



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve



**Teachers' Retirement System
of the State of Kentucky
Report of the Actuary on the
Annual Valuation of the
Retiree Medical and Life
Insurance Plans**

Prepared as of June 30, 2011





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

December 16, 2011

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

Members of the Board:

Governmental Accounting Standards Board Statements No. 43 and 45 require the Teachers' Retirement System of the State of Kentucky (the System) to conduct actuarial valuations of the System's retiree medical and other post employment benefit plans. This report covers the Medical Insurance Fund and OPEB liabilities related to the Life Insurance Fund. Cavanaugh Macdonald Consulting, LLC (CMC) has submitted the results of the annual actuarial valuation prepared as of June 30, 2011. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates a total annual required contribution of 6.95% of active member payroll for the Medical Insurance Fund payable for the fiscal year ending June 30, 2014 is required to support the benefits of the Kentucky Employees' Health Plan (KEHP) and the Medicare Eligible Health Plan (MEHP). Of this amount, 1.75% of payroll is estimated to be paid by University members entering the System prior to July 1, 2008 and 2.25% of payroll is estimated to be paid by all other members, leaving 5.20% and 4.70% respectively, as the remaining annual required contribution. This annual required contribution reflects the assets currently held in the Medical Insurance Fund and an 8.00% discount rate for valuing liabilities.

Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2010. These revised changes were adopted by the Board on September 19, 2011. Effective January 1, 2012, the KTRS MEHP will join the Kentucky Rx Coalition administered by Express Scripts in order to facilitate a more cost effective prescription drug plan for Medicare eligible retirees.

The Life Insurance Fund valuation indicates a total annual required contribution of 0.03% of active member payroll payable for the fiscal year ending June 30, 2014 is required to support the benefits of the Life Insurance Fund. As contributions to the Life Insurance Fund meet the required levels, the discount rate for valuing liabilities is 7.50%.



Board of Trustees
December 16, 2011
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The promised benefits of the medical and life insurance plans are included in the actuarially calculated contribution rates which are developed using the entry age normal actuarial cost method. The market 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 aggregate reasonably related to the experience under the medical and life insurance plans and to reasonable expectations of anticipated experience under the medical and life insurance plans and meet the parameters for the disclosures under GASB 43 and 45.

CMC has prepared the trend information shown in the Schedule of Funding Progress in the Financial Section of the Annual Report and Section VII shown in the Actuarial Section of the Annual Report.

This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries and have 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 medical and life insurance plans and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the plans.

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, if the State contributions to the Medical Insurance Fund are increased to the planned levels, the medical plans will begin to operate in a more actuarially sound basis. Assuming that required contributions to the Medical Insurance Fund are made by the employer from year to year in the future at the levels required on the basis of the successive actuarial valuations, the actuarial soundness of the Medical Insurance Fund to provide the benefits called for under the medical plans will improve.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Eric Gary'.

Eric Gary, FSA, FCA, MAAA
Senior Actuary

A handwritten signature in blue ink, appearing to read 'Alisa Bennett'.

Alisa Bennett, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

EG/AB:lb



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**TEACHERS' RETIREMENT SYSTEM
OF THE STATE OF KENTUCKY
REPORT OF THE ACTUARY ON THE ANNUAL VALUATION
OF THE RETIREE MEDICAL AND LIFE INSURANCE PLANS
PREPARED AS OF JUNE 30, 2011**

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:

MEDICAL INSURANCE FUND
(Dollar amounts in \$1,000's)

Valuation Date	June 30, 2011	June 30, 2010
Number of active members	76,349	76,387
Annual salaries	\$ 3,451,756	\$ 3,321,614
Number of vested former members	3,485	3,412
Number of annuitants in medical plans	35,033	34,315
Number of spouses and beneficiaries in medical plans*	<u>6,922</u>	<u>6,834</u>
Total	41,955	41,149
Assets:		
Market value	\$ 294,819	\$ 241,224
Unfunded actuarial accrued liability	\$ 3,128,330	\$ 2,965,582
Amortization period (years)	30	30
Discount rate	8.00%	8.00%

*Spouses of post-65 retirees, as well as surviving spouses of deceased retirees, pay 100% of the full contribution. 100% of the full contribution for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State.



MEDICAL INSURANCE FUND CONTRIBUTION RATES FOR UNIVERSITY MEMBERS

Valuation Date	June 30, 2011		June 30, 2010	
Contribution for fiscal year ending:	June 30, 2014		June 30, 2013	
	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08
Normal	2.00%	2.00%	2.32%	2.32%
Accrued liability	<u>4.95%</u>	<u>4.95%</u>	<u>4.88%</u>	<u>4.88%</u>
Total	6.95%	6.95%	7.20%	7.20%
Member	1.75%	1.75%	1.43%	1.75%
Employer (ARC)	1.75%	0.75%	1.43%	0.75%
State (ARC)	<u>3.45%</u>	<u>4.45%</u>	<u>4.34%</u>	<u>4.70%</u>
Total	6.95%	6.95%	7.20%	7.20%

MEDICAL INSURANCE FUND CONTRIBUTION RATES FOR SCHOOL DISTRICT EMPLOYEES (NON-FEDERAL)

Valuation Date	June 30, 2011		June 30, 2010	
Contribution for fiscal year ending:	June 30, 2014		June 30, 2013	
	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08
Normal	2.00%	2.00%	2.32%	2.32%
Accrued liability	<u>4.95%</u>	<u>4.95%</u>	<u>4.88%</u>	<u>4.88%</u>
Total	6.95%	6.95%	7.20%	7.20%
Member	2.25%	2.25%	1.75%	1.75%
Employer (ARC)	1.50%	1.50%	1.00%	1.00%
State (ARC)	<u>3.20%</u>	<u>3.20%</u>	<u>4.45%</u>	<u>4.45%</u>
Total	6.95%	6.95%	7.20%	7.20%



MEDICAL INSURANCE FUND CONTRIBUTION RATES FOR OTHER EMPLOYEES

Valuation Date	June 30, 2011		June 30, 2010	
Contribution for fiscal year ending:	June 30, 2014		June 30, 2013	
	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08
Normal	2.00%	2.00%	2.32%	2.32%
Accrued liability	<u>4.95%</u>	<u>4.95%</u>	<u>4.88%</u>	<u>4.88%</u>
Total	6.95%	6.95%	7.20%	7.20%
Member	2.25%	2.25%	1.75%	1.75%
Employer (ARC)	2.25%	1.25%	1.75%	0.75%
State (ARC)	<u>2.45%</u>	<u>3.45%</u>	<u>3.70%</u>	<u>4.70%</u>
Total	6.95%	6.95%	7.20%	7.20%

