



**Report on the Annual Valuations of the
Kentucky Employees Retirement System
County Employees Retirement System
State Police Retirement System**

Prepared as of June 30, 2007



Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

October 31, 2007

Board of Trustees
Kentucky Retirement Systems
Perimeter Park West
1260 Louisville Road
Frankfort, Kentucky 40601

Subject: Certification of Actuarial Results

Dear Members of the Board:

The fifty-first annual actuarial valuation of the Kentucky Employees Retirement System, the forty-eighth annual actuarial valuation of the County Employees Retirement System, and the forty-ninth annual actuarial valuation of the State Police Retirement System have been completed and the reports prepared. These reports describe the current actuarial condition of the Kentucky Retirement Systems (KRS), determine the calculated employer contribution rates, and analyze fluctuations in these contribution rates.

Under state statute, the Board of Trustees must approve the employer contribution rate for the upcoming fiscal year based upon the results of the most recent annual valuation. These rates are determined actuarially based upon current membership data, plan provisions, and the assumptions and funding policies adopted by the KRS Board. Employer contribution rates become effective one year after the valuation date. The recently completed June 30, 2007 actuarial valuation will be used by the Board of Trustees to certify the employer contribution rates for the fiscal year beginning July 1, 2008 and ending June 30, 2009.

Funding Objectives & Policies

For each retirement system, KRS administers both a pension and insurance fund to provide for monthly retirement allowances and retiree insurance benefits respectively. The total employer contribution rate is comprised of a contribution to each respective fund.

Relative to the pension fund, a contribution rate has been established which consists of the normal cost and an amortization payment on the unfunded accrued liability (UAL). The normal cost is expected to remain level as a percent of payroll in future years. The amortization of any UAL is made over 30 years from the establishment of the amortization base using a level percent of payroll amortization method. Prior to the June 30, 2007 actuarial valuation, each year any actuarial gains or losses, along with any other changes in the actuarial liability (such as the retiree COLA or other benefit improvements) are established as a new amortization base to be amortized over the following 30 years. Effective with the June 30, 2007 actuarial valuation, all amortization bases have been combined and amortized over a single 30-year period beginning June 30, 2007. The amortization period will decrease by one each year going forward (i.e. 29-year amortization June 30, 2008, 28-year amortization June 30, 2009, and so on).



Overall, the total contribution for the pension fund is expected to remain stable as a percentage of payroll over future years in the absence of benefit improvements and material experience gains or losses. However, the current valuation contribution rate does not anticipate any future cost of living increases to benefit recipients as required by statute. Should these cost of living increases occur in the future, the contribution rate for the pension fund will be expected to increase as a percentage of payroll in the absence of material aggregate experience gains.

Relative to the insurance fund, the Board's funding objective is to establish a contribution rate which consists of the normal cost and an amortization payment on the UAL over a 30 year period. Beginning with the June 30, 2006 valuation, the assumptions and methods used are to meet the requirements of GASB Statement No. 43. As with the pension Fund, going forward, the combined UAL bases will be amortized over a 30 year period beginning June 30, 2007. The amortization period will decrease by one each year in the future.

Administrative expenses of the plans are also included as part of the total pension fund contribution. This portion of the funding is expected to remain stable as a percentage of payroll over future years.

Progress towards Realization of Funding Objectives

The progress towards achieving the intended funding objectives, both relative to the pension and insurance funds, can be measured by the relationship of actuarial assets of each fund to the actuarial accrued liabilities. This relationship is known as the funding level and in the absence of benefit improvements, should increase over time until it reaches 100%.

In recent years, funding levels for the pension funds have fallen dramatically in response to investment returns less than the actuarially assumed rate, higher than anticipated retirement rates, the 2006 assumption changes, and increasing expenditures for retiree Cost of Living Adjustments (COLA). Within the KERS and SPRS plans, employer contribution rate reductions enacted by the State Legislature have limited the plans ability to correct the declining funding levels. As of June 30, 2007 the funding levels for the pension funds are as follows:

System	Pension Funding Level
KERS Non-Hazardous Pension Fund	56.9%
KERS Hazardous Pension Fund	83.6%
CERS Non-Hazardous Pension Fund	82.1%
CERS Hazardous Pension Fund	74.2%
SPRS Pension Fund	63.7%

The funding level for the insurance funds is not anywhere near 100% at this time, and the Board's funding objective is to increase this funded level consistently over time. Medical inflation rates in excess of the assumed rates as well as recent employer contribution rate reductions under KERS and SPRS have significantly limited this improvement. The recent adoption of new actuarial assumptions and the application of GASB Statement 43 requirements have further reduced the measured funding level. As of June 30, 2007 the funding level for the insurance funds are as follows:

System	Insurance Funding Level
KERS Non-Hazardous Insurance Fund	11.9%
KERS Hazardous Insurance Fund	49.8%
CERS Non-Hazardous Insurance Fund	28.8%
CERS Hazardous Insurance Fund	31.2%
SPRS Insurance Fund	26.6%



Data

In completing the valuation of these systems, we have relied on data provided by Kentucky Retirement Systems, as well as financial data provided by the plan's external auditor. We have reviewed this data for reasonableness, and made some general edit checks to impute certain information that may not have been provided with the original employee data. However, we have not audited this data. Any schedules of trend data over the past ten years or less contained in the Actuarial Section, as well as the Schedule of Funding Progress and Schedule of Employer Contributions in the Financial Section, have been based on valuation reports fully prepared by the actuary for the plan at the time of each valuation.

Assumptions & Methods

The Board of Trustees, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. Once every five years the actuary conducts a thorough review of plan experience for the preceding five years, and then makes recommendations to the Board. The actuarial assumptions and methods used for the funding calculations of the valuation, as adopted by the Board on January 19, 2006 based on the experience investigation report dated January 12, 2006, meet the parameters set for disclosure under GASB Statements No. 25 and 43. The health care cost trend assumptions were updated for the June 30, 2007 valuation adopted by the Board November 15, 2007. These assumptions have been adopted by the Board of Trustees of the Kentucky Retirement Systems in accordance with the recommendation of the actuary. The next experience study is schedule to be completed in January 2011 and any adjustments will be reflected in the June 30, 2011 actuarial valuation.

Closing

The information presented in this letter describes the pertinent issues relative to the valuation. There are no other specific issues that need to be raised beyond these items in order to fairly assess the funded position of the plan as presented in the current valuation.

Based on the continuation of current funding policies adopted by the Board, adequate provision is being determined for the funding of the actuarial liabilities of the Kentucky Employees Retirement System, the County Employees Retirement System, and the State Police Retirement System as required by the Kentucky Revised Statutes. The funding rates established by the Board are appropriate for this purpose.

