July 1, 1946, 3,178, making a total of 6,278. This number is reduced by those who return to the service without a greater absence than six years and by those whose accounts are refunded to them upon application.

At the end of the three-year period the teacher is notified that no further interest will be credited to her account unless and until she returns actively to the service and that a further absence of three years will deprive her of her service credit; but will not deprive her of her account. More than one notice may be sent to the same teacher on successive years. According to the Retirement Act, membership expires if the absence is greater than three scholastic years, and if the teacher is still absent from the profession at the end of a ten-year period after membership expires and has not requested refund of her account, it is forfeited to the Guarantee Fund. The total number of years of absence is thirteen and, therefore, none of such accounts can be cleared from our teachers' ledger until after the system has been in operation for thirteen years.

Table VI. Members by Ages Deceased Before Retirement 1940-46

Age Group	Number	PRIOR SERVICE		SALARIES	
		Total	Average	Total	Average
18 - 20	4	2.0	.5	\$ 1,899.56	\$ 474.89
21	4	11.0	2.8	2,168.63	542.16
22	4	11.0	2.8	2,651.92	662.98
23	7	13.5	1.9	6,515.40	930.77
24	2	13.0	6.5	3,581.90	1,790.95
25	9	32.6	3.6	5,918.02	657.56
26	6	35.9	6.0	3,614.90	602.48
27	7	25.4	3.6	5,328.66	761.24
28	6	41.0	6.8	3,859.75	643.29
29	6	37.6	6.3	4,987.87	831.31
30	9	81.6	9.1	7,265.61	807.29
31	6	72.0	12.0	4,309.42	718.24
32	5	59.8	12.0	5,213.86	1,042.77
33	3	21.7	7.2	3,345.88	1,115.29
34	8	89.9	11.2	6,299.97	787.50
35	4	56.5	14.1	3,860.04	965.01
36	8	93.1	11.6	5,707.31	713.41
37	2	19.0	9.5	5,091.40	2,545.70
38	4	44.8	11.2	5,280.73	1,320.18
39	3	39.6	13.2	1,990.29	663.43
40	6	102.7	17.1	4,394.40	732.40
41	4	62.5	15.6	4,665.26	1,166.32
42	4	58.0	14.5	1,853.89	463.47
43	5	105.9	21.2	4,435.48	887.10
44	5	43.5	8.7	3,853.09	770.62
45	7	126.1	18.0	6,938.00	991.14
46	5	104.1	20.8	6,251.22	1,250.24
47	3	49.9	16.6	2,357.83	785.94
48	5	128.4	25.7	3,021.24	604.25
49	6	149.6	24.9	7,469.56	1,244.93
50	3	60.9	20.3	4,840.00	1,613.33
51	9	175.6	19.5	8,231.72	914.64
52	3	84.6	28.2	4,410.20	1,470.06
53	4	91.6	22.9	5,501.45	1,375.36
54	3	77.0	25.7	2,439.48	813.16
55	4	111.0	27.8	3,691.38	922.85
56	10	253.6	25.4	12,813.07	1,281.31
57	5	133.0	26.6	6,666.26	1,333.25
58	5	148.0	29.6	7,194.59	1,438.92
59	9	233.7	26.0	10,909.27	1,212.14
60	5	118.3	23.7	6,075.38	1,215.08
61	6	175.0	29.2	7,322.21	1,220.37
62	4	116.1	29.0	4,205.32	1,051.33
63	3	68.0	22.7	3,540.06	1,180.02
64	4	68.0	17.0	2,465.12	616.28
65	5	138.0	27.6	6,562.54	1,312.51
66	7	185.4	26.5	8,545.98	1,220.85
67	4	60.0	15.0	3,813.55	953.39
68	5	145.1	29.0	5,813.55	1,162.71
70 & over	5	120.0	24.0	5,940.82	1,188.16
Totals and Averages	260	4,294.6	16.5	\$255,113.04	\$ 981.20