LIFE INSURANCE FUND
(Dollar amounts in \$1,000's)

Valuation Date	June 30, 2011	June 30, 2010
Number of active members	76,349	76,387
Annual salaries	\$ 3,451,756	\$ 3,321,614
Number of vested former members	3,485	3,412
Number retirees in Life Insurance Plan	41,118	39,951
Assets:		
Market value	\$ 88,527	\$ 87,905
Unfunded actuarial accrued liability*	\$ (439)	\$ 4,186
Amortization period (years)	30	30
Discount rate	7.50%	7.50%
Contribution for fiscal year ending:	June 30, 2014	June 30, 2013
Normal	0.03%	0.04%
Accrued liability	<u>0.00%</u>	<u>0.01%</u>
Total	0.03%	0.05%

* Includes liability for death in active service. This amount could be segregated from the OPEB liability and assets could be split for active and post employment purposes. However, since this could be administratively burdensome and since death in active service liabilities can be considered de minimis, it is acceptable to consider the entire liability an OPEB liability under GASB 43 and 45.



2. The valuation indicates combined member, employer, and State contributions of 6.95% of active member payroll would be sufficient to support the current benefits of the medical plans and State contributions of 0.03% of active member payroll would be sufficient to support the current benefits of the life insurance plan. Comments on the valuation results as of June 30, 2011 are given in Section IV and further discussion of the contribution levels is set out in Sections VI and VII.
3. Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2010. These revised changes were adopted by the Board on September 19, 2011. Schedule C of this report outlines the full set of actuarial assumptions and methods employed in the current valuation.
4. There were no changes in benefit provisions since the last valuation. However, the prescription drug provider for the Medicare eligible plan has changed and plan designs have changed for the Health Insurance plans that cover non-Medicare eligible retirees. The changes are summarized below.
 - Effective January 1, 2012, the KTRS MEHP will join the Kentucky Rx Coalition administered by Express Scripts in order to facilitate a more cost effective prescription drug plan for Medicare eligible retirees.
 - Plan design changes have also been implemented for Plan Year 2012 for the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky.



SECTION II - MEMBERSHIP DATA

1. Data regarding the membership of the medical and life insurance plans for use as a basis of the valuation were furnished by the System's office. The following tables summarize the membership of the System as of June 30, 2011, upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

ACTIVE MEMBERS AS OF JUNE 30, 2011

Group	Number	Annual Salaries (\$1,000's)
Full Time	59,089	\$ 3,337,547
Part Time	<u>17,260</u>	<u>114,209</u>
Total	76,349	\$ 3,451,756

The following tables show the number of retired members and their beneficiaries receiving health care as of the valuation date as well as average ages.

RETIREES RECEIVING HEALTH BENEFITS AS OF JUNE 30, 2011

	Under 65	Over 65	Total
Number	15,557	19,476	35,033
Average Age	60.3	74.8	68.4

SPOUSES RECEIVING HEALTH BENEFITS AS OF JUNE 30, 2011

	Under 65	Over 65	Total
Number	3,348	3,574	6,922
Average Age	59.1	75.9	67.8

The valuation also includes 3,485 inactive members eligible for health care at age 60.



SECTION III - ASSETS

1. As of June 30, 2011 the market value of Medical Insurance Fund assets for valuation purposes held by the medical plans amounted to \$294,818,595 and the market value of Life Insurance Fund assets for valuation purposes held by the life insurance plan amounted to \$88,526,680.
2. Schedule B shows the receipts and disbursements for the year preceding the valuation date and a reconciliation of the asset balances for the Medical Insurance Fund and the Life Insurance Fund.

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 C.
2. The valuation shows that the medical plans have an actuarial accrued liability of \$1,513,059,331 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 inactive members amounts to \$14,242,655. The liability on account of benefits payable to retirees and covered spouses amounts to \$1,895,846,379. The total actuarial accrued liability of the medical plans amounts to \$3,423,148,365. Against these liabilities, the medical plans have present assets for valuation purposes of \$294,818,595. When this amount is deducted from the actuarial accrued liability of \$3,423,148,365 there remains \$3,128,329,770 as the unfunded actuarial accrued liability for the medical plans.
3. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the medical plans is determined to be \$68,938,173, or 2.00% of payroll.



4. The valuation shows that the life insurance plan has an actuarial accrued liability of \$15,918,883 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 inactive members amounts to \$1,666,481. The liability on account of benefits payable to retirees amounts to \$70,502,418. The total actuarial accrued liability of the life insurance plan amounts to \$88,087,782. This amount includes liability for death in active service. The liability for death in active service could be segregated from the OPEB liability and assets could be split for active and post employment purposes. As this could be administratively burdensome and, as death in active service liabilities can be considered de minimis, it is acceptable to consider the entire liability an OPEB liability under GASB 43 and 45. Against these liabilities, the life insurance plan has present assets for valuation purposes of \$88,526,680. When this amount is deducted from the actuarial accrued liability of \$88,087,782 there remains \$(438,898) as the unfunded actuarial accrued liability for the life insurance plan.
5. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the life insurance plan is determined to be \$1,070,709, or 0.03% of payroll.



SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain (loss) for the year ended June 30, 2011 is shown below (\$1,000's).

Experience Gain/(Loss) of the:		Medical Insurance Fund	Life Insurance Fund
(1)	UAAL* as of 6/30/2010	\$ 2,965,582	\$ 4,186
(2)	Normal cost from last valuation	77,102	1,276
(3)	Expected employer contributions	<u>477,723</u>	<u>1,726</u>
(4)	Interest accrual: [(1) + (2) - (3)] x interest**	205,197	280
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 2,770,158	\$ 4,016
(6)	Change due to plan amendments	0	0
(7)	Change due to new actuarial assumptions	363,153	(4,792)
(8)	Change due to claims experience	(476,581)	0
(9)	Expected UAAL after changes: (5) + (6) + (7) + (8)	\$ 2,656,730	\$ (776)
(10)	Actual UAAL as of 6/30/2011	\$ 3,128,330	\$ (439)
(11)	Total gain/(loss): (9) - (10)	\$ (471,600)	\$ (337)
(a)	Contribution shortfall and investment loss	(314,847)	(3,487)
(b)	Experience gain/(loss) (11) - (11a)	\$ (156,753)	\$ 3,150
(12)	Accrued liabilities as of 6/30/2010	\$ 3,206,806	\$ 92,091
(13)	Experience gain/(loss) as percent of actuarial accrued liabilities at start of year (11b) / (12)	(4.9%)	3.4%

* *Unfunded Actuarial Accrued Liability*

** *Interest is 8.0% for the Medical Insurance Fund and 7.5% for the Life Insurance Fund*



SECTION VI – CONTRIBUTIONS PAYABLE UNDER THE PLANS

- Sections 161.420 and 161.550 of the Kentucky Revised Statutes provide the amounts employers and the State are required to contribute to the Medical Insurance Fund. These contribution amounts vary by fiscal year, date of membership, and employee type.