Sincerely,

Thomas J. Cavanaugh FSA, FCA, MAAA, EA
Chief Executive Officer

Edward A. Macdonald ASA, FCA, MAAA
President

Summary of June 30, 2007 Actuarial Valuation Results

	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
<u>Recommended Contribution Rate (Fiscal Year 2008-2009)</u>					
Pension Fund Contribution	16.54%	10.84%	7.76%	15.04%	32.39%
Insurance Fund Contribution	<u>20.38</u>	<u>23.94</u>	<u>12.75</u>	<u>27.62</u>	<u>59.54</u>
Recommended Employer Contribution	36.92%	34.78%	20.51%	42.66%	91.93%
<u>Funded Status as of Valuation Date</u>					
<i>Pension Fund</i>					
Actuarial Liability	\$9,485,939,277	\$558,992,329	\$6,659,446,126	\$2,208,736,179	\$547,955,286
Actuarial Value of Assets	5,396,782,459	467,287,809	\$5,467,824,480	\$1,639,288,924	348,806,508
Unfunded Actuarial Liability on Actuarial Value of Assets	4,089,156,818	91,704,520	\$1,191,621,646	\$569,447,255	199,148,778
Funding Level as a % of Actuarial Value of Assets	56.89%	83.59%	82.11%	74.22%	63.66%
Market Value of Assets	\$5,773,156,838	\$510,775,499	\$5,812,935,251	\$1,754,934,764	\$376,381,488
Unfunded Actuarial Liability on Market Value of Assets	3,712,782,439	48,216,830	\$846,510,875	\$453,801,415	171,573,798
Funding Level on Market Value of Assets	60.86%	91.37%	87.29%	79.45%	68.69%
<i>Insurance Fund</i>					
Actuarially Accrued Liability	\$5,201,355,055	\$504,842,981	\$3,333,966,070	\$1,646,460,011	\$432,763,229
Actuarial Value of Assets	621,171,658	251,536,756	\$960,285,900	\$512,926,549	115,215,912
Unfunded Actuarial Liability as a % of Actuarial Value of Assets	4,580,183,397	253,306,225	\$2,373,680,170	\$1,133,533,462	317,547,317
Funding Level as a % of Actuarial Value of Assets	11.94%	49.82%	28.80%	31.15%	26.62%
Market Value of Assets	\$663,558,360	\$280,885,910	\$1,084,042,781	\$570,155,702	\$132,573,898
Unfunded Actuarial Liability as a % of Market Value of Assets	4,537,796,695	223,957,071	\$2,249,923,289	\$1,076,304,309	300,189,331
Funding Level on Market Value of Assets	12.76%	55.64%	32.52%	34.63%	30.63%
<u>Member Data</u>					
Number of Active Members	47,913	4,349	84,920	10,063	957
Total Annual Payroll (Active Members)	\$1,780,223,493	\$144,838,020	\$2,076,848,328	\$458,998,956	\$49,247,580
Average Annual Pay (Active Members)	\$37,155	\$33,304	\$24,457	\$45,613	\$51,460
Number of Retired Members & Beneficiaries	33,849	2,202	35,564	5,159	1,105
Average Annual Retirement Allowance	\$18,477	\$12,502	\$9,805	\$22,046	\$33,673
Number of Vested Inactive Members	5,298	278	8,093	436	47



Additional Valuation Notes

In addition to the valuation results presented in the three reports that follow, certain calculations were made to round out the presentation and put the results in greater perspective. That information follows.

- Recent Contribution Shortfall – Although it has happened periodically in the past, there has been an ongoing contribution shortfall for KERS and SPRS since the 2002-2003 fiscal year. That shortfall has placed additional pressure on contribution rates, and that impact is compounding. The table below shows the recommended and budgeted contribution rates as a percent of payroll for KERS and SPRS over the last five fiscal years. The rates shown are the combined rates for retirement and insurance.

Fiscal Year	Recommended Rate	Budgeted Rate
<u>KERS Non-Hazardous</u>		
2002-2003	5.89%	3.76%
2003-2004	7.53	5.89
2004-2005	10.29	5.89
2005-2006	13.62	5.89
2006-2007	17.13	7.75
<u>KERS Hazardous</u>		
2002-2003	18.84%	17.60%
2003-2004	18.84	18.84
2004-2005	19.47	18.84
2005-2006	21.59	18.84
2006-2007	23.32	22.00
<u>SPRS</u>		
2002-2003	21.58%	17.37%
2003-2004	21.58	21.58
2004-2005	28.08	21.58
2005-2006	34.83	21.58
2006-2007	42.30	25.50

Had the recommended contributions been made over this period of time, the contribution rates recommended as a result of the June 30, 2007 valuations would have been reduced by 1.38% of payroll for KERS Non-Hazardous, 0.41% for KERS Hazardous and 2.62% for SPRS.



- Market Value of Assets and COLA Liability Impact on Funding Ratio - The funding ratio for all the Plans is based on the actuarial liabilities and asset values computed for the purpose of meeting funding requirements on the basis required by state law. This basis does not take all actuarial liabilities and investment performance to date into account. If the Retirement and Insurance results were combined, if the market value instead of actuarial value of assets were used, and if a 3% annual cost-of-living adjustment for retirement benefits were assumed to be in effect for all future years, then the funding ratio for the combined Retirement and Insurance plans would be lower, as shown in the table below.

System	Reported Funding Ratio	Adjusted Funding Ratio
KERS Non-Hazardous	40.97%	36.38%
KERS Hazardous	67.57	63.52
CERS Non-Hazardous	64.32	57.40
CERS Hazardous	55.83	50.14
SPRS	47.31	43.54

- Impact of Blended Interest Rates on Insurance Valuations - The June 30, 2007 Insurance Plan valuations recognize the parameters required by GASB Statements No. 43 and 45. One of the parameters is that a blended interest rate must be used when the benefits are not being fully funded. This rate reflects the level of advanced funding that is occurring. Because of the contribution rate shortfall noted above, blended rates were required for KERS Non-Hazardous and SPRS. The rate used for the June 30, 2007 valuation is 4.50% for both KERS Non-Hazardous and SPRS. If KERS Non-Hazardous and SPRS were being fully funded, an interest rate of 7.75% would be used, reducing liabilities and therefore contribution rates. The impact on rates is shown in the table below.

Insurance Plan	"Blended" Contribution Rate	"Full Funding" Contribution Rate
KERS Non-Hazardous	20.38%	12.06%
SPRS	59.54	27.75



- Unrecognized Investment Gains and Losses - The actuarial value of assets is determined by smoothing market gains and losses over a five year period. This results in a difference between market value and actuarial value of assets on each valuation date representing the gains and losses that have yet to be recognized in the valuation. The total unrecognized investment gain as of June 30, 2007 for each of the plans is shown in the table below.

Plan	Unrecognized investment gains/(losses)	Actuarial value as a % of market value
<u>KERS Non-Hazardous</u>		
Retirement	\$376,374,379	93.5%
Insurance	42,386,702	93.6
<u>KERS Hazardous</u>		
Retirement	\$43,487,690	91.5%
Insurance	29,349,154	89.6
<u>CERS Non-Hazardous</u>		
Retirement	\$345,110,771	94.1%
Insurance	123,756,881	88.6
<u>CERS Hazardous</u>		
Retirement	\$115,645,840	93.4%
Insurance	57,229,153	90.0
<u>SPRS</u>		
Retirement	\$27,574,980	92.7%
Insurance	17,357,986	86.9



**Report on the Annual Valuation of the
Kentucky Employees Retirement System**

Prepared as of June 30, 2007

November 19, 2007

Board of Trustees
Kentucky Retirement Systems
Perimeter Park West
1260 Louisville Road
Frankfort, KY 40601

Dear Members of the Board:

Presented in this report are the results of the annual actuarial valuation of the retirement and insurance benefits provided under the Kentucky Employees Retirement System (KERS). The purpose of the valuation was to measure the System's funding progress and to determine the required employer contribution rates for the fiscal year beginning July 1, 2008.

The date of the valuation was June 30, 2007.

The valuation was based upon data, furnished by the Executive Director and the Kentucky Retirement Systems (KRS) staff, concerning active, inactive and retired members along with pertinent financial information. The complete cooperation of the KRS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the summary of results on page 1 and the comments on page 6.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA
Chief Executive Officer

Edward A. Macdonald, ASA, FCA, MAAA
President

TJC/EAM:kc

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**REPORT ON THE ANNUAL VALUATION OF THE
KENTUCKY EMPLOYEES RETIREMENT SYSTEM**

PREPARED AS OF JUNE 30, 2007

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2007, presents the results of the annual actuarial valuation of the retirement and insurance benefits provided under the System. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results, broken down between non-hazardous and hazardous members, are summarized in the following table.