Table VII. Members Who Have Withdrawn Before Retirement 1940-46

Entrance:		: Number :	: Number :	PRIOR SERVICE		SALARIES	
Without :		With :					
Age :	P. S. :	P. S. :	Total	Average	Total	Average	
18 - 20	164	164	228.2	1.4	\$ 101,821.35	\$ 620.86	
21	138	184	354.6	1.9	131,131.50	712.67	
22	96	217	494.2	2.3	169,505.06	781.13	
23	70	234	733.3	3.1	186,995.16	799.12	
24	75	263	1,032.2	3.9	211,987.21	806.04	
25	65	248	1,140.4	4.6	215,813.28	870.21	
26	44	266	1,441.6	5.4	221,149.56	831.39	
27	44	229	1,403.8	6.1	200,124.85	873.91	
28	33	206	1,448.0	7.0	185,532.87	900.65	
29	35	211	1,656.4	7.9	180,374.04	854.85	
30	54	229	1,927.7	8.4	213,426.89	932.00	
31	36	193	1,709.1	8.9	185,175.80	959.46	
32	32	180	1,741.7	9.7	171,824.37	954.58	
33	29	144	1,387.1	9.6	146,261.73	1,015.71	
34	23	128	1,317.6	10.3	134,875.24	1,053.71	
35	20	120	264.9	10.5	116,461.53	970.51	
36	29	93	981.8	10.6	100,314.65	1,078.65	
37	20	93	1,100.9	11.8	96,840.49	1,041.29	
38	23	73	785.4	10.8	79,540.46	1,089.60	
39	18	46	594.5	12.9	42,204.84	917.50	
40	21	53	571.3	10.8	48,605.94	917.09	
41	16	48	568.8	11.9	48,302.12	1,006.29	
42	14	41	510.0	12.4	43,150.88	1,052.46	
43	15	19	271.9	14.3	16,322.04	859.05	
44	10	18	209.4	11.6	16,579.32	921.07	
45	5	23	262.2	11.4	21,831.25	949.18	
46	14	23	225.8	9.8	21,222.94	922.74	
47	8	10	141.1	14.1	8,959.55	895.96	
48	6	13	121.8	9.4	13,433.90	1,033.38	
49	8	20	267.7	13.4	19,185.10	959.26	
50	5	15	241.5	16.1	10,695.45	713.03	
51	8	10	99.8	10.0	8,491.26	849.13	
52	7	15	208.0	13.9	15,179.86	1,011.99	
53	1	6	48.1	8.0	5,252.10	875.35	
54	8	11	147.8	13.4	7,935.96	721.45	
55	3	7	107.7	15.4	6,033.20	861.89	
56	4	4	42.0	10.5	2,456.00	614.00	
57	3	7	77.3	11.0	5,870.80	838.69	
58	5	6	43.6	7.3	4,182.00	697.00	
59	4	3	33.5	11.2	3,031.00	1,010.33	
60	2	3	45.0	15.0	2,000.00	1,000.00	
61	2	3	49.0	16.3	2,134.00	711.33	
62	2	2	12.3	6.1	2,880.00	1,440.00	
63	0	2	23.0	11.5	2,547.00	1,273.50	
64	2	2	16.0	8.0	825.00	412.50	
65	1	1	5.0	5.0	175.00	175.00	
68	1	0	0.0	0.0	0.00	0.00	
69	2	0	0.0	0.0	0.00	0.00	
Totals and Averages	1,225	3,886	27,093.0	7.0	\$3,429,642.55	\$ 882.56	



Table VIII. Distribution of Members Age 50 or Over by One-Year Intervals of Attained Age as of July 1, 1946

: Number :		: PRIOR SERVICE YRS. :		: PRIOR SERVICE SALARY :		: 20 but :	
Attained: of :		: Average: :		: Average: :		:less than : 30 :	
Age	Teachers	Total	Average	Total	Average	P. S.	P. S.
50	261	4,394.70	16.8	\$ 291,426.08	\$1,116.57	105	0
51	261	4,761.40	18.24	268,638.09	1,029.26	129	0
52	257	4,729.70	18.4	282,811.15	1,100.43	134	2
53	230	4,522.20	19.66	260,543.35	1,132.80	120	11
54	230	4,553.10	19.79	258,523.16	1,124.01	124	13
55	172	3,421.50	19.89	195,504.32	1,136.65	74	21
56	188	3,894.00	20.7	203,416.96	1,082.00	86	33
57	152	3,334.80	21.9	167,616.52	1,102.74	70	30
58	146	3,144.20	21.5	147,938.09	1,013.27	45	42
59	153	3,401.80	22.2	168,088.44	1,098.61	53	49
60	109	2,568.80	23.6	125,824.65	1,154.35	34	45
61	112	2,646.80	23.6	120,540.38	1,076.25	41	40
62	112	2,743.30	24.5	111,601.64	996.44	41	48
63	96	2,343.70	24.4	118,272.56	1,232.01	28	45
64	112	2,691.90	24.0	120,025.87	1,071.65	25	55
65	60	1,570.70	26.2	67,728.11	1,128.80	9	39
66	79	2,032.93	25.7	82,809.04	1,048.22	20	46
67	61	1,521.00	24.9	64,563.42	1,058.42	18	29
68	61	1,533.40	25.1	70,457.60	1,155.04	13	36
69	50	1,268.10	25.4	58,905.63	1,178.11	12	28
Totals & Averages	2,902	61,078.03	21.05	\$3,185,235.06	\$1,097.60	1,181	612

In previous reports we have included in Table VIII a distribution by entrance age of all members. We have not been able this year to tabulate this information and bring it up to date. Table VIII in our previous report for the year 1944-45 may be used. Table VIII for the current year shows a distribution of all members who have attained age 50 as of July 1, 1946. In membership at this time there are 2,902 50 years old or older. Of this number, 1,181 have 20 or more years but less than 30 years of prior service credit and 612 members have 30 years of prior service credit.

Approximately 2,000 in Table VIII are now eligible to retire for disability.

The average prior service for this group is 21.05 years and the average prior service salary is \$1,097.60.

This group of faithful teachers comprises about 16% of the teaching staff of the state at this time. Upon retirement they will be entitled to subsequent service credit from July 1, 1941, and of which practically all of them have the present maximum of 5 years. This table will be found useful in determining the obligation of the state for the prior service involved and in determining the obligation of the Retirement System for annuities payable from date of retirement during life expectancy.

