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December 5, 2008

Mr. Gary L. Harbin
Executive Secretary
Teachers' Retirement System
Commonwealth of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Dear Gary:

Enclosed are 25 bound copies and one unbound copy of the "Teachers' Retirement System of the State of Kentucky Report of Actuary on the Valuation Prepared as of June 30, 2008".

Sincerely yours,

Edward A. Macdonald, ASA, FCA, MAAA
President

Edward J. Koebel

Edward J. Koebel, EA, FCA, MAAA
Senior Actuary

EAM/EJK:kc

Enclosure

S:\Kentucky Teachers\Pension\Valuations\2008\KTRS Report.doc

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144
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Teachers' Retirement System of the State of Kentucky Report of the Actuary on the Annual Valuation

Prepared as of June 30, 2008

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

December 5, 2008

Board of Trustees
Teachers' Retirement System of the
State of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Members of the Board:

Section 161.400 of the law governing the operation of the Teachers' Retirement System of the State of Kentucky provides that the actuary shall make an actuarial valuation of the System. We have submitted the results of the annual actuarial valuation prepared as of June 30, 2008. While not verifying the data at source, the actuary performed tests for consistency and reasonability. The valuation indicates that combined member and state contributions for the fiscal year ending June 30, 2011 at the rate of 26.07% of university members' salaries and 29.03% of non-university members' salaries are required to support the benefits of the System. This represents an increase since the previous valuation in the required employer contribution rate of 1.00% of payroll for the 2010/2011 fiscal year. There has been a net decrease in the expected state special appropriation from 4.28% to 4.15%, or -0.13% of payroll.

Therefore, for the 2010/2011 fiscal year, in addition to the state statutory contribution rates and the state special appropriation, there is a required increase in the employer contribution rate of 3.59%; 1.13% from this valuation and 2.46% from the previous valuation. In order to maintain the actuarial soundness of the retirement system, the entire required contributions will need to be made without any being used as a Stabilization Contribution for the Medical Insurance Fund.

The valuation takes into account the effect of amendments to the System enacted through the 2008 Session of the Legislature. Effective July 1, 2008, the System has been amended to change the benefit structure for members hired on or after that date. These plan changes will be reflected in the June 30, 2009 valuation.

The financing objective of the System is that contribution rates will remain relatively level over time as a percentage of payroll. The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the unit credit actuarial cost method with projected benefits. Five-year market related value of plan assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 4.0% annually. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System and meet the parameters for the disclosures under GASB 25 and 27.

We have prepared the trend information shown in the Schedule of Funding Progress in the Financial Section of the Annual Report and Schedule A, Schedule B, Schedule C, Solvency Test and Analysis of Financial Experience shown in the Actuarial Section of the Annual Report.

The valuation reflects that a portion of the annual required contributions to the fund have been allocated to the Medical Insurance Fund and are being repaid over time. Therefore, there is a Net Pension Obligation (NPO) under GASB 27 for the fiscal year ending June 30, 2008.

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This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

In our opinion, since a portion of the annual contributions required to fund the pension benefits have been allocated to the Medical Insurance Fund by the employer, the retirement fund is not funded by the employer on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

Respectfully submitted,

Edward A. Macdonald, ASA, FCA, MAAA
President

Edward J. Koebel
Edward J. Koebel, EA, FCA, MAAA
Senior Actuary

EAM/EJK:kc

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TEACHERS' RETIREMENT SYSTEM
OF THE STATE OF KENTUCKY
REPORT OF ACTUARY ON THE VALUATION
PREPARED AS OF JUNE 30, 2008

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below (all dollar amounts are $1,000's):

Valuation Date	June 30, 2008		June 30, 2007	
Number of active members	75,539		75,144	
Annual salaries	$ 3,190,332		$ 2,975,289	
Number of annuitants and beneficiaries	40,739		39,506	
Annual allowances	$ 1,206,812		$ 1,135,635	
Assets:				
Market value	$ 14,076,692		$ 15,421,092	
Actuarial value	$ 15,321,325		$ 15,284,955	
Unfunded actuarial accrued liability	$ 7,138,979		$ 5,970,019	
Amortization Period (years)	30		30	
	Univ.	**Non-Univ.**	**Univ.**	**Non-Univ.**
Pension Plan:				
Normal	13.45%	17.11%	13.82%	17.34%
Accrued liability	12.62	11.92	11.25	10.69
Total	26.07%	29.03%	25.07%	28.03%
Member	7.625%	9.105%	7.625%	9.105%
State (ARC)	18.445	19.925	17.445	18.925
Total	26.07%	29.03%	25.07%	28.03%
Life Insurance Fund:				
State	0.17%	0.17%	0.17%	0.17%
Medical Insurance Fund:				
Member	0.75%	0.75%	0.75%	0.75%
State Match	0.75	0.75	0.75	0.75
State Additional	0.00	0.00	0.00	0.00
Total	1.50%	1.50%	1.50%	1.50%
Total Contributions	27.74%	30.70%	26.74%	29.70%
Contribution rates for fiscal year ending:	**June 30, 2011**		**June 30, 2010**	
Member Statutory	8.375%	9.855%	8.375%	9.855%
State Statutory	11.625	13.105	11.625	13.105
Required Increase	3.59	3.59	2.46	2.46
State Special	4.15	4.15	4.28	4.28
Total	27.74%	30.70%	26.74%	29.70%