SUMMARY OF PRINCIPAL RESULTS

	KERS Non-Hazardous		KERS Hazardous		KERS Totals	
	6/30/2007	6/30/2006	6/30/2007	6/30/2006	6/30/2007	6/30/2006
Contributions for next fiscal year:						
Retirement	16.54%	15.55%	10.84%	10.20%		
Insurance	<u>20.38</u>	<u>32.82</u>	<u>23.94</u>	<u>36.91</u>	N/A	N/A
Total	36.92%	48.37%	34.78%	47.11%		
Funded status as of valuation date:						
Retirement						
Actuarial accrued liability	\$9,485,939,277	\$8,994,826,247	\$558,992,329	\$508,655,903	\$10,044,931,606	\$9,503,482,150
Actuarial value of assets	5,396,782,459	5,394,086,323	467,287,809	427,984,192	5,864,070,268	5,822,070,515
Unfunded liability on actuarial value of assets	4,089,156,818	3,600,739,924	91,704,520	80,671,711	4,180,861,338	3,681,411,635
Funded ratio on actuarial value of assets	56.89%	59.97%	83.59%	84.14%	58.38%	61.26%
Market value of assets	\$5,773,156,838	\$5,440,132,708	\$510,775,499	\$437,029,583	\$6,283,932,337	\$5,877,162,291
Unfunded liability on market value of assets	3,712,782,439	3,554,693,539	48,216,830	71,626,320	3,760,999,269	3,626,319,859
Funded ratio on market value of assets	60.86%	60.48%	91.37%	85.92%	62.56%	61.84%
Insurance						
Actuarial accrued liability	\$5,201,355,055	\$7,815,480,774	\$504,842,981	\$621,237,856	\$5,706,198,036	\$8,436,718,630
Actuarial value of assets	621,171,658	611,350,765	251,536,756	212,833,318	872,708,414	824,184,083
Unfunded liability on actuarial value of assets	4,580,183,397	7,204,130,009	253,306,225	408,404,538	4,833,489,622	7,612,534,547
Funded ratio on actuarial value of assets	11.94%	7.82%	49.82%	34.26%	15.29%	9.77%
Market value of assets	\$663,558,360	\$632,642,846	\$280,885,910	\$223,523,081	\$944,444,270	\$856,165,927
Unfunded liability on market value of assets	4,537,796,695	7,182,837,928	223,957,071	397,714,775	4,761,753,766	7,580,552,703
Funded ratio on market value of assets	12.76%	8.09%	55.64%	35.98%	16.55%	10.15%
Demographic data as of valuation date:						
Number of retired participants and beneficiaries	33,849	32,140	2,202	1,980	36,051	34,120
Number of vested former members	5,298	4,998	278	265	5,576	5,263
Number of former members due a refund	25,606	24,145	2,460	2,236	28,066	26,381
Number of active members	47,913	46,707	4,349	4,320	52,262	51,027
Total salary	\$1,780,223,493	\$1,702,230,777	\$144,838,020	\$138,747,320	\$1,925,061,513	\$1,840,978,097
Average salary	37,155	36,445	33,304	32,117	36,835	36,079

2. The valuation balance sheets showing the results of the valuation are given in Schedule A.
3. Comments on the valuation results are given in Section IV, comments on the experience and actuarial gains during the valuation year are given in Section V, and the rates of contribution payable by employers are given in Section VI.
4. There were no changes in benefit provisions since the last valuation. Since the previous valuation, the assumptions and methods were changed as follows:
 - Medical trend rates were changed to a range starting at 12.0% per year in 2008 and declining to an ultimate rate of 5.0% in 2015 and later
 - All accrued liability amortization bases were consolidated and reset to a new 30-year closed amortization period beginning with the June 30, 2007 valuation. In future years, the total unfunded accrued liability will be amortized over the remaining period.
5. Schedule B of this report presents the development of the actuarial value of assets. Schedule C details the actuarial assumptions and methods employed. Schedule D gives a summary of the benefit and contribution provisions of the plan.
6. The investment rate of return for developing insurance liabilities and contribution rates shown in this report for June 30, 2006 and June 30, 2007 is 4.50% for KERS Non-Hazardous and 7.75% for KERS Hazardous. The lower rate for KERS Non-Hazardous is required under the parameters set by the Governmental Accounting Standards Board Statements 43 and 45 given the lack of pre-funding of insurance benefits.

SECTION II – MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following tables summarize the membership of the system as of June 30, 2007 upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Active Members

Employee Group	Number	Payroll	Group Averages		
			Salary	Age	Service
Non-Hazardous	47,913	\$1,780,223,493	\$37,155	43.3	9.3
Hazardous	4,349	144,838,020	33,304	41.7	7.0
Total in KERS	52,262	\$1,925,061,513	\$36,835	43.2	9.1

The following tables show a six-year history of active member valuation data.

SCHEDULE OF NON-HAZARDOUS KERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2002	48,555	\$1,597,344,963	\$32,898	3.1%
6/30/2003	49,158	1,658,604,696	33,740	2.6
6/30/2004	47,599	1,645,412,496	34,568	2.5
6/30/2005	47,118	1,655,907,288	35,144	1.7
6/30/2006	46,707	1,702,230,777	36,445	3.7
6/30/2007	47,913	1,780,223,493	37,155	1.9

SCHEDULE OF HAZARDOUS KERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2002	4,211	\$125,371,604	\$29,772	1.8%
6/30/2003	4,189	129,088,956	30,816	3.5
6/30/2004	4,014	126,664,812	31,556	2.4
6/30/2005	4,274	131,687,088	30,811	(2.4)
6/30/2006	4,320	138,747,320	32,117	4.2
6/30/2007	4,349	144,838,020	33,304	3.7

The following tables show the number and annual retirement allowances payable to retired members and their beneficiaries on the roll of the Retirement System as of the valuation date as well as certain group averages.

Non-Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	28,145	\$566,279,509	\$20,120	66.1
Disability	1,866	20,252,391	10,853	62.5
Beneficiary	3,838	38,903,516	10,136	69.4
Total in KERS	33,849	\$625,435,416	\$18,477	66.3

Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	1,852	\$24,977,927	\$13,487	61.3
Disability	121	890,089	7,356	56.8
Beneficiary	229	1,660,773	7,252	57.6
Total in KERS	2,202	\$27,528,789	\$12,502	60.7

This valuation also includes 33,642 inactive members (30,904 Non-Hazardous and 2,738 Hazardous; of which 5,298 Non-Hazardous are vested and 278 Hazardous are vested.)

SECTION III – ASSETS

1. As of June 30, 2007 the total market value of assets amounted to \$7,228,376,607 as shown in the following table.

**MARKET VALUE OF ASSETS BY FUND
AS OF JUNE 30, 2007**

Member Group	Retirement	Insurance	KERS Total
Non-Hazardous	\$5,773,156,838	\$663,558,360	\$6,436,715,198
Hazardous	<u>510,775,499</u>	<u>280,885,910</u>	<u>791,661,409</u>
Total	\$6,283,932,337	\$944,444,270	\$7,228,376,607

2. The five-year smoothed market related actuarial value of assets used for the current valuation was \$6,736,778,682 . Schedule B shows the development of the actuarial value of assets as of June 30, 2007. The following table shows the actuarial value of assets allocated among member groups.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	June 30, 2007	June 30, 2006
Retirement		
Non-Hazardous	\$ 5,396,782,459	\$ 5,394,086,323
Hazardous	<u>467,287,809</u>	<u>427,984,192</u>
Total	\$ 5,864,070,268	\$ 5,822,070,515
Insurance		
Non-Hazardous	\$ 621,171,658	\$ 611,350,765
Hazardous	<u>251,536,756</u>	<u>212,833,318</u>
Total	\$ 872,708,414	\$ 824,184,083
KERS Total		
Non-Hazardous	\$ 6,017,954,117	\$ 6,005,437,088
Hazardous	<u>718,824,565</u>	<u>640,817,510</u>
Total	\$ 6,736,778,682	\$ 6,646,254,598

SECTION IV - COMMENTS ON VALUATION

Schedule A of this report contains the valuation balance sheets which show the present and prospective assets and liabilities of the System as of June 30, 2007. Separate balance sheets are shown for each employee group as well as in total for Retirement and Insurance.