Employer Percentage of Payroll Contribution Made to Medical Insurance Fund						
Fiscal Year Ending	University Employees		School District Employees (Non-Federal)*		Other Employees	
	Hired Before 7/1/2008	Hired On or After 7/1/2008	Hired Before 7/1/2008	Hired On or After 7/1/2008	Hired Before 7/1/2008	Hired On or After 7/1/2008
2012	1.090%	0.750%	0.500%	0.500%	1.250%	0.750%
2013	1.430%	0.750%	1.000%	1.000%	1.750%	0.750%
2014	1.750%	0.750%	1.500%	1.500%	2.250%	1.250%
2015	2.270%	1.270%	2.250%	2.250%	3.000%	2.000%
2016 and Later	2.775%	1.775%	3.000%	3.000%	3.750%	2.750%

*In addition to the amounts contributed by School Districts on behalf of Non-Federal employees, the State contributes 0.75%.

For the fiscal year ending June 30, 2014, member contributions will be 1.75% for University employees who became members of the System before July 1, 2008 and 2.25% for all other members. CMC recommends employer and State contributions increase to the required amount of 5.20% of payroll for University employees hired prior to July 1, 2008 and 4.70% of payroll for all other members. The State is scheduled to contribute 0.05% of salary to the Life Insurance Fund for the fiscal year ending June 30, 2013. CMC's valuation indicates a contribution of 0.03% for the fiscal year ending June 30, 2014 is required to sufficiently support the benefits of the life insurance plan.



**REQUIRED CONTRIBUTION RATES
For Fiscal Year Ending June 30, 2014**

Medical Insurance Fund							
Normal	2.00%						
Accrued Liability	<u>4.95%</u>						
Total	6.95%						
	University Employees		School District Employees (Non-Federal)		Other Employees		
	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08	
	Member	1.75%	1.75%	2.25%	2.25%	2.25%	2.25%
	Employer (ARC)	1.75%	0.75%	1.50%	1.50%	2.25%	1.25%
	State (ARC)	<u>3.45%</u>	<u>4.45%</u>	<u>3.20%</u>	<u>3.20%</u>	<u>2.45%</u>	<u>3.45%</u>
Total	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	

Life Insurance Fund	
Normal	0.03%
Accrued Liability	<u>0.00%</u>
Total	0.03%
Member	0.00%
State (ARC)	<u>0.03%</u>
Total	0.03%

- The valuation indicates that a total normal contribution of 2.00% of payroll is required to meet the cost of benefits currently accruing under the medical plans and 0.03% of payroll is required to meet the cost of benefits currently accruing under the life insurance plan. The difference between the total contribution and the normal contribution remains to be applied toward the liquidation of the unfunded actuarial accrued liability. This accrued liability payment is 4.95% of payroll for the medical plans and 0.00% of payroll for the life insurance plan.
- The unfunded actuarial accrued liability amounts to \$3,128,329,770 for the medical plans and \$(438,898) for the life insurance plan as of the valuation date. An accrued liability contribution of 4.95% of payroll for the medical plans and 0.00% of payroll for the life insurance plan is sufficient to amortize the unfunded actuarial accrued liabilities over a 30-year period, based on the assumption that the payroll will increase by 4.0% annually.



SECTION VII - COMMENTS ON LEVEL OF FUNDING

1. The System's monthly contribution for retirees to opt into the medical plan is based upon date of hire and years of service at retirement. Additionally, beneficiary contributions may vary by plan election, Medicare eligibility, and tobacco use. Beneficiary contributions for dependents are targeted to be 100% of the cost of expected claims for spouses age 65 and older. Historically, this target has been achieved. 100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State. Current employer and State contributions have been determined to be insufficient to fund the cost of the benefits to be provided. Benefits for university, school district (non-Federal), and other members are identical, although active employee contributions collected from university, school district (non-Federal), and other members differ. A listing of member contributions by fiscal year, date of membership, and employer type is provided in Schedule D.
2. The valuation indicates an increase in scheduled contributions is required to fund the medical plans in an actuarially sound manner and to ensure the future solvency of the Medical Insurance Fund. For University employees who became members of the System before July 1, 2008, a member contribution of 1.75% of payroll together with employer and State contributions of 5.20% of payroll are required 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. For the remaining membership, a member contribution of 2.25% of payroll together with employer and State contributions of 4.70% of payroll is required 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.



SECTION VIII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the medical and life insurance plans and the employer.

NUMBER OF ACTIVE AND RETIRED MEMBERS IN MEDICAL PLANS AS OF JUNE 30, 2011	
GROUP	NUMBER
Retirees currently receiving health benefits	35,033
Spouses of retirees currently receiving health benefits	6,922
Terminated employees entitled to benefits but not yet receiving benefits	3,485
Active plan members	<u>76,349</u>
Total	121,789

NUMBER OF ACTIVE AND RETIRED MEMBERS IN LIFE INSURANCE PLAN AS OF JUNE 30, 2011	
Group	Number
Retirees	41,118
Terminated employees	3,485
Active plan members	<u>76,349</u>
Total	120,952



SCHEDULE OF FUNDING PROGRESS
Medical Insurance Fund
(Dollar amounts in \$1,000's)

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)
6/30/2005	147,311	4,763,947	4,616,636	3.1%	2,703,430	170.8%
6/30/2006 ¹	131,614	4,341,963	4,210,349	3.0%	2,859,477	147.2%
6/30/2007 ²	140,772	5,928,761	5,787,989	2.4%	2,975,289	194.5%
6/30/2008	185,883	6,434,522	6,248,639	2.9%	3,190,332	195.9%
6/30/2009 ³	229,103	6,454,733	6,225,630	3.5%	3,253,077	191.4%
6/30/2010 ⁴	241,224	3,206,806	2,965,582	7.5%	3,321,614	89.3%
6/30/2011 ⁵	294,819	3,423,149	3,128,330	8.6%	3,451,756	90.6%

¹Reflects change in decrement assumptions and plan design.