Table VIIIA appearing in our report for 1944-45 is omitted for lack of space. Table VIIIA gave the number of contributing members as 18,771, aggregate salaries \$23,794,530.63, and average salary for 1944-45, \$1,267.62.

Table IX. Number of Teachers Retired and Benefits Paid  
July 1, 1942, to June 30, 1946

	: SUPERANNUATION		: DISABILITY		Total	Total	Retired	Retired
Year	Number	Benefits	Number	Benefits	Number	Benefits	Teachers	Teachers
	Retired:	Paid	Retired:	Paid	Retired:	Paid	Deceased:	Living
1942-43	232	\$ 62,439.36	14	\$ 1,426.56	246	\$ 63,865.92	58	188
1943-44	94	80,803.88	8	2,260.49	102	83,064.37	13	89
1944-45	71	101,452.30	6	2,862.12	77	104,314.42	4	73
1945-46	111	328,697.16	11	9,280.93	122	337,978.09	6	116
Total	508	\$573,392.70	39	\$15,830.10	547	\$589,222.80	81	466

Including 136 who retired July 1, 1946, there are 602 living retired teachers. Number deceased appear in Table IX.

Table X, Living Retired Teachers, shows age at retirement. Those retiring from age 50 to 59, inclusive, retired for disability. To this time the great bulk of our teachers, more than 50%, have retired at age 70. Including the annuities of teachers retired July 1, 1946, after the increases provided by the amended Retirement Law, the average is \$354.95, and the total obligation for their life expectancy is \$2,485,721.71. A considerable part of this obligation has already been liquidated in the form of annuities paid, the balance in the allowance reserve and in the balance of the reserve of those deceased after retirement.

In the fourth column of this table are the life expectancy annuity factors for each age for a 3% retirement system.

The maximum annuity for the year 1945-46 was \$720.00, and for the year 1946-47 it is \$750.00. The minimum remains \$100.00, but the minimum for a member with 30 years or more of service credit is \$300.00 under the amended Retirement Law.

For the 136 members retired July 1, 1946, the average age at retirement is 65.6, the average prior service credit 26.9 years, the average subsequent service credit 4.5 years, and the average prior service salary \$928.88. The average annuity is \$363.18 and the total amount of reserve necessary to pay these annuities during life expectancy is \$561,350.00.

Table X. Living Retired Teachers by One-Year Intervals as of Age at Retirement  
July 1, 1942, to July 1, 1946, Inclusive

Age at Retirement	: : : Number Living	: : : Average Annuity	: : : Amount Required to Pay Annuity of \$1.00	: : : Cost for Life Expectancy
50	5	\$246.00	17.84964	\$ 22,012.41
51	6	277.67	17.50283	29,160.06
52	6	281.00	17.15249	28,919.10
53	4	290.00	16.79884	19,486.65
54	3	298.96	16.44202	14,746.54
55	8	270.25	16.08243	34,770.21
56	4	281.64	15.72020	17,709.75
57	3	285.33	15.35566	13,144.29
58	3	271.33	14.98909	12,200.97
59	6	279.00	14.62080	24,475.22
60	26	304.72	14.25107	112,907.14
61	12	300.00	13.88028	49,969.01
62	13	280.23	13.50872	49,212.13
63	13	328.40	13.13677	56,083.50
64	17	321.27	12.76477	69,715.94
65	38	334.34	12.39309	157,453.22
66	24	334.45	12.02211	96,499.07
67	26	356.70	11.65224	108,065.20
68	21	340.81	11.28381	80,758.34
69	19	328.46	10.91726	68,131.78
70 or over	345	390.11	10.55296	1,420,301.18
Totals and Average	602	\$354.95		\$2,485,721.71

LEGISLATIVE

Our legislative program embodied in H. B. No. 405 was passed late in the session.

There appeared to be unanimous consent in favor of it, including the special appropriation of \$106,000.00 per year to take care of the increase in cost incident to the amendments.

Two-thirds of the living retired teachers received increases in their benefits under the \$10.00 per service credit year up to 30 years, Section 161.620, paragraph (3). Most of the retirants receiving \$100.00 per year now receive \$300.00 per year (July 1, 1946).

Members retiring for disability are also greatly helped.

Those receiving no increase seem to be satisfied, only two or three have complained.

The annual increase for teachers already retired is \$36,728.32 which is an average increase for those receiving increases of \$124.08.

Section 161.620, paragraph (1), seems to operate as expected. It is a great help in relieving the pressure to stay active to age 70. The annual increase for the 136 members retiring July 1, 1946, is \$12,903.08. The average increase for those receiving an increase in benefits is \$120.59. Those retiring under 70 in most cases received increases; and many age 70 were brought up to the \$300.00.

Since the passage of the Act, effort has been made to promulgate an understanding of the section dealing with the increases in contribution, Section 161.540.

A revision of the Retirement Law has been distributed to officials; the Handbook of Information was revised and distributed to members and many explanatory letters have been sent to officials and members.

The Kentucky Common School Laws 1946 has been distributed by the Department of Education. It is a complete revision of all statutes pertaining to Education.

There is no audible complaint from members by reason of the increased contribution under Section 161.540.

Some are filing certificates of service performed in other states, principally teachers recently coming back to Kentucky, or coming to Kentucky for the first time, and teachers planning to retire soon.