2. The valuation includes only the assets and liabilities associated with the pension plan. The valuation of the Medical Insurance Fund and the Active and Retired Life Insurance Benefits will be prepared separately.

3. The valuation indicates that combined member and State contributions at the rate of 26.07% of salaries for university members and at 29.03% for non-university members are sufficient to support the current benefits of the System. Comments on the valuation results as of June 30, 2008 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.

4. Schedule B shows the development of the actuarial value of assets. Schedule D of this report outlines the full set of actuarial assumptions and methods employed in the current valuation.

5. Provisions of the System, as summarized in Schedule E, were taken into account in the current valuation. The valuation takes into account the effect of amendments to the System enacted through the 2008 Session of the Legislature. Effective July 1, 2008, the System has been amended to change the benefit structure for members hired on or after that date. These plan changes will be reflected in the June 30, 2009 valuation.

6. All amounts shown prior to the 2004/2005 fiscal year were developed and/or reported by the prior actuarial firm.

SECTION II - MEMBERSHIP DATA

1. Data regarding the membership of the System for use as a basis of the valuation were furnished by the Retirement System office. The following table shows the number of active members and their annual salaries as of June 30, 2008 on the basis of which the valuation was prepared.

GROUP	NUMBER	ANNUAL SALARIES ($1,000's)
Full Time	57,439	$ 3,069,016
Part Time	18,100	121,316
Total	75,539	$ 3,190,332

The table reflects the active membership for whom complete valuation data was submitted. The results of the valuation were adjusted to take account of inactive members and members for whom incomplete data was submitted.

2. The following table shows the number and annual retirement allowances payable to annuitants and beneficiaries on the roll of the Retirement System as of the valuation date.

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF ANNUITANTS AND BENEFICIARIES ON THE ROLL AS OF JUNE 30, 2008

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES[1] ($1,000's)
Service Retirements	35,623	$ 1,106,145
Disability Retirements	2,155	52,960
Beneficiaries of Deceased Members	2,961	47,707
Total	40,739	$ 1,206,812

[1] Includes cost-of-living adjustments effective through July 1, 2008.

3. Table 1 of Schedule F shows a distribution by age and years of service of the number and annual salaries of active members included in the valuation, while Table 2 shows the number and annual retirement allowances of annuitants and beneficiaries included in the valuation, distributed by age.

SECTION III - ASSETS

1. As of June 30, 2008 the market value of Pension Plan assets for valuation purposes held by the System amounted to $14,076,692,181. This value excludes assets in the Medical Insurance Fund, the 403(b) Program Reserve Fund, and the Life Insurance Fund, which are not included in the assets used for Pension Plan valuation purposes.
2. The five-year market related value of Pension Plan assets used for valuation purposes as of June 30, 2008 was $15,321,325,033. Schedule B shows the development of the actuarial value of assets as of June 30, 2008.
3. Schedule C shows the receipts and disbursements for the year preceding the valuation date and a reconciliation of the asset balances for the Pension Plan.

SECTION IV - COMMENTS ON VALUATION

1. Schedule A of this report outlines the results of the actuarial valuation. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule D.
2. The valuation shows that the System has an actuarial accrued liability of $8,874,483,618 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability on account of benefits payable to annuitants and beneficiaries amounts to $13,385,235,262 of which $1,040,362,185 is for special appropriations remaining to be made toward funding minimum annuities, ad hoc increases and sick leave allowances granted after 1981. The liability for benefits expected to be paid to inactive members and to members entitled to deferred vested benefits is $200,584,896. The total actuarial accrued liability of the System amounts to $22,460,303,776. Against these liabilities, the System has present assets for valuation purposes of $15,321,325,033. When this amount is deducted from the actuarial accrued liability of $22,460,303,776, there remains $7,138,978,743 as the unfunded actuarial accrued liability.