Retirement

1. The total valuation balance sheet on account of retirement benefits shows that the System has total prospective retirement benefit liabilities of \$11,461,835,101, of which \$6,601,446,674 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$142,281,269 is for the prospective benefits payable on account of present inactive members, and \$4,718,107,158 is for the prospective benefits payable on account of present active members. Against these retirement benefit liabilities the System has a total present actuarial value of assets of \$5,864,070,268 as of June 30, 2007. The difference of \$5,597,764,833 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of retirement benefits. Of this amount, \$849,292,004 is the present value of future contributions expected to be made by members, and the balance of \$4,748,472,829 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the System on account of retirement benefits consist of normal contributions, accrued liability contributions and contributions for administrative expenses. The valuation indicates that employer normal contributions at the rate of 3.22% of payroll for non-hazardous members and 6.86% of payroll for hazardous members are required to provide the benefits of the System for the average new member of KERS.
3. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$567,611,491. When this amount is subtracted from \$4,748,472,829, which is the present value of the total future contributions to be made by the employers, there remains \$4,180,861,338 as the amount of future accrued liability contributions.
4. For non-hazardous members, it is recommended that the accrued liability contribution rate payable by the State on account of retirement benefits be set at 12.92% of payroll. For hazardous members, it is recommended that the accrued liability contribution rate payable by the State on account of retirement benefits be set at 3.56% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$4,089,156,818 for non-hazardous members and \$91,704,520 for hazardous members over 30 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 3.50% each year.

5. The contribution rate for administrative expenses is determined to be 0.40% of payroll for non-hazardous members and 0.42% of payroll for hazardous members.

Insurance

1. The total valuation balance sheet on account of insurance benefits shows that the System has total prospective insurance benefit liabilities of \$7,500,046,349, of which \$2,479,917,722 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$290,469,391 is for the prospective benefits payable on account of present inactive members, and \$4,729,659,236 is for the prospective benefits payable on account of present active members. Against these retirement benefit liabilities the System has a total present actuarial value of assets of \$872,708,414 as of June 30, 2007. The difference of \$6,627,337,935 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of retirement benefits. Of this amount, \$0 is the present value of future contributions expected to be made by members, and the balance of \$6,627,337,935 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the System on account of insurance benefits consist of normal contributions, accrued liability contributions and contributions for administrative expenses. The valuation indicates that employer normal contributions at the rate of 10.37% of payroll for non-hazardous members and 14.04% of payroll for hazardous members are required to provide the benefits of the System for the average new member of KERS.
3. Prospective employer normal contributions on account of insurance benefits at the above rates have a present value of \$1,793,848,313. When this amount is subtracted from \$6,627,337,935, which is the present value of the total future contributions to be made by the employers, there remains \$4,833,489,622 as the amount of future accrued liability contributions.
4. For non-hazardous members, it is recommended that the accrued liability contribution rate payable by the State on account of insurance benefits be set at 9.83% of payroll. For hazardous members, it is recommended that the accrued liability contribution rate payable by the State on account of insurance benefits be set at 9.84% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$4,580,183,397 for non-hazardous members and \$253,306,225 for hazardous members over 30 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 3.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.18% of payroll for non-hazardous members and 0.06% of payroll for hazardous members.

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, 2007 is shown below (\$ millions).

**Experience Gain/(Loss)
Retirement Benefits**

		Non-Hazardous Group		Hazardous Group		Total
(1)	UAAL* as of 6/30/06	\$	3,600.7	\$	80.7	\$ 3,681.4
(2)	Normal cost from last valuation		63.3		10.1	73.4
(3)	Expected employer contributions		<u>264.6</u>		<u>14.2</u>	<u>278.9</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .0775		263.4		5.9	277.3
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$	3,662.8	\$	82.5	\$ 3,753.3
(6)	Change due to plan amendments		0.0		0.0	0.0
(7)	Change due to new actuarial assumption or methods		0.0		0.0	0.0
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$	3,662.8	\$	82.5	\$ 3,753.3
(9)	Actual UAAL as of 6/30/07	\$	4,089.2	\$	91.7	\$ 4,180.9
(10)	Gain/(loss): (8) - (9)	\$	(426.4)	\$	(9.2)	\$ (427.6)
(11)	Accrued liabilities as of 6/30/06	\$	8,994.8	\$	508.7	\$ 9,503.5
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year		(4.7%)		(1.8%)	(4.5%)

*Unfunded actuarial accrued liability.

**Experience Gain/(Loss)
Insurance Benefits**

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/06	\$ 7,204.1	\$ 408.4	\$ 7,612.5
(2)	Normal cost from last valuation	279.3	27.2	306.5
(3)	Expected employer contributions	<u>554.4</u>	<u>50.2</u>	<u>604.6</u>
(4)	Interest accrual: Non-Haz: [(1) + (2) - (3)] x .045 Haz: [(1) + (2) - (3)] x .0775	311.8	29.9	341.7
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 7,240.8	\$ 415.3	\$ 7,656.1
(6)	Change due to plan amendments	0.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	(2,388.1)	(216.4)	(2,604.5)
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$ 4,852.7	\$ 198.9	\$ 5,051.6
(9)	Actual UAAL as of 6/30/07	\$ 4,580.2	\$ 253.3	\$ 4,833.5
(10)	Gain/(loss): (8) - (9)	\$ 272.5	\$ (54.4)	\$ 218.1
(11)	Accrued liabilities as of 6/30/06	\$ 7,815.5	\$ 621.2	\$ 8,436.7
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	3.5%	(8.8%)	2.6%

*Unfunded actuarial accrued liability.

**NON-HAZARDOUS KERS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (72.6)	\$ (63.1)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	3.8	3.3
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(3.9)	(3.4)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	7.5	6.5
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(8.0)	339.4
New Members. Additional unfunded accrued liability will produce a loss.	(10.1)	(8.8)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	54.5	9.9
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	(0.4)	(0.3)
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(397.2)</u>	<u>(11.0)</u>
Gain (or Loss) During Year From Financial Experience	\$ (426.4)	\$ 272.5
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>2,388.1</u>
Composite Gain (or Loss) During Year	\$ (426.4)	\$ 2,660.6

**HAZARDOUS KERS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (8.8)	\$ (10.7)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	1.1	1.3
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.2)	(0.2)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	2.0	2.4
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(1.4)	25.4
New Members. Additional unfunded accrued liability will produce a loss.	(1.8)	(2.2)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	10.6	8.0
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	0.6	0.7
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(11.3)</u>	<u>(79.1)</u>
Gain (or Loss) During Year From Financial Experience	\$ (9.2)	\$ (54.4)
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>216.4</u>
Composite Gain (or Loss) During Year	\$ (9.2)	\$ 162.0

**TOTAL KERS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (81.4)	\$ (73.8)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	4.9	4.6
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(4.1)	(3.6)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	9.5	8.9
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(9.4)	364.8
New Members. Additional unfunded accrued liability will produce a loss.	(11.9)	(11.0)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	65.1	17.9
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	0.2	0.4
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(408.5)</u>	<u>(90.1)</u>
Gain (or Loss) During Year From Financial Experience	\$ (435.6)	\$ 218.1
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>2,604.5</u>
Composite Gain (or Loss) During Year	\$ (435.6)	\$ 2,822.6

SECTION VI – REQUIRED CONTRIBUTION RATES

The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by employers to the Retirement System. The following tables show the rates of contribution payable by employers as determined from the present valuation for the 2008/2009 fiscal year.