The amount required to match out-of-state contributions is so far very small.

On the whole, there is a great increase in interest since the amendments became effective.

We are grateful to a sympathetic General Assembly, its leaders, and to the Chief Executive, Governor Willis, for signing the Act into Law.

FINANCIAL

VALUATION BALANCE SHEET  
THE TEACHERS' RETIREMENT SYSTEM OF KENTUCKY  
AS OF JULY 1, 1946

A S S E T S

CURRENT ASSETS:

Cash	\$ 291,990.29	
Accounts Receivable	2.47	
Bond Investments	6,625,000.00	
Unamortized Premiums	12,679.80	
Accrued Interest on Bonds Purchased	150.27	
Furniture and Fixtures	<u>12,364.31</u>	\$ 6,942,187.14
 <u>Less, Items Outstanding</u>		
Encumbrances	\$ 2,526.47	
Due Districts (Overpayments)	<u>100.15</u>	
		<u>2,626.62</u>
Net Current Assets		<u>\$ 6,939,560.52</u>

DEFERRED ASSETS: (Present Value on 3% interest assumption, etc.)

Present Value teachers' contributions mandatory by reason of Subsequent Service, July 1, 1945 (A')		\$ 8,639,454.25
Present Value State's contributions mandatory by reason of Subsequent Service, July 1, 1945 (A'')		8,639,454.25
Indicated deficiency from members' future contributions (No covering provision in Act)		<u>1,104,182.24</u>
Deferred Assets - mandatory by reason of Subsequent Service		<u>\$18,383,090.74</u>
 Actuarial Reserve Deficiency: Deferred obligations of the Commonwealth of Kentucky.		
Present Value accrued obligation mandatory by reason of Prior Service:		
Active members	\$3,216,181.48	
Members eligible to retire	<u>725,257.46</u>	
		\$ 3,941,438.94
 Current Asset Deficiency: Present Value of accrued Prior Service obligation due retired teachers	\$1,204,203.97	
<u>Less, State's Prior Service Contribution</u>	<u>104,759.77</u>	
Net <u>Allowance Reserve Fund Deficit</u>		<u>1,099,444.20</u>
 <u>Deferred Assets - mandatory by reason of Prior Service</u>		<u>\$ 5,040,883.14</u>

TOTAL ASSETS

\$30,363,534.40

VALUATION BALANCE SHEET  
THE TEACHERS' RETIREMENT SYSTEM OF KENTUCKY  
AS OF JULY 1, 1946

L I A B I L I T I E S

CURRENT LIABILITIES:

Expense Fund	\$ 12,891.64
Teachers' Savings Fund - Accumulated Contributions	3,279,555.80
State Accumulation Fund - Accumulated Contributions	3,279,653.48
Allowance Reserve Fund	
Teachers' contributions	\$ 2,441.07
State contribution - permanent	18,001.29
State contribution -Temp.	\$1,136,092.84
Less State contribution-Def.	<u>990,293.91</u> <u>145,798.93</u>
	166,241.29
Guarantee Fund	<u>201,218.31</u>
Net Current Liabilities	\$ 6,939,560.52

DEFERRED LIABILITIES: (Present Value on 3% interest assumption, etc.)

Present Value benefits mandatory by reason of Subsequent Service active members, July 1, 1945 (B')	\$18,283,630.21
Present Value of benefits mandatory by reason of Subsequent Service, members eligible to retire, July 1, 1945 (B''')	<u>99,460.53</u>
Deferred Liabilities - mandatory by reason of Subsequent Service (B' + B''')	<u>\$18,383,090.74</u>
Present Value benefits mandatory by reason of Prior Service, July 1, 1945:	
Active members (B)	\$ 3,216,181.48
Members eligible to retire (B'')	725,257.46
Present Value benefits mandatory by reason of Prior Service - Retired teachers (B''''')	\$1,204,203.97
<u>Less, State Prior Service contributions</u>	<u>104,759.77</u>
	1,099,444.20
Deferred Liabilities - mandatory by reason of Prior Service	<u>\$ 5,040,883.14</u>
TOTAL LIABILITIES	<u><u>\$30,363,534.40</u></u>

In this Annual Report we are using the actuarial valuations last made under the old Law. It appeared to be a waste of time to re-evaluate the System under the old Law since this evaluation would be worthless after July 1, 1946.

Before our next annual report is published, a valuation balance statement will be prepared under the amended Law.

Table XI. Relation of Net Earnings to Average Interest-Bearing Assets Teachers' Retirement System  
June 30, 1946

Year	Average Interest Receiving Assets	: Earnings on Investments	: Per Cent of Average Assets	: Net Earnings Because of Refunds	: Per Cent of Average Assets	: Total Earnings	: Per Cent of Average Assets	: Interest Paid	: Surplus Remaining in Guarantee Fund
1940-41	\$ 479,071.64	\$ 5,091.96	1.06	\$ 2,229.71	0.46	\$ 7,321.67	1.52	\$ 10,463.59	3,141.92*
1941-42	1,437,845.25	23,999.54	1.66	21,736.62	1.52	45,736.16	3.18	39,874.47	5,861.69
1942-43	2,474,025.25	62,976.31	2.54	41,739.55	1.69	104,715.86	4.23	73,394.94	31,320.92
1943-44	3,574,724.34	79,202.93	2.22	50,183.11	1.40	129,386.04	3.62	101,071.17	28,314.87
1944-45	4,781,910.26	115,572.02	2.42	53,149.57	1.11	168,721.59	3.53	133,666.16	35,055.43
1945-46	5,823,612.49	163,671.56	2.81	109,377.27	1.87	273,048.83	4.68	169,241.51	103,807.32
Total									\$201,218.31