3. The normal contribution rate is equal to the actuarial present value of benefits accruing during the current year divided by the annual active members' payroll. The normal contribution rate is determined to be 13.45% of payroll for university members and 17.11% for non-university members.

SECTION V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 161.540 of the retirement law provides that each university member will contribute 8.375% of annual salary to the System and each non-university member will contribute 9.855% of annual salary. Of this amount, 0.75% is paid to the Medical Insurance Fund for medical benefits leaving 7.625% for university members and 9.105% for non-university members applicable for the retirement benefits taken into account in the valuation.
2. Section 161.550 provides that the State will match the member contributions and contribute a supplemental 3.25% of members' salaries towards discharging the System's unfunded obligations. The System was amended as of June 30, 2000 to allow the Board to allocate up to a maximum of the entire 3.25% to the Medical Insurance Fund. **For the 2010/2011 fiscal year, we recommend that the Board allocate the entire 3.25% towards the Pension Plan.**
3. Therefore, 10.875% of active university members' salaries and 12.355% of active non-university members' salaries is funded by statute or supplemental funding for the Pension Plan and Life Insurance Fund. Of this amount, 0.17% of payroll will be allocated to the Life Insurance Fund. Based on the results of the valuation, an additional 3.59% of payroll for both university and non-university will be required in order to maintain the amortization of the unfunded liability of the Pension Plan within a 30-year period. An additional special appropriation of 4.15% of total payroll will be made by the State. The total required employer contribution rate to the Pension Plan is, therefore, 18.445% for university members and 19.925% for non-university members. The total member and employer contribution rates to the Pension Plan are shown in the following table.

CONTRIBUTION RATES BY SOURCE

	UNIVERSITY	NON-UNIVERSITY
Member		
Statutory Total	8.375%	9.855%
Statutory Medical Insurance Fund	(0.75)	(0.75)
Contribution to Pension Plan	7.625%	9.105%
Employer		
Statutory Matching Total	8.375%	9.855%
Statutory Medical Insurance Fund	(0.75)	(0.75)
Supplemental Funding	3.25	3.25
Subtotal	10.875%	12.355%
Life Insurance	(0.17)%	(0.17)%
Additional to Maintain 30-Year Amortization	3.59	3.59
Special Appropriation	4.15	4.15
Contribution to Pension Plan	18.445%	19.925%
Total Contribution to Pension Plan	26.07%	29.03%

4. The valuation indicates that normal contributions at the rate of 13.45% of active university members' salaries are required to meet the cost of benefits currently accruing. The normal rate for non-university members is 17.11%. The difference between the total contribution rate and the normal rate remains to be applied toward the liquidation of the unfunded actuarial accrued liability. This accrued liability rate is 12.62% for university members and 11.92% for non-university members. These rates include special appropriations of 4.15% of payroll to be made by the State. These rates are shown in the following table.

ACTUARIALLY DETERMINED CONTRIBUTION RATES

RATE	PERCENTAGE OF ACTIVE MEMBERS' SALARIES	
	UNIVERSITY	NON-UNIVERSITY
Normal	13.45%	17.11%
Accrued liability*	12.62	11.92
Total	26.07%	29.03%

* Includes special appropriations of 4.15% of payroll to be made by the State.

5. The unfunded actuarial accrued liability amounts to $7,138,978,743 as of the valuation date. Accrued liability contributions at the rate of 12.62% of active university members' payroll and 11.92% of non-university members' payroll are sufficient to amortize the unfunded actuarial accrued liability over a 30-year period, based on the assumption that the payroll will increase by 4.0% annually.

SECTION VI - COMMENTS ON LEVEL OF FUNDING

1. The benefit percentage for non-university members is 2.0% for service accrued through July 1, 1983 and 2.5% for service up to 30 years accrued after that date. However, for members who join the System on or after July 1, 2002 and retire with less than 10 years of service, the benefit percentage is 2.0%. For members who joined the System on or after July 1, 2002, who retire with 10 or more years of service, the benefit percentage is 2.5% for all years of service up to 30 years. For all members who retire on or after July 1, 2004, the benefit percentage for service earned in excess of 30 years is 3.0%. The total net contribution rate is 29.03% of payroll for non-university members. For university members the benefit percentage is 2.0% for all service and the contribution rate is 26.07%. Our calculations indicate that these contribution rates will be sufficient to cover the benefits of the System, the annual 1.5% increases in the allowances of retired members and beneficiaries, and the liabilities for minimum annuities, ad hoc increases and sick leave allowances granted after 1981. Effective July 1, 2008, the System has been amended to change the benefit structure for members hired on or after that date. These plan changes will be reflected in the June 30, 2009 valuation.
2. The valuation indicates that the present statutory contribution rates, supplemental funding and special appropriations, if continued at the current level percentage, along with an additional required contribution of 3.59%, not currently provided in statute, are sufficient to meet the cost of benefits currently accruing and provide for the amortization of the unfunded actuarial accrued liability over a period of 30 years. However, as existing special contributions expire, the statutory contributions or supplemental funding will be required to increase as an equal percentage of payroll, in order to amortize the unfunded liability within a period of 30 years.