²Reflects change in discount rate to 4.5% and updating medical trend.

³Reflects change in participation assumptions and plan design.

⁴Reflects change in discount rate to 8.0%, change in plan design and updating medical trend.

⁵Reflects change in decrement assumptions and updating medical trend.

SCHEDULE OF FUNDING PROGRESS
Life Insurance Fund
(Dollar amounts in \$1,000's)

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)
6/30/2007	\$71,426	\$82,722	\$11,296	86.3%	\$2,975,289	0.38%
6/30/2008	77,658	84,265	6,607	92.2%	3,190,332	0.21%
6/30/2009	84,703	90,334	5,631	93.8%	3,253,077	0.17%
6/30/2010	87,905	92,091	4,186	95.5%	3,321,614	0.13%
6/30/2011	88,527	88,088	(439)	100.5%	3,451,756	(0.01%)



2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2011. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2011
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent of Pay, Open
Remaining Amortization Period	30 Years
Asset Valuation Method	Market Value of Assets
Actuarial Assumptions:	
Investment Rate of Return*	8.00% Medical 7.50% Life Insurance
Medical Trend Assumption (Pre-Medicare)**	10.5% - 5.0%
Medical Trend Assumption (Post-Medicare)	8.5% - 5.0%
Year of Ultimate Trend Rate	2019

* Includes price inflation at 3.50%.

**Alternate trend rates were used for Medicare Part B premiums and are disclosed in Schedule C.

SCHEDULE OF EMPLOYER CONTRIBUTIONS Medical Insurance Fund

Fiscal Year Ending Date	Annual Required Contribution (ARC) (a)	Actual Employer Contribution (b)	RDS Contribution (c)	Total Contribution (b) + (c)	Percentage of ARC Contributed [(b) + (c)] / (a)
6/30/2007	\$231,473,321	\$113,258,761	\$10,312,361	\$123,571,122	53.4%
6/30/2008	395,282,164	148,954,644	11,911,565	160,866,209	40.7%
6/30/2009	467,312,904	164,480,119	13,611,748	178,091,867	38.1%
6/30/2010	457,054,117	158,765,496	14,614,285	173,379,781	37.9%
6/30/2011	477,723,070	188,453,929	280,585	188,734,514	39.5%

SCHEDULE OF EMPLOYER CONTRIBUTIONS Life Insurance Fund

Fiscal Year Ending Date	Annual Required Contribution (ARC) (a)	Actual Employer Contribution (b)	Percentage of ARC Contributed (b) / (a)
6/30/2007	\$1,785,173	\$5,022,137	281.3%
6/30/2008	1,914,199	5,411,249	282.7%
6/30/2009	1,498,076	5,455,473	364.2%
6/30/2010	1,992,969	1,966,826	98.7%
6/30/2011	1,725,878	1,668,822	96.7%



3. Following is the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2011. As the medical and life insurance plans are cost-sharing multiple-employer plans, GASB Statement 45 does not require the participating employers to disclose this information.

**Annual OPEB Cost and Net OPEB Obligation
for the Medical Insurance Fund for Fiscal Year Ending June 30, 2011**

(a) Employer Annual Required Contribution	\$477,723,070
(b) Interest on Net OPEB Obligation	36,647,057
(c) Adjustment to Annual Required Contribution	<u>29,075,954</u>
(d) Annual OPEB Cost: (a) + (b) – (c)	\$485,294,173
(e) Employer contributions for Fiscal Year 2011	<u>188,734,514</u>
(f) Increase in Net OPEB Obligation: (d) – (e)	\$296,559,659
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>\$814,379,040</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	\$1,110,938,699

TREND INFORMATION FOR THE MEDICAL INSURANCE FUND

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2008	\$395,282,164	40.7%	\$234,415,955
6/30/2009	\$469,492,218	37.9%	\$525,816,306
6/30/2010	\$461,942,516	37.5%	\$814,379,040
6/30/2011	\$485,294,173	38.9%	\$1,110,938,699



Annual OPEB Cost and Net OPEB Obligation
for the Life Insurance Fund for Fiscal Year Ending June 30, 2011

(a) Employer Annual Required Contribution	\$1,725,878
(b) Interest on Net OPEB Obligation	(576,388)
(c) Adjustment to Annual Required Contribution	<u>(397,460)</u>
(d) Annual OPEB Cost: (a) + (b) – (c)	\$1,546,950
(e) Employer contributions for Fiscal Year 2011	<u>1,668,822</u>
(f) Increase in Net OPEB Obligation: (d) – (e)	\$(121,872)
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>(\$7,685,177)</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	(\$7,807,049)

TREND INFORMATION FOR THE LIFE INSURANCE FUND

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2008	\$1,914,199	282.7%	(\$3,497,050)
6/30/2009	\$1,416,656	385.1%	(\$7,535,867)
6/30/2010	\$1,817,516	108.2%	(\$7,685,177)
6/30/2011	\$1,546,950	107.9%	(\$7,807,049)



SCHEDULE A

**RESULTS OF THE VALUATION AS OF JUNE 30, 2011
(Dollar amounts in \$1,000's)**

	Medical Insurance Fund	Life Insurance Fund
PAYROLL	\$ 3,451,756	\$ 3,451,756
ACTUARIAL ACCRUED LIABILITY		
Present value of prospective benefits payable in respect of:		
(a) Present active members	\$ 1,513,059	\$ 15,919
(b) Present terminated vested members	14,243	1,667
(c) Present retired members and covered spouses	<u>1,895,847</u>	<u>70,502</u>
(d) Total actuarial accrued liability	\$ 3,423,149	\$ 88,088
PRESENT ASSETS FOR VALUATION PURPOSES	\$ 294,819	\$ 88,527
UNFUNDED ACTUARIAL ACCRUED LIABILITY	\$ 3,128,330	\$ (439)
CONTRIBUTIONS FOR FISCAL YEAR ENDING JUNE 30, 2014:		
Normal	2.00%	0.03%
Accrued Liability	<u>4.95%</u>	<u>0.00%</u>
Total	6.95%	0.03%
Member	2.22%	0.00%
Employer (ARC)	1.51%	0.00%
State (ARC)	<u>3.22%</u>	<u>0.03%</u>
Total	6.95%	0.03%



SCHEDULE A
(continued)