\*Deficit

The purpose of Table XI is to clarify the discussion pertaining to the fact that the Kentucky Retirement System is a 3% system. This question is raised by reason of the present interest rate on investments of 2.495%. The Teachers' Savings Fund, the State Accumulation Fund, and the Allowance Reserve Fund are each credited with three per cent compound interest according to the law. The Expense Fund and the Guarantee Fund are not credited with interest. The Retirement Law is very specific in regard to this point. Therefore, it is practical to invest the balance in the Guarantee Fund and use the earnings of the investment to augment interest out of which three per cent may be credited to the funds requiring interest.

Inactive accounts remaining in the Teachers' Savings Fund receive no interest after the third year. The proceeds of such accounts in the amount of approximately \$137,063.00 at this time are invested. This is a further help in guaranteeing 3% interest for the system because no interest is credited to such accounts while they earn approximately 2½%.

Average interest-bearing assets are found by taking fund balances on December 31 of each fiscal year. The column "Earnings on Investments" includes interest earned on investments, profits from the sale and reinvestment of securities; it is the total receipts from these sources for the full fiscal year. For the year 1945-46, it is under 3% by .19.

A surplus created in the State Accumulation Fund by reason of refunds from the Teachers' Savings Fund is transferred to the Guarantee Fund as provided by the law. Refunds at this time are quite heavy, and for the year 1945-46 amounted to 1.87% of average interest-receiving assets; therefore, the relation of receipts of the Guarantee Fund to total interest-receiving assets is 4.68%. For this reason the Retirement System did in the year 1945-46 credit interest-receiving funds with 3% and had a balance in the Guarantee Fund for the year of \$103,807.32.

The accumulated balance in the Guarantee Fund is \$201,218.31, which is as the name implies a guarantee that the system may continue to operate as long as these conditions obtain as a 3% system.

The National average of withdrawals on the basis of which our refunds are made for a normal year is .8 of 1% of interest-receiving assets. Since at present the percentage for Kentucky is 1.87, there is good reason for believing that the Kentucky Retirement System can operate as a 3% system for many years to come and, perhaps, indefinitely.



GENERAL BALANCE SHEET  
Teachers' Retirement System  
June 29, 1946

A S S E T S

Current Assets

Cash - Unencumbered	\$ 289,381.04	
Cash - Reserved for Encumbrances <sup>1</sup>	2,526.47	
Cash - On Deposit U. S. Post Office	<u>82.78</u>	
Total Cash		\$ 291,990.29
Underpayments (Due from Districts )		<u>2.47</u>
Total Current Assets		\$ 291,992.76

Fixed Assets

Investments<sup>2</sup>

U. S. Treasury 2½% Bonds	\$6,075,000.00
U. S. Defense Bonds, Series G	550,000.00
Unamortized Premium	12,679.80
Accrued Interest on Bonds Purchased	<u>150.27</u>
Total Invested	6,637,830.07

Office Equipment<sup>3</sup>

	<u>12,364.31</u>	6,650,194.38
Total Fixed Assets		

TOTAL ASSETS

\$6,942,187.14

L I A B I L I T I E S

Current Liabilities

Encumbrances Outstanding	\$ 2,526.47	
Overpayments (Due Districts)	<u>100.15</u>	
Total Liabilities		\$ 2,626.62

NET - ASSETS MINUS LIABILITIES

\$6,939,560.52

F U N D S

Balances

Expense Fund	\$ 12,891.64
Teachers' Savings Fund	3,279,555.80
State Accumulation Fund	3,279,653.48
Allowance Reserve Fund	
Teachers' Contributions	\$ 2,441.07
State Contribution - Perm.	18,001.29
State Contribution-Temp.	1,136,092.84
Less: State Contr. Def.	<u>990,293.91</u>
Net Balance	<u>145,798.93</u>
Guarantee Fund	<u>201,218.31</u>

TOTALS

\$6,939,560.52 \$6,939,560.52

<sup>1</sup>Schedule 1. (List omitted)

<sup>2</sup>Schedule 2.