**Required Contribution Rates
Non-Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 126,395,868	7.10%
(2) Disability benefits	15,843,989	0.89
(3) Survivor benefits	4,094,514	0.23
(4) Total	\$ <u>146,334,371</u>	<u>8.22%</u>
B. Member Contributions	\$ 89,011,175	5.00%
C. Employer Normal Cost: [A(4) - B]	\$ 57,323,196	3.22%
D. Administrative Expenses	\$ 7,082,562	0.40%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/06 Valuation:	\$ 210,638,386	11.83%
(2) Change due to:		
a. Active decrements	\$ 3,668,683	0.21%
b. Pay increases	450,145	0.03
c. Retiree mortality	22,507	0.00
d. Investment return	(3,066,614)	(0.17)
e. COLA	11,928,846	0.67
f. Assumption Change	0	0.00
g. Other	6,447,299	0.35
h. Total Change	\$ <u>19,450,866</u>	<u>1.09%</u>
(3) UAAL Contribution Based on 6/30/07 Valuation: [E(1) +E(2)h]	\$ 230,089,252	12.92%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 294,495,010	16.54%

*Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 17,901,979	12.36%
(2) Disability benefits	2,607,084	1.80
(3) Survivor benefits	1,013,866	0.70
(4) Total	\$ 21,522,930	14.85%
B. Member Contributions	\$ 11,587,042	8.00%
C. Employer Normal Cost: [A(4) - B]	\$ 9,935,888	6.86%
D. Administrative Expenses	\$ 612,323	0.42%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/06 Valuation:	\$ 4,240,071	2.93%
(2) Change due to:		
a. Active decrements	\$ 343,235	0.24%
b. Pay increases	78,775	0.05
c. Retiree mortality	(33,761)	(0.02)
d. Investment return	(557,055)	(0.38)
e. COLA	832,768	0.57
f. Assumption Change	0	0.00
g. Other	256,010	0.17
h. Total Change	\$ 919,972	0.63%
(3) UAAL Contribution Based on 6/30/07 Valuation: [E(1) +E(2)h]	\$ 5,160,043	3.56%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 15,708,254	10.84%

* Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Non-Hazardous Insurance**

	Contribution for	Amount	% of Payroll
A.	Normal Cost:	\$ 184,600,233	10.37%
B.	Member Contributions*	\$ 0	0.00%
C.	Employer Normal Cost: [A - B]	\$ 184,600,233	10.37%
D.	Administrative Expenses	\$ 3,199,131	0.18%
E.	Unfunded Actuarial Accrued Liability**:	\$ 174,908,014	9.83%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	\$ 362,707,378	20.38%

*The liabilities are net of retiree contributions towards their healthcare

** Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Hazardous Insurance**

	Contribution for	Amount	% of Payroll
A.	Normal Cost:	\$ 20,333,837	14.04%
B.	Member Contributions*	\$ 0	0.00%
C.	Employer Normal Cost: [A - B]	\$ 20,333,837	14.04%
D.	Administrative Expenses	\$ 83,560	0.06%
E.	Unfunded Actuarial Accrued Liability**:	\$ 14,253,070	9.84%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	\$ 34,670,467	23.94%

*The liabilities are net of retiree contributions towards their healthcare

** Based on 30 year amortization of the UAAL from June 30, 2007

SECTION VII - ACCOUNTING INFORMATION

Governmental Accounting Standards Board Statements 25, 27, 43 and 45 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, 2007**

GROUP	NUMBER		
	Non-Hazardous	Hazardous	Total
Retirees and beneficiaries currently receiving benefits	33,849	2,202	36,051
Terminated employees entitled to benefits but not yet receiving benefits	30,904	2,738	33,642
Active Members	<u>47,913</u>	<u>4,349</u>	<u>52,262</u>
Total	112,666	9,289	121,955

Another such item is the Schedule of Funding Progress for retirement and insurance benefits separately as shown in the following tables.

**RETIREMENT BENEFITS
SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
Non-Hazardous Members						
6/30/2002	\$ 6,654,084,196	\$ 6,026,094,764	\$ (627,989,432)	110.4%	\$ 1,597,344,963	(39.3%)
6/30/2003	6,351,318,832	6,520,463,188	169,144,356	97.4	1,658,604,696	10.2
6/30/2004	6,000,513,743	7,049,613,171	1,049,099,428	85.1	1,645,412,496	63.8
6/30/2005	5,578,685,746	7,579,074,839	2,000,389,093	73.6	1,655,907,288	120.8
6/30/2006	5,394,086,323	8,994,826,247	3,600,739,924	60.0	1,702,230,777	211.5
6/30/2007	5,396,782,459	9,485,939,277	4,089,156,818	56.9	1,780,223,493	229.7
Hazardous Members						
6/30/2002	\$ 376,384,302	\$ 322,069,164	\$ (54,315,138)	116.9%	\$ 125,371,604	(43.3%)
6/30/2003	385,925,722	356,879,133	(29,046,589)	108.1	129,088,956	(22.5)
6/30/2004	397,212,763	403,578,036	6,365,273	98.4	126,664,812	5.0
6/30/2005	405,288,662	438,994,257	33,705,595	92.3	131,687,088	25.6
6/30/2006	427,984,192	508,655,903	80,671,711	84.1	138,747,320	58.1
6/30/2007	467,287,809	558,992,329	91,704,520	83.6	144,838,020	63.3
Total KERS Members						
6/30/2002	\$ 7,030,468,498	\$ 6,348,163,928	\$ (682,304,570)	110.7%	\$ 1,722,716,567	(39.6%)
6/30/2003	6,737,244,554	6,877,342,321	140,097,767	98.0	1,787,693,652	7.8
6/30/2004	6,397,726,506	7,453,191,207	1,055,464,701	85.8	1,772,077,308	59.6
6/30/2005	5,983,974,408	8,018,069,096	2,034,094,688	74.6	1,787,594,376	113.8
6/30/2006	5,822,070,515	9,503,482,150	3,681,411,635	61.3	1,840,978,097	200.0
6/30/2007	5,864,070,268	10,044,931,606	4,180,861,338	58.4	1,925,061,513	217.2

**INSURANCE BENEFITS
SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
Non-Hazardous Members						
6/30/2002	\$ 521,250,455	\$ 1,907,683,881	\$ 1,386,433,426	27.3%	\$ 1,597,344,963	86.8%
6/30/2003	553,885,082	2,093,210,321	1,539,325,239	26.5	1,658,604,696	92.8
6/30/2004	600,586,961	2,335,905,365	1,735,318,404	25.7	1,645,412,496	105.5
6/30/2005	607,068,351	2,680,559,188	2,073,490,837	22.7	1,655,907,288	125.2
6/30/2006	611,350,765	7,815,480,774	7,204,130,009	7.8	1,702,230,777	423.2
6/30/2007	621,171,658	5,201,355,055	4,580,183,397	11.9	1,780,223,493	257.3
Hazardous Members						
6/30/2002	\$ 135,874,582	\$ 236,819,050	\$ 100,944,468	57.4%	\$ 125,371,604	80.5%
6/30/2003	151,459,500	283,178,335	131,718,835	53.5	129,088,956	102.0
6/30/2004	169,158,879	323,503,563	154,344,684	52.3	126,664,812	121.9
6/30/2005	187,947,644	386,844,695	198,897,051	48.6	131,687,088	151.0
6/30/2006	212,833,318	621,237,856	408,404,538	34.3	138,747,320	294.4
6/30/2007	251,536,756	504,842,981	253,306,225	49.8	144,838,020	174.9
Total KERS Members						
6/30/2002	\$ 657,125,037	\$ 2,144,502,931	\$ 1,487,377,894	30.6%	\$ 1,722,716,567	86.3%
6/30/2003	705,344,582	2,376,388,656	1,671,044,074	29.7	1,787,693,652	93.5
6/30/2004	769,745,840	2,659,408,928	1,889,663,088	28.9	1,772,077,308	106.6
6/30/2005	795,015,995	3,067,403,883	2,272,387,888	25.9	1,787,594,376	127.1
6/30/2006	824,184,083	8,436,718,630	7,612,534,547	9.8	1,840,978,097	413.5
6/30/2007	872,708,414	5,706,198,036	4,833,489,622	15.3	1,925,061,513	251.1

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2007. Additional information as of the latest actuarial valuation follows.

Retirement Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2007	6/30/2007
Actuarial cost method	Entry Age	Entry Age
Amortization	Level Percent Closed	Level Percent Closed
Remaining amortization period	30 years	30 years
Asset valuation method	5 Year Smoothed Market	5 Year Smoothed Market
Actuarial assumptions		
Investment rate of return*	7.75%	7.75%
Projected salary increases*	4.0% - 13.5%	4.0% - 14.5%
Cost-of-living adjustment	None	None
*Includes inflation at	3.50%	3.50%

Insurance Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2007	6/30/2007
Actuarial cost method	Entry Age	Entry Age
Amortization	Level Percent Closed	Level Percent Closed
Remaining amortization period	30 years	30 years
Asset valuation method	5 Year Smoothed Market	5 Year Smoothed Market
Medical Trend Assumption	12.0% - 5.0%	12.0% - 5.0%
Year Ultimate Trend	2015	2015
Actuarial assumptions:		
Investment rate of return*	4.50%	7.75%
*Includes inflation at	3.50%	3.50%

SCHEDULE A

Valuation Balance Sheet and Solvency Test

The following valuation balance sheets show the assets and liabilities of the retirement system as of the current valuation date of June 30, 2007 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2006. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date.