**MEDICAL INSURANCE FUND
SOLVENCY TEST**
(Dollar amounts in millions)

Valuation Date	(1)	(2)	(3)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants And Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
6/30/2006	\$0.0	\$2,434.1	\$1,907.9	\$131.6	n/a	5%	0%
6/30/2007	0.0	2,816.3	3,112.5	140.8	n/a	5	0
6/30/2008	0.0	3,084.4	3,350.2	185.9	n/a	6	0
6/30/2009	0.0	3,203.7	3,251.0	229.1	n/a	7	0
6/30/2010	0.0	1,948.6	1,258.2	241.2	n/a	12	0
6/30/2011	0.0	1,910.1	1,513.1	294.8	n/a	15	0

**LIFE INSURANCE FUND
SOLVENCY TEST**
(Dollar amounts in millions)

Valuation Date	(1)	(2)	(3)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants And Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
6/30/2007	\$0.0	\$64.8	\$18.0	\$71.4	n/a	100%	37%
6/30/2008	0.0	66.9	17.4	77.7	n/a	100	62
6/30/2009	0.0	72.0	18.4	84.7	n/a	100	69
6/30/2010	0.0	74.4	17.7	87.9	n/a	100	76
6/30/2011	0.0	72.2	15.9	88.5	n/a	100	103



SCHEDULE B
MEDICAL INSURANCE FUND
SUMMARY OF RECEIPTS AND DISBURSEMENTS
(Market Value)

	For the Year Ending	
	June 30, 2011	June 30, 2010
Receipts for the Year		
Contributions		
Members Statutory	\$ 35,472,931	\$ 26,579,278
Payment by Retired Members	48,674,406	37,226,295
Total Members	<u>\$ 84,147,337</u>	<u>\$ 63,805,573</u>
State Statutory Contributions	32,455,802	24,561,433
State Special	145,900,000	0
General Fund Surplus	0	0
Allotment from Pension Fund	<u>9,885,400</u>	<u>134,200,000</u>
Total Employer	<u>\$ 188,241,202</u>	<u>\$ 158,761,433</u>
Grand Total	<u>\$ 273,388,539</u>	<u>\$ 222,567,006</u>
Recovery Income	212,727	4,063
Medicare D Receipts	280,585	14,614,285
Net Investment Income	<u>8,334,296</u>	<u>12,312,999</u>
TOTAL	<u>\$ 281,216,147</u>	<u>\$ 249,498,353</u>
Disbursements for the Year		
Refunds to Members	\$ 0	\$ 0
Administrative Expense	1,186,029	0
Medical Insurance Expense	<u>226,435,363</u>	<u>237,377,528</u>
TOTAL	<u>\$ 227,621,392</u>	<u>\$ 237,377,528</u>
Excess of Receipts over Disbursements	<u>\$ 53,594,755</u>	<u>\$ 12,120,825</u>
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of the Year	\$ 241,223,840	\$ 229,103,015
Excess of Receipts over Disbursements	<u>53,594,755</u>	<u>12,120,825</u>
Asset Balance as of the End of the Year	<u>\$ 294,818,595</u>	<u>\$ 241,223,840</u>



SCHEDULE B
(Continued)

LIFE INSURANCE FUND
SUMMARY OF RECEIPTS AND DISBURSEMENTS
(Market Value)

	For the Year Ending	
	June 30, 2011	June 30, 2010
Receipts for the Year		
Contributions		
Members	\$ 0	\$ 0
State	<u>1,668,822</u>	<u>1,966,826</u>
Total	\$ 1,668,822	\$ 1,966,826
Net Investment Income	<u>3,094,776</u>	<u>5,383,644</u>
TOTAL	\$ 4,763,598	\$ 7,350,470
Disbursements for the Year		
Benefit Payments	\$ 4,120,000	\$ 4,148,511
Refunds to Members	0	0
Medical Insurance Payments	0	0
Miscellaneous, including expenses	<u>21,511</u>	<u>0</u>
TOTAL	\$ 4,141,511	\$ 4,148,511
Excess of Receipts over Disbursements	\$ 622,087	\$ 3,201,959
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of the Year	\$ 87,904,593	\$ 84,702,634
Excess of Receipts over Disbursements	<u>622,087</u>	<u>3,201,959</u>
Asset Balance as of the End of the Year	<u>\$ 88,526,680</u>	<u>\$ 87,904,593</u>



SCHEDULE C

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The rates of retirement, disability, mortality, termination, and salary increases used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2010, submitted to and adopted by the Board on September 19, 2011. The discount rate, rates of future participation, health care cost trend rates, and expected plan costs were determined by the actuary based on plan experience.

VALUATION DATE: June 30, 2011

DISCOUNT RATE: 8.0% per annum, compounded annually for the Medical Insurance Fund
7.5% per annum, compounded annually for the Life Insurance Fund

HEALTH CARE COST TREND RATES: Following is a chart detailing trend assumptions.

Fiscal Year Ended	Medicare Part B Trend	Under Age 65 Trend	Age 65 and Over Trend
2012	-13.4%	10.5%	8.5%
2013	10.6%	9.5%	7.5%
2014	4.8%	8.5%	7.0%
2015	4.3%	7.5%	6.5%
2016	4.3%	6.5%	6.0%
2017	5.3%	6.0%	5.5%
2018	5.7%	5.5%	5.0%
2019	5.8%	5.0%	5.0%
2020	5.5%	5.0%	5.0%
2021 and beyond	5.0%	5.0%	5.0%

AGE RELATED MORBIDITY: For retirees age 65 and older, per capita costs are adjusted to reflect expected medical cost changes related to age. The increase to the net incurred claims was assumed to be:

Participant Age	Annual Increase
65 – 69	3.0%
70 – 74	2.5%
75 – 79	2.0%
80 – 84	1.0%
85 - 89	0.5%
90 and over	0.0%



SCHEDULE C
(Continued)

MEDICAL PLAN COSTS: Assumed per capita health care costs were based on past experience and trended based on the assumptions. Following are charts detailing retiree per capita assumptions. These amounts include medical, drug, and administrative costs and represent the amount that KTRS pays as the full contribution amount. For retirees age 65 and older, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

Pre-65 Full Costs as of January 1, 2012			
Tier	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
Single	\$496.14	\$638.16	\$663.30
Parent Plus	\$764.68	\$927.08	\$922.88
Couple	\$1,144.72	\$1,414.46	\$1,432.36
Family	\$1,272.86	\$1,568.06	\$1,595.80

Average Monthly KTRS Full Costs and Contributions			
Year	Pre-65 Contributions	Post-65 Full Costs	Post-65 Contributions
CY 2004	\$293	\$274	\$274
CY 2005	\$412	\$288	\$288
CY 2006	\$461	\$315	\$315
CY 2007	\$458	\$283	\$283
CY 2008	\$484	\$278	\$278
CY 2009	\$545	\$301 ¹	\$285
CY 2010	\$594	\$373 ¹	\$342
CY 2011	\$626	\$289	\$289
CY 2012	\$638	\$270 ²	\$270

¹ Under GASB 43 and 45, cost reductions for the amount of the Medicare Part D Retiree Drug Subsidy cannot be taken into account in the gross cost calculations.