3. Since the 2005 fiscal year, a portion of the contributions required for the pension fund have been allocated as loans to the Medical Insurance Fund for Stabilization Funding. Payments are being made to repay these loans, but the borrowing is expected to continue in the future. The following table shows the amounts borrowed, annual payments and remaining balances as of June 30, 2008:

MEDICAL INSURANCE FUND
STABILIZATION FUNDING

	Loan Amount	Annual Payment	Balances as of July 1, 2008
2004/2005	$29,169,700	$4,249,600	$22,508,563
2005/2006	62,294,800	9,075,500	53,157,766
2006/2007	73,000,000	10,207,400	64,341,800
2007/2008	125,000,000	18,280,000	125,000,000
Total	$289,464,500	$41,812,500	$265,008,129

4. There are no excess assets or contributions available to provide additional benefits, and there is a cumulative increase in the required employer contribution of 3.59% of payroll for the fiscal year ending June 30, 2011, as shown in the following table:

Valuation Date	Fiscal Year	Increase	Cumulative Increase
June 30, 2004	June 30, 2007	0.11%	0.11%
June 30, 2005	June 30, 2008	1.21	1.32
June 30, 2006	June 30, 2009	0.56	1.88
June 30, 2007	June 30, 2010	0.58	2.46
June 30, 2008	June 30, 2011	1.13	3.59

In addition, as existing special contributions expire, the statutory contributions or supplemental funding will be required to increase as an equal percentage of payroll, in order to amortize the unfunded liability within 30 years. Any further benefit improvements must be accompanied by the entire additional contributions necessary to support the benefits.

SECTION VII – ANALYSIS OF FINANCIAL EXPERIENCE

The following table shows the estimated gain or loss from various factors that resulted in an increase of $1,168,959,470 in the unfunded accrued liability from $5,970,019,273 to $7,138,978,743 during the year ending June 30, 2008.

ANALYSIS OF FINANCIAL EXPERIENCE
(Dollar amounts in thousands)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50%) added to previous unfunded accrued liability	$ 447,751
Expected Accrued liability contribution	(299,751)
Contributions allocated to the Medical Insurance Fund (MIF) for Stabilization Funding during 2006/2007 fiscal year with interest	129,398
Repayment of prior year's MIF Stabilization Funding with interest	(28,488)
Experience:	
Valuation asset growth	668,626
Pensioners' mortality	9,428
Turnover and retirements	(26,001)
New entrants	57,003
Salary increases	210,993
Amendments	0
Assumption and method changes	0
Total	$ 1,168,959

SECTION VIII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

NUMBER OF ACTIVE AND RETIRED MEMBERS
AS OF JUNE 30, 2008

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	40,739
Terminated employees entitled to benefits but not yet receiving benefits	4,861
Active plan members	75,539
Total	121,139

2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS
(Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Projected Unit Credit (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
6/30/2003	$13,863,786	$16,594,781	$2,730,995	83.5%	$2,497,731	109.3%
6/30/2004	14,255,131	17,617,626	3,362,495	80.9	2,641,533	127.3
6/30/2005	14,598,843	19,134,870	4,536,027	76.3	2,703,430	167.8
6/30/2006 *	14,857,641	20,324,781	5,467,140	73.1	2,859,477	191.2
6/30/2007	15,284,955	21,254,974	5,970,019	71.9	2,975,289	200.7
6/30/2008	15,321,325	22,460,304	7,138,979	68.2	3,190,332	223.8

* Reflects change in decremental assumptions.