VALUATION BALANCE SHEETS SHOWING THE ASSETS AND LIABILITIES OF THE KENTUCKY EMPLOYEES RETIREMENT SYSTEM

RETIREMENT BENEFITS NON-HAZARDOUS KERS MEMBERS

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 5,396,782,459	\$ 5,394,086,323
Prospective contributions		
Member contributions	\$ 749,698,617	\$ 711,518,422
Employer normal contributions	482,231,015	465,884,489
Unfunded accrued liability contributions	<u>4,089,156,818</u>	<u>3,600,739,924</u>
Total prospective contributions	<u>\$ 5,321,086,450</u>	<u>\$ 4,778,142,835</u>
Total assets	<u>\$ 10,717,868,909</u>	<u>\$ 10,172,229,158</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 6,310,580,255	\$ 5,763,076,811
Present value of benefits payable on account of active members	4,280,633,316	4,290,238,304
Present value of benefits payable on account of inactive members	<u>126,655,338</u>	<u>118,914,043</u>
Total liabilities	<u>\$ 10,717,868,909</u>	<u>\$ 10,172,229,158</u>

**VALUATION BALANCE SHEET
RETIREMENT BENEFITS
HAZARDOUS KERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 467,287,809	\$ 427,984,192
Prospective contributions		
Member contributions	\$ 99,593,387	\$ 94,495,624
Employer normal contributions	85,380,476	80,370,934
Unfunded accrued liability contributions	<u>91,704,520</u>	<u>80,671,711</u>
Total prospective contributions	<u>\$ 276,678,383</u>	<u>\$ 255,538,269</u>
 Total assets	 <u><u>\$ 743,966,192</u></u>	 <u><u>\$ 683,522,461</u></u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 290,866,419	\$ 248,804,272
Present value of benefits payable on account of active members	437,473,842	421,075,855
Present value of benefits payable on account of inactive members	<u>15,625,931</u>	<u>13,642,334</u>
 Total liabilities	 <u><u>\$ 743,966,192</u></u>	 <u><u>\$ 683,522,461</u></u>

**VALUATION BALANCE SHEET
RETIREMENT BENEFITS
TOTAL KERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 5,864,070,268	\$ 5,822,070,515
Prospective contributions		
Member contributions	\$ 849,292,004	\$ 806,014,046
Employer normal contributions	567,611,491	546,255,423
Unfunded accrued liability contributions	<u>4,180,861,338</u>	<u>3,681,411,635</u>
Total prospective contributions	<u>\$ 5,597,764,833</u>	<u>\$ 5,033,681,104</u>
 Total assets	 <u><u>\$ 11,461,835,101</u></u>	 <u><u>\$ 10,855,751,619</u></u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 6,601,446,674	\$ 6,011,881,083
Present value of benefits payable on account of active members	4,718,107,158	4,711,314,159
Present value of benefits payable on account of inactive members	<u>142,281,269</u>	<u>132,556,377</u>
 Total liabilities	 <u><u>\$ 11,461,835,101</u></u>	 <u><u>\$ 10,855,751,619</u></u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS
NON-HAZARDOUS KERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 621,171,658	\$ 611,350,765
Prospective contributions		
Normal contributions	\$ 1,649,460,524	\$ 2,538,834,443
Unfunded accrued liability contributions	<u>4,580,183,397</u>	<u>7,204,130,009</u>
Total prospective contributions	<u>\$ 6,229,643,921</u>	<u>\$ 9,742,964,452</u>
 Total assets	 <u>\$ 6,850,815,579</u>	 <u>\$ 10,354,315,217</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 2,292,824,569	\$ 3,067,574,794
Present value of benefits payable on account of active members	4,281,618,012	6,811,189,842
Present value of benefits payable on account of inactive members	<u>276,372,998</u>	<u>475,550,581</u>
 Total liabilities	 <u>\$ 6,850,815,579</u>	 <u>\$ 10,354,315,217</u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS
HAZARDOUS KERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 251,536,756	\$ 212,833,318
Prospective contributions		
Normal contributions	\$ 144,387,789	\$ 195,890,838
Unfunded accrued liability contributions	<u>253,306,225</u>	<u>408,404,538</u>
Total prospective contributions	<u>\$ 397,694,014</u>	<u>\$ 604,295,376</u>
 Total assets	 <u>\$ 649,230,770</u>	 <u>\$ 817,128,694</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 187,093,153	\$ 226,036,462
Present value of benefits payable on account of active members	448,041,224	583,069,979
Present value of benefits payable on account of inactive members	<u>14,096,393</u>	<u>8,022,253</u>
 Total liabilities	 <u>\$ 649,230,770</u>	 <u>\$ 817,128,694</u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS
TOTAL KERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 872,708,414	\$ 824,184,083
Prospective contributions		
Normal contributions	\$ 1,793,848,313	\$ 2,734,725,281
Unfunded accrued liability contributions	<u>4,833,489,622</u>	<u>7,612,534,547</u>
Total prospective contributions	<u>\$ 6,627,337,935</u>	<u>\$ 10,347,259,828</u>
 Total assets	 <u>\$ 7,500,046,349</u>	 <u>\$ 11,171,443,911</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 2,479,917,722	\$ 3,293,611,256
Present value of benefits payable on account of active members	4,729,659,236	7,394,259,821
Present value of benefits payable on account of inactive members	<u>290,469,391</u>	<u>483,572,834</u>
 Total liabilities	 <u>\$ 7,500,046,349</u>	 <u>\$ 11,171,443,911</u>

The following tables provide the solvency test for non-hazardous and hazardous KERS members.

**Solvency Test
Retirement Benefits
Non-Hazardous KERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 910,956,664	\$ 3,242,343,193	\$ 1,872,794,907	\$ 6,654,084,196	100.0%	100.0%	133.5%
6/30/2003*	859,895,312	3,844,696,149	1,815,871,727	6,351,318,832	100.0	100.0	90.7
6/30/2004*	915,105,103	4,452,864,748	1,681,643,320	6,000,513,743	100.0	100.0	37.6
6/30/2005*	866,044,474	5,056,247,608	1,656,782,757	5,578,685,746	100.0	93.2	0.0
6/30/2006	866,050,799	5,881,990,853	2,246,784,595	5,394,086,323	100.0	77.0	0.0
6/30/2007	878,842,180	6,437,235,593	2,169,861,504	5,396,782,459	100.0	70.2	0.0

*Reported by prior actuarial firm.

**Solvency Test
Retirement Benefits
Hazardous KERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 77,700,666	\$ 110,048,474	\$ 134,320,024	\$ 376,384,302	100.0%	100.0%	140.4%
6/30/2003*	71,414,721	135,622,333	149,842,079	385,925,722	100.0	100.0	119.4
6/30/2004*	78,817,575	175,102,848	149,657,613	397,212,763	100.0	100.0	95.7
6/30/2005*	75,098,321	213,310,550	150,585,386	405,288,662	100.0	100.0	77.6
6/30/2006	87,092,538	262,446,606	159,116,759	427,984,192	100.0	100.0	49.3
6/30/2007	88,670,847	306,492,350	163,829,132	467,287,809	100.0	100.0	44.0

*Reported by prior actuarial firm.

**Solvency Test
Insurance Benefits
Non-Hazardous KERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	(1)		(2)	(3)	
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)					
6/30/2002*	\$ 0	\$ 900,313,022	\$ 1,007,370,859	\$ 521,250,455	100.0%	57.9%	0.0%	
6/30/2003*	0	1,089,606,122	1,003,604,199	553,885,082	100.0	50.8	0.0	
6/30/2004*	0	1,282,214,660	1,053,690,705	600,586,961	100.0	46.8	0.0	
6/30/2005*	0	1,550,619,458	1,129,939,730	607,068,351	100.0	39.2	0.0	
6/30/2006	0	3,543,125,375	4,272,355,400	611,350,765	100.0	17.3	0.0	
6/30/2007	0	2,569,197,567	2,632,157,488	621,171,658	100.0	24.2	0.0	

*Reported by prior actuarial firm.