<sup>3</sup>Schedule 3. (Office Equipment)

GENERAL STATEMENT OF RECEIPTS AND DISBURSEMENTS  
Teachers' Retirement System  
Fiscal Year  
1945-46

Cash Balance July 1, 1945

Cash - Unencumbered	\$	5,436.56	
Cash - Reserved for Encumbrances		<u>835.23</u>	
<b>Total</b>			\$ 6,271.79

Receipts

Teachers' Savings <sup>1</sup>	\$657,957.16		
Re-instatements	<u>1,710.26</u>		
<b>Total</b>	\$659,667.42		
Plus: Irregular Payments	<u>97.72</u>		
Net Received from Teachers		\$ 659,765.14	
State Contribution - Perm. <sup>1</sup>	\$658,004.24		
State Contribution - Temp. <sup>1</sup>	133,345.76		
State Contribution for Expenses <sup>1</sup>	<u>31,650.00</u>		
<b>Total from State</b>		823,000.00	
Interest Received on Investments		150,689.79	
U. S. Treasury Bonds Sold		445,101.56	
Gift		<u>5.00</u>	
<b>Total Receipts</b>			<u>2,078,561.41</u>
<b>Total Cash Available</b>			\$2,084,833.2

Disbursements

Office Equipment Purchased	\$	252.62	
Actuarial Service		575.00	
Board of Trustees - Meetings		222.02	
Board of Trustees - Election		392.09	
Insurance & Fidelity Bond Expense		50.00	
Investment Service		21.42	
Medical Service		64.00	
Miscellaneous Expense		240.94	
Postage		500.72	
Printing & Office Supplies		938.61	
Salaries - Regular		22,587.17	
Salaries - Extra		1,982.71	
Tel. & Tel. Expense		195.44	
Travel Expense		<u>573.46</u>	
<b>Total Current Year Expenses</b>	\$	28,596.20	
Prior Year Expenses Paid		<u>756.11</u>	
<b>Total</b>			\$ 29,352.31
Refund Claims Paid <sup>2</sup>			
Refunds - Regular	\$109,972.18		
Refunds - Special	50.64		
Refunds - Inactive	1,104.74		
Refunds - Excess	.99		
Refunds of Annuitants Deceased	395.96		
Interest Paid on Refunds	<u>1,390.35</u>		
<b>Total</b>			112,914.86

Retirement Allowances Paid <sup>3</sup>		
Superannuation	\$ 129,761.78	
Disability	<u>3,703.69</u>	
Total		\$ 133,465.47
Bonds Purchased		
U. S. Defense Bonds, Series G	\$ 100,000.00	
U. S. Treasury 2½% Bonds	<u>1,417,110.35</u>	
Total		<u>1,517,110.35</u>
Total Disbursements		<u>\$1,792,842.9</u>
Total Cash on Hand June 29, 1946		\$ 291,990.
Less: Cash on Deposit U.S. Post Office	\$ 82.78	
Cash Reserved for Encumbrances	<u>2,526.47</u>	
		<u>2,609.25</u>
Net Cash Unencumbered		<u>\$ 289,381.02</u>
<sup>1</sup> Schedule 5.		
<sup>2</sup> Schedule 6.		
<sup>3</sup> Schedule 7.		

Schedule 2  
INVESTMENTS HELD  
Teachers' Retirement System  
June 29, 1946

Name and Description	Par Value	Net Yield
U. S. Defense Bonds, Series G	\$ 550,000.00	2.50 %
U. S. Treasury 2½%, 12/15/1962-67	225,000.00	2.50 %
U. S. Treasury 2½%, 12/15/1963-68	1,000,000.00	2.50 %
U. S. Treasury 2½%, 9/15/1964-69	1,150,000.00	2.49 %
U. S. Treasury 2½%, 3/15/1965-70	700,000.00	2.50 %
U. S. Treasury 2½%, 3/15/1966-71	450,000.00	2.50 %
U. S. Treasury 2½%, 6/15/1967-72	1,150,000.00	2.50 %
U. S. Treasury 2½%, 12/15/1967-72	<u>1,400,000.00</u>	<u>2.47 %</u>
Total Par Value	\$6,625,000.00	
Unamortized Premium	12,679.80	
Accrued Interest on Bonds Purchased	<u>150.27</u>	
Total Invested	\$6,637,830.07	
Average Net Yield		2.495%

Schedule 5  
TEACHERS' SAVINGS AND STATE CONTRIBUTIONS  
Teachers' Retirement System  
June 29, 1946

Year	Teachers'	Re-instate-	S T A T E   C O N T R I B U T I O N					Total
	Savings		ments	Permanent	Temporary	For Expenses	Total	
	Regular							
1940-41	\$ 476,136.72	\$	\$ 476,089.49	\$	\$ 23,669.88	\$ 499,759.37	\$ 975,896.09	
1941-42	481,635.48	77.55	481,713.03		18,232.93	499,945.96	981,658.99	
1942-43	559,626.66	105.00	559,672.98	68,007.63	22,317.03	649,997.64	1,209,729.30	
1943-44	546,311.99	492.73	546,161.42	79,205.38	24,633.20	650,000.00	1,196,804.72	
1944-45	646,738.13	1,532.32	646,559.38	126,531.94	25,908.68	799,000.00	1,447,270.45	
1945-46	657,957.16	1,710.26	658,004.24	133,345.76	31,650.00	823,000.00	1,482,667.42	
Totals	\$3,368,406.14	\$3,917.86	\$3,368,200.54	\$407,090.71	\$146,411.72	\$3,921,702.97	\$7,294,026.97	