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2008. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2008
Actuarial cost method	Projected unit credit
Amortization method	Level percent of pay, open
Remaining amortization period	30 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of Return*	7.50%
Projected salary Increases*	4.00 - 8.20%
Cost-of-living adjustments	1.50% Annually
*Includes inflation at	4.00%

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	Annual Required Contributions	Percentage Contributed
2003	$322,046,968	100%
2004	364,351,412	100
2005	383,776,826	100
2006	406,107,266	100
2007	494,565,369	85
2008	563,789,483	78

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2008:

Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending June 30, 2008

(a)	Employer annual required contribution	$	563,789,483
(b)	Interest on net pension obligation		11,205,780
(c)	Adjustment to annual required contribution		35,445,598
(d)	Annual pension cost: (a) + (b) - (c)	$	539,549,665
(e)	Employer contributions made for fiscal year ending June 30, 2008		438,789,483
(f)	Increase (decrease) in net pension obligation: (d) - (e)	$	100,760,182
(g)	Net pension obligation beginning of fiscal year		149,410,401
(h)	Net pension obligation end of fiscal year: (f) + (g)	$	250,170,583

TREND INFORMATION

Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation (NPO)
June 30, 2006	$406,107,266	100%	$0
June 30, 2007	476,544,275	88	149,410,401
June 30, 2008	539,549,665	81	250,170,583

SCHEDULE A

RESULTS OF THE VALUATION
PREPARED AS OF JUNE 30, 2008
($1,000's)

1.	**ACTUARIAL ACCRUED LIABILITY**		
	Present value of prospective benefits payable in respect of:		
	(a) Present active members		
	- Service retirement benefits	$ 8,281,186	
	- Disability retirement benefits	374,926	
	- Death and survivor benefits	68,878	
	- Refunds of member contributions	149,494	
	Total		$ 8,874,484
	(b) Present inactive members and members entitled to deferred vested benefits:		200,585
	(c) Present annuitants and benficiaries:		
	- Service retirement benefits	$ 12,525,471	
	- Disability retirement benefits	426,776	
	- Death and survivor benefits	432,988	
	Total		$ 13,385,235
	(d) Total actuarial accrued liability		$ 22,460,304
2.	**PRESENT ASSETS FOR VALUATION PURPOSES**		$ 15,321,325
3.	**UNFUNDED ACTUARIAL ACCRUED LIABILITY [1(d) - 2]**		$ 7,138,979
4.	**NORMAL CONTRIBUTION RATE**	**UNIVERSITY**	**NON-UNIVERSITY**
	(a) Actuarial present value of benefits accruing annually	$ 25,967	$ 512,772
	(b) Annual payroll of active members	$ 193,007	$ 2,997,325
	(c) Normal contribution rate [(4(a) / 4(b)]	13.45%	17.11%

SCHEDULE A

(continued)

SOLVENCY TEST
(in millions of dollars)

Fiscal Year Ending	(1) Active Member Contributions	(2) Retirants And Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
6/30/2003	$2,413.9	$9,329.3	$4,851.6	$13,863.8	100%	100%	44%
6/30/2004	2,546.1	9,906.2	5,165.3	14,255.1	100	100	35
6/30/2005	2,621.3	11,370.4	5,143.2	14,598.8	100	100	12
6/30/2006	2,615.8	12,216.6	5,492.4	14,857.6	100	100	0
6/30/2007	2,762.8	12,843.7	5,648.5	15,285.0	100	97	0
6/30/2008	2,899.0	13,585.8	5,975.5	15,321.3	100	91	0

SCHEDULE B

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
AS OF JUNE 30, 2008

(1)	Actuarial Value of Assets Beginning of Year	$	15,286,452,192	*
(2)	Market Value of Assets End of Year	$	14,076,692,181	
(3)	Market Value of Assets Beginning of Year	$	15,422,590,096	*
(4)	Cash Flow			
	a. Contributions	$	757,671,730	
	b. Benefit Payments		1,186,934,184	
	c. Administrative Expense		7,551,936	
	d. Net: (4)a - (4)b - (4)c	$	(436,814,390)	
(5)	Investment Income			
	a. Market total: (2) - (3) - (4)d	$	(909,083,525)	
	b. Assumed Rate		7.50%	
	c. Amount for Immediate Recognition:			
	[(3) x (5)b] + [(4)d x (5)b x 0.5]	$	1,140,313,718	
	d. Amount for Phased-In Recognition: (5)a - (5)c	$	(2,049,397,243)	
(6)	Phased-In Recognition of Investment Income			
	a. Current Year: 0.20 x (5)d	$	(409,879,449)	
	b. First Prior Year		190,240,386	
	c. Second Prior Year		(75,996,339)	
	d. Third Prior Year		(23,843,540)	
	e. Fouth Prior Year		(349,147,545)	
	f. Total Recognized Investment Gain	$	(668,626,487)	
(7)	Actuarial Value of Assets End of Year:			
	(1) + (4)d + (5)c + (6)f	$	15,321,325,033	
(8)	Difference Between Market & Actuarial Values: (2) - (7)	$	(1,244,632,852)	

* Adjusted since previous valuation.