² 1,800 current benefit recipients are not eligible for premium-free Medicare Part A benefits. For these individuals, the full cost of coverage is, on average, \$590 per month. It is assumed no new members will enter this population, as all active members are assumed to have begun contributing to Medicare as of 4/1/1986.

ANTICIPATED FUTURE MEDICAL PLAN ELECTIONS: The assumed annual rates of member plan elections were based upon current retiree under age 65 plan elections, and are as follows:

Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
3%	19%	78%



SCHEDULE C
(Continued)

ANTICIPATED MEMBER MEDICAL PLAN PARTICIPATION: Representative values of the assumed annual rates of medical plan participation are as follows:

Years of Service	Member Participation*			
	Hired before 7/1/2002 (age 65 on 12/31/2004 or earlier)	Hired Before 7/1/2002 (age 65 on 1/1/2005 or later)	Hired after 6/30/2002 and before 7/1/2008	Hired 7/1/2008 and later
5-9.99	70%	25%	10%	Not Eligible
10-14.99	80%	50%	25%	Not Eligible
15-19.99	90%	75%	45%	45%
20-24.99	93%	93%	65%	65%
25-25.99	93%	93%	90%	90%
26-26.99	93%	93%	93%	93%
27 or more	93%	93%	93%	93%

* Members retiring from inactive status are assumed to participate at 50% of the corresponding rate listed.

SPOUSE COVERAGE IN MEDICAL PLANS: Used actual census data and current plan elections for spouses of current retirees. For spouses of future retirees, assumed 20% of future retirees will cover spouses, with females 3 years younger than males.

WITHDRAWAL ASSUMPTION: It is assumed 30% of the vested members who terminate elect to withdraw their contributions while the remaining 70% elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date.

DISABLED DEPENDENT CHILDREN: The liability associated with disabled dependent children was determined to be de minimis and was therefore excluded from this valuation.



SCHEDULE C
(Continued)

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

MALES								
Age	Annual Rate of							
	SALARY*	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
				Years of Service			Before 27 Years of Service	After 27 Years of Service**
				0 – 4	5 – 9	10+		
20	8.10%	0.012%	0.01%	9.00%				
25	7.20%	0.015%	0.01%	9.00%	3.00%			
30	6.20%	0.020%	0.02%	9.00%	3.00%	3.00%		
35	5.50%	0.035%	0.05%	10.00%	3.25%	1.75%		
40	5.00%	0.046%	0.09%	10.00%	4.00%	1.40%		
45	4.60%	0.058%	0.18%	11.00%	4.00%	1.50%		17.0%
50	4.50%	0.074%	0.33%	9.00%	4.00%	2.00%		17.0%
55	4.30%	0.124%	0.55%	12.00%	3.50%	2.50%	5.5%	35.0%
60	4.20%	0.244%	0.70%	12.00%	3.50%	2.50%	13.0%	24.0%
62	4.10%	0.324%	0.70%	12.00%	3.50%	2.50%	15.0%	25.0%
65	4.00%	0.480%	0.70%	12.00%	3.50%	2.50%	21.0%	26.0%
70	4.00%	0.821%	0.70%	0.00%	0.00%	0.00%	100.0%	100.0%

FEMALES								
Age	Annual Rate of							
	SALARY*	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
				Years of Service			Before 27 Years of Service	After 27 Years of Service**
				0 – 4	5 – 9	10+		
20	8.10%	0.007%	0.01%	7.00%				
25	7.20%	0.008%	0.02%	8.50%	4.00%			
30	6.20%	0.010%	0.04%	9.00%	4.00%	1.65%		
35	5.50%	0.017%	0.08%	9.00%	3.75%	1.85%		
40	5.00%	0.024%	0.14%	8.50%	3.25%	1.50%		
45	4.60%	0.037%	0.32%	7.50%	3.25%	1.25%		15.0%
50	4.50%	0.055%	0.42%	9.50%	3.50%	1.75%		15.0%
55	4.30%	0.103%	0.56%	11.00%	4.00%	2.00%	6.0%	35.0%
60	4.20%	0.201%	0.85%	11.00%	4.00%	2.00%	14.0%	30.0%
62	4.10%	0.263%	0.85%	11.00%	4.00%	2.00%	12.5%	25.0%
65	4.00%	0.390%	0.85%	11.00%	4.00%	2.00%	22.0%	30.0%
70	4.00%	0.672%	0.85%	0.00%	0.00%	0.00%	100.0%	100.0%

* Includes inflation at 3.5% per annum.

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



SCHEDULE C
(Continued)

DEATHS AFTER RETIREMENT: The RP-2000 Combined Mortality Table (set back one year for females) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table (set back seven years for males and set back five years for females) is used for death after disability retirement. Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 4% greater for healthy lives and 5% greater for disabled lives than expected under the selected tables. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

Age	Annual Rate of Death After			
	Service Retirement		Disability Retirement	
	Male	Female	Male	Female
45	0.1161%	0.0745%	2.2571%	1.1535%
50	0.1487	0.1100	2.2571	1.6544
55	0.2469	0.2064	2.6404	2.1839
60	0.4887	0.4017	3.2859	2.8026
65	0.9607	0.7797	3.9334	3.7635
70	1.6413	1.3443	4.6584	5.2230
75	2.8538	2.1680	5.6909	7.2312
80	5.2647	3.6066	7.3292	10.0203
85	9.6240	6.1634	9.7640	14.0049
90	16.9280	11.2205	12.8343	19.4509
95	25.6992	17.5624	16.2186	23.7467

PAYROLL GROWTH: 4.00% per annum, compounded annually.

PRICE INFLATION: 3.50% per annum, compounded annually.

ACTUARIAL METHOD: Entry age normal cost method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability. For pre-Medicare retiree healthcare liabilities, the current premium charged by the Kentucky Employees' Health Plan (KEHP) is used as the base cost is projected forward using the healthcare trend assumption. No implicit rate subsidy is calculated or recognized as the subsidy is the responsibility of KEHP. For the Medicare-eligible retirees, claims were analyzed and current premiums were utilized with appropriate aging factors applied.