**Solvency Test
Insurance Benefits
Hazardous KERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	(1)		(2)	(3)	
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)					
6/30/2002*	\$ 0	\$ 90,978,506	\$ 145,840,544	\$ 135,874,582	100.0%	100.0%	30.8%	
6/30/2003*	0	113,979,451	169,198,884	151,459,500	100.0	100.0	22.2	
6/30/2004*	0	142,872,557	180,631,006	169,158,879	100.0	100.0	14.6	
6/30/2005*	0	187,883,650	198,961,045	187,947,644	100.0	100.0	0.0	
6/30/2006	0	234,058,715	387,179,141	212,833,318	100.0	90.9	0.0	
6/30/2007	0	201,189,546	303,653,435	251,536,756	100.0	100.0	16.6	

*Reported by prior actuarial firm.

SCHEDULE B

**Development of Actuarial Value of Assets
Retirement Benefits
Non-Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 5,578,685,745	\$ 5,394,086,323				
B. Market Value End of Year	5,440,132,708	5,773,156,838				
C. Market Value Beginning of Year	5,362,630,697	5,440,132,708				
D. Cash Flow						
D1. Contributions	168,287,852	204,502,532				
D2. Benefit Payments	(587,578,810)	(649,690,416)				
D3. Administrative Expenses	(7,567,641)	(7,082,562)				
D4. Investment Expenses	<u>(4,466,247)</u>	<u>(4,842,834)</u>				
D5. Net	(431,324,846)	(457,113,280)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	508,826,857	790,137,410				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	429,275,362	408,927,639				
E4. Amount for Phased-In Recognition	79,551,495	381,209,771				
F. Pasked-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	15,910,299	76,241,954				
F2. First Prior Year	(2,608,084)	15,910,299	76,241,954			
F3. Second Prior Year	28,891,832	(2,608,084)	15,910,299	76,241,954		
F4. Third Prior Year	(67,554,224)	28,891,832	(2,608,084)	15,910,299	76,241,954	
F5. Fourth Prior Year	<u>(157,189,761)</u>	<u>(67,554,224)</u>	<u>28,891,832</u>	<u>(2,608,084)</u>	<u>15,910,299</u>	<u>76,241,954</u>
F6. Total Recognized Investment Gain	(182,549,938)	50,881,777	118,436,001	89,544,169	92,152,253	76,241,954
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 5,394,086,323	\$ 5,396,782,459				
H. Difference Between Market & Actuarial Values	\$ 46,046,385	\$ 376,374,379	\$ 257,938,378	\$ 168,394,209	\$ 76,241,954	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Assets
Retirement Benefits
Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 405,288,662	\$ 427,984,192				
B. Market Value End of Year	437,029,583	510,775,499				
C. Market Value Beginning of Year	398,308,897	437,029,583				
D. Cash Flow						
D1. Contributions	22,858,959	26,482,004				
D2. Benefit Payments	(25,172,682)	(30,176,113)				
D3. Administrative Expenses	(645,377)	(612,323)				
D4. Investment Expenses	<u>(352,105)</u>	<u>(455,686)</u>				
D5. Net	(3,311,205)	(4,762,118)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	42,031,891	78,508,034				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	33,090,526	34,158,604				
E4. Amount for Phased-In Recognition	8,941,365	44,349,430				
F. Pasked-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	1,788,273	8,869,886				
F2. First Prior Year	151,597	1,788,273	8,869,886			
F3. Second Prior Year	2,340,134	151,597	1,788,273	8,869,886		
F4. Third Prior Year	(3,242,759)	2,340,134	151,597	1,788,273	8,869,886	
F5. Fourth Prior Year	<u>(8,121,036)</u>	<u>(3,242,759)</u>	<u>2,340,134</u>	<u>151,597</u>	<u>1,788,273</u>	<u>8,869,886</u>
F6. Total Recognized Investment Gain	(7,083,791)	9,907,131	13,149,890	10,809,756	10,658,159	8,869,886
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 427,984,192	\$ 467,287,809				
H. Difference Between Market & Actuarial Values	\$ 9,045,391	\$ 43,487,690	\$ 30,337,800	\$ 19,528,044	\$ 8,869,886	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Assets
Insurance Benefits
Non-Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 607,068,351	\$ 611,350,765				
B. Market Value End of Year	632,642,846	663,558,360				
C. Market Value Beginning of Year	610,901,623	632,642,846				
D. Cash Flow						
D1. Contributions	53,404,601	86,954,395				
D2. Benefit Payments	(95,822,805)	(111,659,052)				
D3. Administrative Expenses	(1,679,307)	(3,199,131)				
D4. Investment Expenses	<u>(442,465)</u>	<u>(366,841)</u>				
D5. Net	(44,539,976)	(28,270,629)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	66,281,199	59,186,143				
E2. Assumed Rate	8.25%	4.50%				
E3. Amount for Immediate Recognition	49,022,827	28,207,934				
E4. Amount for Phased-In Recognition	17,258,372	30,978,209				
F. Pasked-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	3,451,674	6,195,642				
F2. First Prior Year	(51,332)	3,451,674	6,195,642			
F3. Second Prior Year	7,351,776	(51,332)	3,451,674	6,195,642		
F4. Third Prior Year	(7,064,172)	7,351,776	(51,332)	3,451,674	6,195,642	
F5. Fourth Prior Year	<u>(3,888,383)</u>	<u>(7,064,172)</u>	<u>7,351,776</u>	<u>(51,332)</u>	<u>3,451,674</u>	<u>6,195,642</u>
F6. Total Recognized Investment Gain	(200,437)	9,883,588	16,947,760	9,595,984	9,647,316	6,195,642
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 611,350,765	\$ 621,171,658				
H. Difference Between Market & Actuarial Values	\$ 21,292,081	\$ 42,386,702	\$ 25,438,942	\$ 15,842,958	\$ 6,195,642	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Asset
Insurance Benefits
Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 187,947,644	\$ 212,833,318				
B. Market Value End of Year	223,523,081	280,885,910				
C. Market Value Beginning of Year	188,871,226	223,523,081				
D. Cash Flow						
D1. Contributions	17,100,064	19,843,444				
D2. Benefit Payments	(6,513,266)	(6,873,207)				
D3. Administrative Expenses	(63,250)	(83,560)				
D4. Investment Expenses	<u>(211,889)</u>	<u>(201,690)</u>				
D5. Net	10,311,659	12,684,987				
E. Investment Income						
E1. Market Total: B.-C.-D5.	24,340,195	44,677,842				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	16,227,862	18,024,088				
E4. Amount for Phased-In Recognition	8,112,334	26,653,754				
F. Pasked-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	1,622,467	5,330,751				
F2. First Prior Year	346,732	1,622,467	5,330,751			
F3. Second Prior Year	2,465,285	346,732	1,622,467	5,330,751		
F4. Third Prior Year	(1,770,872)	2,465,285	346,732	1,622,467	5,330,751	
F5. Fourth Prior Year	<u>(4,317,459)</u>	<u>(1,770,872)</u>	<u>2,465,285</u>	<u>346,732</u>	<u>1,622,467</u>	<u>5,330,751</u>
F6. Total Recognized Investment Gain	(1,653,847)	7,994,363	9,765,235	7,299,950	6,953,218	5,330,751
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 212,833,318	\$ 251,536,756				
H. Difference Between Market & Actuarial Values	\$ 10,689,763	\$ 29,349,154	\$ 19,583,919	\$ 12,283,969	\$ 5,330,751	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

*This is the actuarial value as reported by the previous actuary. It differs from the method in the table above by \$5,402. The difference is not material.

SCHEDULE C

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected by the prior actuarial firm based on the actuarial experience study prepared as of June 30, 2005, submitted January 12, 2006, and adopted by the Board on January 19, 2006, with the exception of the health care cost trend rate which was adopted by the Board on November 15, 2007.