SCHEDULE C

PENSION PLAN ASSETS
SUMMARY OF RECEIPTS AND DISBURSEMENTS*
(Market Value)

	For the Year Ending	
	June 30, 2008	June 30, 2007
Receipts for the Year		
Contributions		
Members	$ 291,423,948	$ 269,687,864
Employers	466,247,782	434,890,468
Total	$ 757,671,730	$ 704,578,332
Net Investment Income	(909,083,525)	2,057,397,493
TOTAL	$ (151,411,795)	$ 2,761,975,825
Disbursements for the Year		
Benefit Payments	$ 1,170,969,101	$ 1,102,538,879
Refunds to Members	15,965,083	14,822,827
Medical Insurance Payments	0	0
Miscellaneous, including expenses	7,551,936	7,351,846
TOTAL	$ 1,194,486,120	$ 1,124,713,552
Excess of Receipts over Disbursements	$ (1,345,897,915)	$ 1,637,262,273
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of the Year	$ 15,422,590,096 **	$ 13,783,830,173
Excess of Receipts over Disbursements	(1,345,897,915)	1,637,262,273
Asset Balances as of the End of the Year	$ 14,076,692,181	$ 15,421,092,446

* Excludes assets for Medical Insurance Fund, the 403(b) Program Reserve Fund and the Life Insurance Fund.

** Adjusted since previous valuation.

SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2005, submitted to and adopted by the Board on September 18, 2006.

INVESTMENT RATE OF RETURN: 7.5% per annum, compounded annually.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.0% per annum:

Age	Annual Rate
20	8.10%
25	7.20
30	6.20
35	5.50
40	5.00
45	4.70
50	4.50
55	4.30
60	4.20
65	4.00

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

Males

	Annual Rate of						
			WITHDRAWAL			RETIREMENT	
			Service			Before 27 Years of Service	After 27 Years of Service*
Age	DEATH	DISABILITY	0 – 4	5 – 9	10+		
20	0.003%	0.01%	9.00%				
25	0.010%	0.01%	9.00%	1.50%			
30	0.016%	0.02%	9.00%	3.00%	3.00%		
35	0.032%	0.05%	10.00%	3.25%	1.50%		
40	0.048%	0.08%	10.00%	3.75%	1.50%		
45	0.064%	0.22%	9.50%	2.50%	1.50%		25.0%
50	0.104%	0.42%	10.00%	4.00%	3.00%		20.0%
55	0.216%	0.60%	11.00%	3.00%	2.70%	6.0%	35.0%
60	0.375%	0.79%	11.00%	3.00%	2.70%	14.0%	25.0%
62	0.438%	0.83%	11.00%	3.00%	2.70%	14.0%	23.0%
65	0.566%	0.90%	11.00%	3.00%	2.70%	22.5%	35.0%
70	0.905%	0.00%	0.00%	0.00%	0.00%	100.0%	100.0%

*Plus 5% before age 55 and 15% after age 55 in year when first eligible for unreduced retirement with 27 years of service.

Females

Age	DEATH	DISABILITY	WITHDRAWAL Service 0 – 4	WITHDRAWAL Service 5 – 9	WITHDRAWAL Service 10+	RETIREMENT Before 27 Years of Service	RETIREMENT After 27 Years of Service*
20	0.002%	0.03%	6.00%				
25	0.007%	0.03%	8.50%	3.00%			
30	0.014%	0.04%	9.00%	4.00%	1.50%		
35	0.026%	0.11%	8.50%	4.00%	2.00%		
40	0.044%	0.22%	8.50%	2.50%	1.50%		
45	0.055%	0.38%	7.00%	2.50%	1.50%		25.0%
50	0.066%	0.44%	8.50%	3.00%	2.25%		20.0%
55	0.085%	0.56%	10.00%	3.50%	2.50%	7.5%	35.0%
60	0.122%	0.85%	11.00%	3.50%	2.50%	16.5%	30.0%
62	0.137%	0.85%	11.00%	3.50%	2.50%	12.5%	25.0%
65	0.159%	0.85%	11.00%	3.50%	2.50%	26.0%	30.0%
70	0.195%	0.00%	0.00%	0.00%	0.00%	100.0%	100.0%

*Plus 5% before age 55 and 20% after age 55 in year when first eligible for unreduced retirement with 27 years of service.