ASSET VALUATION METHOD: Market Value as provided by KTRS. Return on assets assumed to be 8.00% for the Medical Insurance Fund and 7.50% for the Life Insurance Fund.



SCHEDULE D

**SUMMARY OF MAIN PLAN PROVISIONS
AS INTERPRETED FOR VALUATION PURPOSES**

ELIGIBILITY FOR ACCESS TO RETIREE MEDICAL COVERAGE:

Service Retirement: For employees hired prior to July 1, 2008, retiree medical coverage eligibility is attained when an employee retires, which is possible after the completion of 27 years of service or attainment of age 55 and 5 years of service. For employees hired on or after July 1, 2008, employees may retire after the completion of 27 years of service, the attainment of age 55 and 10 years of service, or the attainment of age 60 and 5 years of service, but must complete a minimum of 15 years of service to be eligible for retiree medical coverage.

Disability Retirement: Disabled employees with at least 5 years of service, who are totally and permanently incapable of being employed as a teacher, are eligible for retiree medical coverage.

Survivors: Spouses of employees who die in service while eligible to retire, as well as survivors of service and disabled retirees, are eligible for retiree medical coverage.

Termination: Members that terminated with at least 5 years of service and have attained age 60 are eligible for retiree medical coverage.

COVERED MEMBER MEDICAL PLAN CONTRIBUTIONS:

Retiree Years of Service Percentage Contribution: Retirees contribute the following percentages based on years of service at retirement:

Retiree Percentage Contribution				
Year of Service	Hired before 7/1/2002 (age 65 on 12/31/2004 or earlier)	Hired Before 7/1/2002 (age 65 on 1/1/2005 or later)	Hired after 6/30/2002 and before 7/1/2008	Hired 7/1/2008 and later
5 – 9.99	30%	75%	90%	Not Eligible
10 – 14.99	20%	50%	75%	Not Eligible
15 – 19.99	10%	25%	55%	55%
20 – 24.99	0%	0%	35%	35%
25 – 25.99	0%	0%	10%	10%
26 – 26.99	0%	0%	5%	5%
27 or more	0%	0%	0%	0%

Retiree contributions toward pre-65 healthcare are based upon the rate of \$600.92 per month for single coverage effective January 1, 2012, and retiree contributions toward post-65 healthcare are based upon the rate of \$270 per month for single coverage effective January 1, 2012.



SCHEDULE D
(Continued)

COVERED MEMBER MEDICAL PLAN CONTRIBUTIONS (CONTINUED):

Pre-65 Retiree Shared Responsibility Contribution: Effective July 1, 2010, retirees under the age of 65 began a three-year phase-in of the Shared Responsibility Contribution. This contribution reduces the applicable amount of the full contribution provided by the System to retirees, by adjusting the Shared Responsibility Contribution amount by 100% less the appropriate percentage from the Retiree Percentage Contribution table. Effective July 1, 2012, the full Shared Responsibility Contribution will equal the Standard Part B premium that is paid by retirees age 65 and over.

Pre-65 Shared Responsibility Contribution Timeline			
Effective Date	Medicare Part B Monthly Cost	Formula	Shared Responsibility Contribution
July 1, 2010	\$110.50	(1/3 x \$110.50)	\$37.00
January 1, 2011	\$115.40	(1/3 x \$115.40)	\$39.00
July 1, 2011	\$115.40	(2/3 x \$115.40)	\$77.00
January 1, 2012	\$ 99.90	(2/3 x \$99.90)	\$66.00
July 1, 2012	\$ 99.90	\$99.90	\$99.90

Pre-65 Retiree Plan Cost Contribution: A contribution according to the table below is required to be paid by pre-65 retirees based on the plan elected:

Pre-65 Plan Cost Contribution*			
Tier	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
Single	\$0.00	\$37.24	\$62.74
Parent Plus	\$8.28	\$160.00	\$195.60
Couple	\$282.18	\$493.00	\$520.60
Family	\$288.44	\$584.00	\$622.50

* Does not include the additional contribution required to be paid by pre-65 retiree smokers, which also varies on the plan elected.

Spouse Contributions: 100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State. Spouses of post-65 retirees, as well as surviving spouses of deceased retirees, pay 100% of the full contribution. Spouses of active members who died while eligible to retire prior to July 1, 2002, are provided the same subsidy by KTRS that would have been provided to the retiree for the lifetime of the spouse, or until remarriage. Spouses of active members who die while eligible to retire July 1, 2002, and later, pay 100% of the full contribution.

Pre-65 Surviving Spouse Contribution			
Tier	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
Spouse Single	\$501.85	\$643.87	\$669.01



SCHEDULE D
(Continued)

SYSTEM MEDICAL PLAN CONTRIBUTIONS: The full contribution is determined by KTRS; and the full cost is projected based on historical claims data. For retirees the following percentages of full contributions are provided based on years of service at retirement:

Percentage of Full Medical Contribution Provided to Retirees				
Year of Service	Hired before 7/1/2002 (age 65 on 12/31/2004 or earlier)	Hired Before 7/1/2002 (age 65 on 1/1/2005 or later)	Hired after 6/30/2002 and before 7/1/2008	Hired 7/1/2008 and later
5 – 9.99	70%	25%	10%	Not Eligible
10 – 14.99	80%	50%	25%	Not Eligible
15 – 19.99	90%	75%	45%	45%
20 – 24.99	100%	100%	65%	65%
25 – 25.99	100%	100%	90%	90%
26 – 26.99	100%	100%	95%	95%
27 or more	100%	100%	100%	100%

Effective January 1, 2009, contributions toward pre-65 healthcare are based upon the Commonwealth Capital Choice Plan which has a net rate of \$600.92 (\$638.16 less the required retiree plan cost contribution of \$37.24) per month for single coverage effective January 1, 2012.

Contributions toward post-65 healthcare are based upon the rate of \$270 per month for single coverage effective January 1, 2012.