Schedule 6  
R E F U N D S  
Teachers' Retirement System  
June 29, 1946

Date	WITHDRAWAL		DEATH		SPECIAL		TOTAL	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1940-41	151	\$ 2,036.96	12	235.54		\$.	163	\$ 2,272.50
1941-42	738	20,231.70	38	1,878.55	2	29.32	778	22,139.57
1942-43	900	37,563.07	58	4,704.18	4	35.77	962	42,303.02
1943-44	872	46,706.43	40	4,604.58	8	127.39	920	51,438.40
1944-45	914	48,760.45	52	6,567.58	8	168.27	974	55,496.30
1945-46	1647	103,816.35	62	8,654.01	5	50.64	1714	112,521.00
Totals	5222	\$259,114.96	262	\$26,644.44	27	\$411.39	5511	\$286,170.79

Schedule 7  
Retirement Allowances Paid  
Teachers' Retirement System  
June 29, 1946  
(A)

Year	CAUSE OF RETIREMENT		Total
	Superannuation	Disability	
1942-43	\$ 62,439.36	\$ 1,426.56	\$ 63,865.92
1943-44	80,803.88	2,260.49	83,064.37
1944-45	101,452.30	2,862.12	104,314.42
1945-46	129,761.78	3,703.69	133,465.47
Totals	\$374,457.32	\$10,252.86	\$384,710.18

(B)  
Funds From Which Retirement Allowances  
Have Been Paid

Year	PAID FROM		Total
	Teachers' Contribution	State Contribution	
1942-43	\$15,791.10	\$ 48,074.82	\$ 63,865.92
1943-44	9,363.05	73,701.32	83,064.37
1944-45	14,120.62	90,193.80	104,314.42
1945-46	24,296.95	109,168.52	133,465.47
Totals	\$63,571.72	\$321,138.46	\$384,710.18

COST OF ADMINISTRATION  
Teachers' Retirement System  
July 1, 1940, to June 30, 1946

Year	Receipts of State	Administrative	Per Cent of
	Accumulation Fund	Expense	
1940-41	\$476,089.49	\$23,669.88	4.97%
1941-42	481,713.03	18,232.93	3.78%
1942-43	627,657.43	22,340.21	3.55%
1943-44	625,367.99	24,566.01	3.93%
1944-45	773,035.07	25,652.28	3.31%
1945-46	791,641.32	31,099.11	3.92%

# COMPARATIVE BALANCE SHEET

<u>ASSETS</u>	<u>June 30, 1946</u>	<u>June 30, 1945</u>	<u>June 30, 1944</u>
Cash - Unencumbered	\$ 289,381.04	\$ 5,436.56	
Cash - Encumbered	2,526.47	835.23	
Cash - On Deposit U. S. Post Office	82.78	--	
Total Cash	\$ 291,990.29	\$ 6,271.79	
Underpayments - due from District	2.47	21.40	
Investments - U. S. Treasury 2½% Bonds	\$6,075,000.00	\$5,095,000.00	
" U. S. Defense Bonds, Series G	550,000.00	450,000.00	
Unamortized Premiums	12,679.80	6,387.71	
Accrued Interest Purchased	150.27	1,451.80	
Total Invested	6,637,830.07	5,552,839.51	
Office Equipment	12,364.31	11,623.04	
Total Assets	\$6,942,187.14	\$5,570,755.74	
<u>LIABILITIES</u>			
Encumbrances Outstanding	\$ 2,526.47	\$ 836.23	
Overpayments - Due Districts	100.15	15.00	
Total Liabilities	2,626.62	850.23	
Net Fund Balance	\$6,939,560.52	\$5,569,905.51	
<u>DISTRIBUTION OF FUND BALANCE</u>			
Expense Fund (Including Equipment Inventory)	\$ 12,891.64	11,835.24	
Teachers' Savings Fund	3,279,555.80	2,675,018.36	
State Accumulation Fund	3,279,653.48	2,776,816.58*	
Allowance Reserve Fund	166,241.29	8,824.34	
Guarantee Fund	201,218.31	97,410.99	
Total Fund Balance	\$6,939,560.52	\$5,569,905.51	
Less Equipment Inventory	12,364.31	11,623.04	
Net Fund Balance	\$6,927,196.21	\$5,558,282.47	

(\*) Including State Temporary Fund \$101,804.62

SOURCE AND APPLICATION OF FUNDS

Fiscal Year Ended June 30, 1946

SOURCE OF FUNDS - ADDITIONS

Teachers Contributions (Schedule "A")		\$	659,765.14
Interest Earned on Investment (Schedule "A")			163,671.56
Gifts and Bequests (Cash Receipt)	"		5.00
Refund of Prior Year Disbursements	"		.85
Transfers From General Fund:			
Expense Fund	"	\$	31,650.00
State Accumulation Fund	"		658,004.24
State Temporary Fund	"		<u>133,345.76</u>
Total Transfers			823,000.00
Prior Year Encumbrances Canceled			335.52
Post Office Cash Fund			<u>82.78</u>
Total			<u>\$1,646,860.85</u>

APPLICATION OF FUNDS - DEDUCTIONS

Disbursements - Expense Fund	\$	28,935.38
Disbursements - Allowance Reserve Fund		112,901.84
Disbursements - Annual Allowance Payments		<u>133,479.34</u>
Total Disbursements	\$	275,316.56
Decrease in Accounts Rec. (Due from Districts)		18.93
Increase in Liabilities (Due to Districts)		85.15
Encumbrance Charges Unpaid (Exp. Fund)		<u>2,526.47</u>
Total Deductions	\$	<u>277,947.11</u>
Net Excess of Additions over Deductions		<u>\$1,368,913.74</u>