DEATHS AFTER RETIREMENT: According to the 1994 Group Annuity Mortality Table for the period after service retirement. Special rates are used for the period after disability retirement. Representative values of the assumed annual rates of death after service and disability retirement are as follows:

Age	Annual Rate of Death After Service Retirement Male	Service Retirement Female	Disability Retirement Male	Disability Retirement Female
45	0.1578%	0.0973%	6.500%	6.500%
50	0.2579	0.1428	10.000	10.000
55	0.4425	0.2294	10.000	10.000
60	0.7976	0.4439	9.000	9.000
65	1.4535	0.8636	10.000	10.000
70	2.3730	1.3730	6.500	4.500
75	3.7211	2.2686	7.000	6.000
80	6.2027	3.9396	10.000	6.500
85	9.7240	6.7738	12.500	7.500
90	15.2931	11.6265	15.000	17.500
95	23.3606	18.6213	23.368	31.702

ACTUARIAL METHOD: Unit Credit Actuarial Cost Method with projected benefits. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

ASSETS: Five-year market related actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the assumed valuation rate of return of 7.50%. The amount recognized each year is 20% of the difference between market value and expected actuarial value.

EXPENSE LOAD: None.

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

LOADS: Unused sick leave: 1% of active liability

SCHEDULE E

SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

The Teachers' Retirement System of the State of Kentucky was established on July 1, 1940. The valuation took into account amendments to the System effective through June 30, 2008. Effective July 1, 2008, the System has been amended to change the benefit structure for members hired on or after that date. These plan changes will be reflected in the June 30, 2009 valuation. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 - DEFINITIONS

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

2 - BENEFITS

Service Retirement Allowance

Condition for Allowance	Completion of 27 years of service or attainment of age 55 and 5 years of service.
Amount of Allowance	The annual retirement allowance for non-university members is equal to: (a) 2.0% of final average salary multiplied by service before July 1, 1983, plus (b) 2.5% of final average salary multiplied by service after July 1, 1983. (c) For individuals who become members of the Retirement System on or after July 1, 2002 and have less than 10 years of service at retirement, the retirement allowance is 2.0% of final average salary multiplied by service. If, however, they have 10 or more years, they receive a benefit percentage of 2.5% for all years of service up to 30 years.

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

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

For all members, the annual allowance is reduced by actuarial equivalent factors from the earlier of age 60 or the date the member would have completed 27 years of service.

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

Disability Retirement Allowance

Condition for Allowance	Totally and permanently incapable of being employed as a teacher and under age 60 but after completing 5 years of service.
Amount of Allowance	The disability allowance is equal to the greater of the service retirement allowance or 60% of the member's final average salary. The disability allowance is payable over an entitlement period equal to 25% of the service credited to the member at the date of disability or five years, whichever is longer. After the disability entitlement period has expired and if the member remains disabled, he will be retired under service retirement. The service retirement allowance will be computed with service credit given for the period of disability retirement. The allowance will not be less than $6,000 per year. The service retirement allowance will not be reduced for commencement of the allowance before age 60 or the completion of 27 years of service.
Benefits Payable on Separation from Service	Any member who ceases to be in service is entitled to receive his contributions with allowable interest. A member who has completed 5 years of creditable service and leaves his contributions with the System may be continued in the membership of the System after separation from service, and file application for service retirement after the attainment of age 60.
Life Insurance	A separate Life Insurance fund has been created as of June 30, 2000 to pay benefits on behalf of deceased KTRS active and retired members.

Death Benefits

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

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

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

Number of Children	Annual Allowance
1	$ 2,400
2	4,080
3	4,800
4 or more	5,280

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

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

Options

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

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

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

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

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

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

Post-Retirement Adjustments

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

3 - CONTRIBUTIONS

Member Contributions

University members contribute 8.375% of salary of which 7.625% is contributed to the Retirement System and 0.75% is contributed to the Medical Insurance Fund. Non-university members contribute 9.855% of salary of which 9.105% is contributed to the Retirement System and 0.75% is contributed to the Medical Insurance Fund. Member contributions are picked up by the employer.