ACTIVE MEMBER MEDICAL PLAN CONTRIBUTIONS: Active members make payroll contributions to the Medical Insurance Fund based upon the following schedule:

Active Member Percentage of Payroll Contribution Made to Medical Insurance Fund						
Fiscal Year Ending	University Employees		School District Employees (Non-Federal)		Other Employees	
	Hired Before 7/1/2008	Hired On or After 7/1/2008	Hired Before 7/1/2008	Hired On or After 7/1/2008	Hired Before 7/1/2008	Hired On or After 7/1/2008
2012	1.090%	1.750%	1.250%	1.750%	1.250%	1.750%
2013	1.430%	1.750%	1.750%	1.750%	1.750%	1.750%
2014	1.750%	1.750%	2.250%	2.250%	2.250%	2.250%
2015	2.270%	2.270%	3.000%	3.000%	3.000%	3.000%
2016 and Later	2.775%	2.775%	3.750%	3.750%	3.750%	3.750%



SCHEDULE D
(Continued)

LIFE INSURANCE BENEFIT:

(1) Effective July 1, 2000, the Teachers' Retirement System shall:

- (a) Provide a life insurance benefit in a minimum amount of five thousand dollars (\$5,000) for its members who are retired for service or disability. This life insurance benefit shall be payable upon the death of a member retired for service or disability to the member's estate or to a party designated by the member on a form prescribed by the retirement system; and
- (b) Provide a life insurance benefit in a minimum amount of two thousand dollars (\$2,000) for its active contributing members. This life insurance benefit shall be payable upon the death of an active contributing member to the member's estate or to a party designated by the member on a form prescribed by the retirement system.

Note: Qualified members working 45 days per year will be eligible for survivor benefits and a life insurance benefit for the balance of the fiscal year and disability benefits under certain conditions. For substitute and part-time members, the survivor benefits and life insurance benefit are provided during the first 44 days if death occurs as the result of a physical injury on the job. The disability benefit is available as a direct result of a physical injury on the job during the five-year vesting period. After vesting, the disability benefit is available upon working 45 days for the balance of that fiscal year in accordance with the regular KTRS disability program.



SCHEDULE E

**TABLE 1
ACTIVE AGE AND SERVICE TABLE AS OF JUNE 30, 2011**

Attained Age	Completed Years of Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	>= 35	
24 & under	2,461	1							2,462
Total Pay	41,168,000	43,000							41,211,000
Avg. Pay	16,728	43,000							16,739
25 to 29	7,124	1,405							8,529
Total Pay	222,544,000	66,018,000							288,562,000
Avg. Pay	31,239	46,988							33,833
30 to 34	3,770	5,093	967						9,830
Total Pay	111,427,000	250,802,000	53,648,000						415,877,000
Avg. Pay	29,556	49,244	55,479						42,307
35 to 39	2,716	2,470	4,124	628					9,938
Total Pay	73,577,000	122,975,000	240,200,000	39,874,000					476,626,000
Avg. Pay	27,090	49,787	58,244	63,494					47,960
40 to 44	3,698	1,903	2,459	3,164	713				11,937
Total Pay	78,560,000	95,796,000	142,806,000	202,764,000	47,075,000				567,001,000
Avg. Pay	21,244	50,339	58,075	64,085	66,024				47,499
45 to 49	1,742	1,259	1,391	1,511	2,273	631			8,807
Total Pay	40,970,000	64,667,000	81,094,000	98,367,000	151,467,000	42,699,000			479,264,000
Avg. Pay	23,519	51,364	58,299	65,101	66,637	67,669			54,419
50 to 54	1,511	973	1,194	1,211	1,320	1,739	381		8,329
Total Pay	31,062,000	49,208,000	70,429,000	78,534,000	90,131,000	123,612,000	26,959,000		469,935,000
Avg. Pay	20,557	50,573	58,986	64,851	68,281	71,082	70,759		56,422
55 to 59	2,245	724	982	1,035	1,125	821	597	82	7,611
Total Pay	33,132,000	37,292,000	59,798,000	68,831,000	77,411,000	61,016,000	46,788,000	7,134,000	391,402,000
Avg. Pay	14,758	51,508	60,894	66,503	68,810	74,319	78,372	87,000	51,426
60 to 64	2,842	519	494	627	638	439	151	115	5,825
Total Pay	38,464,000	26,979,000	31,260,000	41,981,000	46,193,000	33,463,000	13,713,000	10,452,000	242,505,000
Avg. Pay	13,534	51,983	63,279	66,955	72,403	76,226	90,815	90,887	41,632
65 & over	2,164	246	155	144	145	112	40	75	3,081
Total Pay	20,190,000	10,359,000	9,870,000	9,807,000	10,342,000	8,439,000	3,365,000	7,001,000	79,373,000
Avg. Pay	9,330	42,110	63,677	68,104	71,324	75,348	84,125	93,347	25,762
Total	30,273	14,593	11,766	8,320	6,214	3,742	1,169	272	76,349
Total Pay	691,094,000	724,139,000	689,105,000	540,158,000	422,619,000	269,229,000	90,825,000	24,587,000	3,451,756,000
Avg. Pay	22,829	49,622	58,567	64,923	68,011	71,948	77,695	90,393	45,210

Average Age: 43.6

Average Service: 10.9



SCHEDULE E
(Continued)

TABLE 2
SCHEDULE OF TOTAL ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	Percentage Increase in Average Pay
6/30/2011	76,349	\$3,451,756,288	\$45,210	3.97%
6/30/2010	76,387	3,321,614,223	43,484	1.51
6/30/2009	75,937	3,253,076,600	42,839	1.43
6/30/2008	75,539	3,190,332,239	42,234	6.67
6/30/2007	75,144	2,975,289,033	39,594	2.10
6/30/2006	73,740	2,859,477,425	38,778	3.68

TABLE 3
TERMINATED VESTED MEMBERS ELIGIBLE FOR HEALTH CARE AT AGE 60
AS OF JUNE 30, 2011
MALE AND FEMALE DEMOGRAPHIC BREAKDOWN

Attained Age	Number of		Total Number
	Males	Females	
Under 30	1	15	16
30-34	47	228	275
35-39	110	420	530
40-44	139	498	637
45-49	144	458	602
50-54	154	473	627
55-59	132	377	509
60 & Over	80	209	289
Total	807	2,678	3,485



SCHEDULE E
(Continued)

TABLE 4
ALL RETIREES AND SPOUSES RECEIVING HEALTH BENEFITS AS OF JUNE 30, 2011
MALE AND FEMALE DEMOGRAPHIC BREAKDOWN

Attained Age	Number of		Total Number
	Males	Females	
Under 40	8	29	37
40-44	18	57	75
45-49	50	180	230
50-54	301	868	1,169
55-59	1,604	3,813	5,417
60-64	3,573	7,120	10,693
65-69	3,112	5,227	8,339
70-74	2,232	3,610	5,842
75-79	1,724	2,350	4,074
80-84	1,076	1,927	3,003
85-89	643	1,202	1,845
90-94	234	606	840
95-99	51	273	324
100	6	23	29
101	2	13	15
102	0	13	13
103	0	3	3
104	0	2	2
105 & Over	0	5	5
Total	14,634	27,321	41,955