FUND SUMMARY

Fund Balance, Beginning of Year	\$5,558,282.47
Excess Additions over Deductions	<u>1,368,913.74</u>
Fund Balance - Close of Year	\$6,927,196.21

APPLICATION OF EXCESS ADDITIONS

Increase in Cash Balance	\$	285,718.50
Increase in Investments		<u>1,084,990.56</u>
Total		1,370,709.06
Decrease in Amount due from Districts	\$	18.93
Increase in Encumbrances Unpaid		<u>1,776.39</u>
		<u>1,795.32</u>
Net Fund Increase		\$1,368,913.74



SUMMARY STATEMENT OF OPERATIONS BY FUNDS

<u>Fund</u>	<u>Beginning Balance</u>	<u>ADDITIONS</u>		<u>DEDUCTIONS</u>		<u>Closing Balance</u>
		<u>Receipts</u>	<u>Transfers In</u>	<u>Disburse- ments</u>	<u>Transfers Out</u>	
Teachers Savings Fund	\$2,675,018.36	\$ 659,661.91*	\$ 82,483.50	\$ --	\$137,607.97	\$3,279,555.80
State Accumulation Fund	2,776,816.58	791,350.00	84,485.08	--	372,998.18	3,279,653.48
Allowance Reserve Fund	8,824.34	--	403,798.13	246,381.18	--	166,241.29
Guaranty Fund	97,410.99	163,676.56	111,084.37	--	170,953.61	201,218.31
Expense Fund	<u>547.72</u>	<u>31,650.00</u>	<u>--</u>	<u>31,461.85</u>	<u>291.32</u>	<u>444.55</u>
Totals	\$5,558,617.99	\$1,646,338.47	\$681,851.08	\$277,843.03	\$681,851.08	\$6,927,113.43
Add Deposit in Post Office						<u>82.78</u>
Total Closing Balance						\$6,927,196.21

(\*) Net after adjustments for accounts with districts and refunds

NOTE: Eliminating some minor self-balancing adjustments

Reconciliation Beginning Balance

Balance per Books	\$5,558,282.47
Prior Year Encumbrances Canceled	<u>335.52</u>
Total as Above	\$5,558,617.99

Frankfort, Kentucky  
August 21, 1946

Honorable Simeon Willis  
Governor of Kentucky  
Frankfort, Kentucky

Dear Governor Willis:

We submit herewith report of our audit of the Teachers' Retirement System of the State of Kentucky, for the year ended June 30, 1946.

This examination was made by W. M. Van Hoose, under my supervision.

Respectfully yours,

(Signed) C. I. Ross

C. I. Ross  
Auditor of Public Accounts

#### SCOPE OF EXAMINATION

We have examined the accounts of the Teachers' Retirement System for the fiscal year ended June 30, 1946, have reviewed the system of internal control and the accounting procedures and, without making a detailed audit of the transactions, have verified and reconciled all accounts with those of the Finance Department and the State Treasurer. We have personally inspected the investment bonds in the custody of the State Treasurer. A verification of the accuracy of Superintendents' reports of contributions was not included in the scope of our examination. Our examination of the individual teachers' ledger accounts was not of sufficient scope to prove conclusively that no irregularities exist. Subject to these qualifications and to the explanation in the comment, it is our opinion that all funds reported to the Agency have been duly accounted for.

C O M M E N T S

The Teachers' Retirement System, established as of July 1, 1940, constitutes one of the major funds of the State and is accounted for separately in the records of both the Finance Department and the Treasury Department. In both these Departments the records are based on a legal concept that the entire assets of the system constitute one major fund. As a result, the balance sheet of the Finance Department has only one account for cash, one for invested cash, and one for surplus or fund balance. This fund balance in the General Ledger, under the provisions of K.R.S. 161.420, is allotted to the various sub-funds in a subsidiary ledger as provided in that Section of Law. All receipt credits accruing to the system are credited to the one major controlling fund balance in the General Ledger and simultaneously allotted to the proper sub-fund in the subsidiary ledger.

.....

In some isolated cases, summary reports at the end of the year, including the total annual contribution of each teacher, are made. If these were made by all educational units and included annual gross salaries as well as annual contributions, they would be valuable in verifying the accuracy of the individual teachers' ledger cards as well as furnishing some check on the accuracy of the monthly reports. In the absence of such checks, and from the fact that minor discrepancies of long standing are shown by the records, some system of local auditing in respect to Superintendent's reports becomes more necessary and deserves consideration by the Board.

The schedule of bonds held shows that all investments are in U. S. Securities with a par value of \$6,625,000.00. The yield on these vary from 2.47% to 2.50% with an average of 2.495%.

An examination of the minutes of the Board meetings shows that the Executive Secretary has carried out the orders of the Board in an efficient manner, that he has furnished complete reports of all financial matters which have been approved by the Board. The completeness of the minutes and the consideration of the work of the system given by the Board deserves commendation.

NOTE: In the Auditor's comment paragraphs dealing with technical points have been omitted by the Secretary. Complete report is to be found in the Retirement Office, the Auditor's Office, and the Governor's Office.

Secretary.