SCHEDULE F

TABLE 1
AGE – SERVICE TABLE

Distribution of Active Members as of June 30, 2008 by Age and Service Groups

Attained Age	Completed Years of Service								
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	>= 35	Total
24 & under	2,733								2,733
Total Pay	40,156,278								40,156,278
Avg. Pay	14,693								14,693
25 to 29	7,737	1,244							8,981
Total Pay	226,985,257	55,162,946							282,148,203
Avg. Pay	29,338	44,343							31,416
30 to 34	3,824	4,651	716						9,191
Total Pay	109,014,464	215,186,990	38,055,186						362,256,640
Avg. Pay	28,508	46,267	53,150						39,414
35 to 39	3,127	2,701	3,741	696					10,265
Total Pay	82,804,226	126,588,449	206,390,005	41,204,804					456,987,484
Avg. Pay	26,480	46,867	55,170	59,202					44,519
40 to 44	3,884	1,592	1,836	2,585	626				10,523
Total Pay	76,518,540	76,734,470	101,966,614	155,651,263	38,970,337				449,841,224
Avg. Pay	19,701	48,200	55,537	60,213	62,253				42,748
45 to 49	1,942	1,311	1,290	1,398	2,226	583			8,750
Total Pay	48,048,107	64,439,406	72,824,251	85,020,118	140,513,875	38,127,851			448,973,608
Avg. Pay	24,742	49,153	56,453	60,816	63,124	65,399			51,311
50 to 54	1,808	1,107	1,179	1,318	1,388	1,643	639		9,082
Total Pay	37,799,289	55,399,696	67,881,950	80,824,830	90,155,860	109,389,413	43,184,738		484,635,776
Avg. Pay	20,907	50,045	57,576	61,324	64,954	66,579	67,582		53,362
55 to 59	2,991	775	918	1,086	1,107	762	826	124	8,589
Total Pay	52,396,113	40,966,577	53,795,878	68,408,653	72,964,249	53,284,559	62,979,695	10,384,836	415,180,560
Avg. Pay	17,518	52,860	58,601	62,991	65,912	69,927	76,247	83,749	48,339
60 to 64	2,539	380	368	459	505	278	129	133	4,791
Total Pay	37,225,994	20,763,246	23,223,662	29,893,634	34,749,706	20,422,141	10,455,098	11,722,331	188,455,812
Avg. Pay	14,662	54,640	63,108	65,128	68,811	73,461	81,047	88,138	39,335
65 & over	2,022	102	86	97	126	67	54	80	2,634
Total Pay	19,805,734	5,623,767	5,460,182	6,432,333	8,488,526	4,896,583	4,198,098	6,791,435	61,696,658
Avg. Pay	9,795	55,135	63,490	66,313	67,369	73,083	77,743	84,893	23,423
Total	32,607	13,863	10,133	7,639	5,978	3,333	1,649	337	75,539
Total Pay	730,754,002	660,865,547	569,597,728	467,435,635	385,842,553	226,120,547	120,817,629	28,898,602	3,190,332,243
Avg. Pay	22,411	47,671	56,212	61,191	64,544	67,843	73,267	85,753	42,234

Average Age: 43.3 Average Service: 10.4

SCHEDULE F

TABLE 2

NUMBER OF RETIRED MEMBERS AND BENEFICIARIES AND THEIR BENEFITS BY AGE

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
49 & Under	770	$ 8,775,677	$ 11,397
50 - 54	1,588	50,193,641	31,608
55 - 59	6,907	243,164,138	35,205
60 - 64	9,456	315,956,441	33,413
65 - 69	7,319	229,752,845	31,391
70 - 74	5,032	143,385,189	28,495
75 - 79	3,849	99,163,829	25,764
80 & Over	5,818	116,420,533	20,010
Total	40,739	$ 1,206,812,293	$ 29,623

SCHEDULE F

TABLE 3

SCHEDULE OF RETIRANTS, BENEFICIARIES AND SURVIVORS ADDED TO AND REMOVED FROM ROLLS

	ADDED TO ROLLS		REMOVED FROM ROLLS		ROLLS AT END OF YEAR			
Year Ended	Number	Annual Allowances (in millions)	Number	Annual Allowances (in millions)	Number	Annual Allowances (in millions)	Increase in Annual Allowances	Average Annual Allowance
1999	2,415	$73.9	998	$13.9	29,161	$554.0	12.1%	$19,000
2000	2,462	79.2	1,008	14.1	30,615	619.2	11.8	20,226
2001	2,410	77.0	1,128	16.5	31,897	679.8	9.8	21,311
2002	2,577	86.2	1,063	16.8	33,408	749.2	10.2	22,425
2003	2,252	86.7	1,015	16.9	34,645	819.0	9.3	23,641
2004	2,126	85.4	1,033	17.5	35,738	887.0	8.3	24,819
2005	2,644	105.1	1,036	18.9	37,346	973.1	9.7	26,058
2006	2,266	121.1	1,115	20.0	38,497	1,074.2	10.4	27,902
2007	2,050	82.1	1,041	20.7	39,506	1,135.6	5.7	28,746
2008	2,183	90.6	950	19.4	40,739	1,206.8	6.3	29,623