INVESTMENT RATE OF RETURN: 7.75% per annum, compounded annually for retirement benefits. A blended rate is necessary to meet GASB Statement 43 requirements for insurance benefits. The current blended rate for KERS non-hazardous is 4.50% and for KERS hazardous is 7.75%.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases for both non-hazardous and hazardous members are as follows and include inflation at 3.50% per annum:

Service	Annual Rates of				
	Merit & Seniority		Base (Economy)	Increase Next Year	
	Non-Hazardous	Hazardous		Non-Hazardous	Hazardous
0-1	10.0%	11.0%	3.5%	13.5%	14.5%
1-2	3.5	4.0	3.5	7.0	7.5
2-3	2.0	3.5	3.5	5.5	7.0
3-4	1.5	3.0	3.5	5.0	6.5
4-5	1.5	2.5	3.5	5.0	6.0
5-6	1.0	2.0	3.5	4.5	5.5
6-7	1.0	1.5	3.5	4.5	5.0
7-8	1.0	1.5	3.5	4.5	5.0
8-9	0.5	1.0	3.5	4.0	4.5
9-10	0.5	1.0	3.5	4.0	4.5
10 & over	0.5	0.5	3.5	4.0	4.0

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of death, disability, withdrawal and retirement are shown in the following tables:

Non-Hazardous Members

Age	Withdrawal and Vesting*	Death		Disability	Service Retirement**
		Male	Female		
20	6.00%	0.05%	0.03%	0.05%	
25	5.40	0.07	0.03	0.07	
30	4.80	0.08	0.04	0.09	
35	3.60	0.09	0.05	0.13	
40	2.66	0.11	0.07	0.20	
45	1.98	0.16	0.10	0.33	
50	1.92	0.26	0.14	0.56	
55	1.08	0.44	0.23	0.92	8.0%
60	0.75	0.80	0.44	1.46	10.0
65		1.45	0.86		25.0
70		2.37	1.37		25.0
75					100.0

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 15.0%, 14.0%, 10.0%, 8.0% and 6.0%, respectively.

** If service is at least 27 years, the rate is 25%. All rates are doubled during the window period expiring January 1, 2009, for those eligible for enhanced benefits.

Hazardous Members

Age	Withdrawal and Vesting*	Death**			Service Retirement***	
		Male	Female	Disability	Service	Rate
20	6.00%	0.05%	0.03%	0.07%	20	20.0%
25	5.40	0.07	0.03	0.09	25	20.0
30	4.80	0.08	0.04	0.12	30	35.0
35	3.60	0.09	0.05	0.17	35	60.0
40	2.66	0.11	0.07	0.27		
45	1.98	0.16	0.10	0.44		
50	1.92	0.26	0.14	0.75		
55	1.08	0.44	0.23	1.23		
60	0.75	0.80	0.44	1.95		

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 15.0%, 14.0%, 10.0%, 8.0% and 6.0%, respectively.

** 75% are presumed to be non-duty related, and 25% are assumed to be duty related.

*** The annual rate of service retirement is 100% at age 65.

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

Year	Trend
2008	12.0%
2009	11.0
2010	10.0
2011	9.0
2012	8.0
2013	7.0
2014	6.0
2015 and beyond	5.0

AGE RELATED MORBIDITY: Per capita costs are adjusted to reflect expected 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 beyond	0.0

ANTICIPATED PLAN PARTICIPATION: The assumed annual rates of plan participation are as follows:

Medical	Non-Hazardous	Hazardous
Participation	90%	100%

Following are charts detailing expected premiums for pre- and post-Medicare for the year following the valuation date.

**MEDICAL INSURANCE CONTRIBUTION RATES
PRE-MEDICARE ELIGIBLE**

2007					
	Single	Parent Plus	Couple	Family	
TOTAL PREMIUMS					
Essential	N/A	\$ 583.28	\$ 895.50	\$ 998.64	
Enhanced	\$ 457.70	\$ 702.02	\$ 1,074.84	\$ 1,197.92	
Premier	\$ 473.72	\$ 729.74	\$ 1,110.88	\$ 1,237.96	
Select	\$ 443.30	\$ 664.94	\$ 934.94	\$ 1,066.60	

2008					
	Single	Parent Plus	Couple	Family	
TOTAL PREMIUMS					
Essential	N/A	\$ 617.12	\$ 947.44	\$ 1,056.56	
Enhanced	\$ 484.24	\$ 742.74	\$ 1,137.18	\$ 1,267.40	
Premier	\$ 501.20	\$ 772.06	\$ 1,175.32	\$ 1,309.76	
Select	\$ 469.00	\$ 703.50	\$ 989.18	\$ 1,128.48	

MEDICARE ELIGIBLE

Effective January 1, 2008	Self-Supporting (Used for OPEB claims cost)	Funding rates (Used for Retiree Contribution Amounts)
Available Plan		
Kentucky Retirement System Health Plan - Medical Only	\$ 144.00	\$ 143.00
Kentucky Retirement System Health Plan - PLUS	\$ 211.00	\$ 260.00
Kentucky Retirement System Health Plan - PREMIUM	\$ 354.00	\$ 329.00

Above amounts are shown as average retiree costs. In the valuation, the claims costs are converted to age 65 amounts and age adjusted.

DEATH AFTER RETIREMENT: The rates of mortality for the period after service retirement are according to the 1983 Group Annuity Mortality Table for all retired members and beneficiaries as of June 30, 2007 and the 1994 Group Annuity Mortality Table for all other members. The Group Annuity Mortality Table set forward 5 years is used for the period after disability retirement.

PERCENT MARRIED: 100% of employees are assumed to be married, with the wife 3 years younger than the husband.

DEPENDENT CHILDREN: For hazardous members' duty-related death benefits, it is assumed that the member is survived by two dependent children each age 6.

UNUSED SICK LEAVE: It is assumed that a member will be granted one-half year of service credit for unused sick leave at termination of employment.

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 and is projected forward using the healthcare trend assumption shown above. 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.

ASSETS: 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 market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

SCHEDULE D

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

This schedule summarizes the major retirement benefit provisions of KERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: July 1 through June 30

Non-Hazardous Normal Retirement:

<i>Age Requirement</i>	65
<i>Service Requirement</i>	None
<i>Amount</i>	If a member has at least 48 months of service, the monthly benefit is 1.97% times final average compensation times years of service. For members who were participants in any one of the state retirement systems from January 1, 1998 through January 1, 1999, the benefit factor is 2.00%. For these members who retire between January 1, 1999 and January 31, 2009 with at least 240 months of service, the benefit factor is 2.20%.

Final compensation is the average salary during the five highest paid fiscal years. If the months of service credit during the highest five-year period are less than forty-eight, one or more additional fiscal years shall be used. For a non-hazardous member whose effective retirement date is between August 1, 2001 and January 1, 2009, and whose total service credit is at least 27 years and whose age and years of service total at least 75, final compensation is based on three years rather than five years. If the months of service credit during the highest three-year period are less than twenty-four, one or more additional fiscal years shall be used.

Hazardous Normal Retirement:

<i>Age Requirement</i>	55
<i>Service Requirement</i>	None
<i>Amount</i>	If a member has at least 60 months of service, the monthly benefit is 2.49% times final average compensation times years of service.

Final compensation is the average salary during the three highest paid fiscal years. If the months of service credit during the highest three-year period are less than twenty-four, one or more additional fiscal years shall be used.

If a member has less than 60 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

Non-Hazardous Early Retirement:

<i>Requirement</i>	Age 55 with 60 months of service or any age with 25 years of service.
<i>Amount</i>	Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65 or has less than 27 years of service, whichever is smaller.

Hazardous Early Retirement:

<i>Requirement</i>	Age 50 with 15 years of service or any age with 20 years of service.
<i>Amount</i>	Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 55 or has less than 20 years of service, whichever is smaller.

Non-Hazardous Disability:

<i>Age Requirement</i>	None
<i>Service Requirement</i>	60 months
<i>Members whose participation began before 8/1/2004</i>	<p>Normal retirement benefit except that service credit will be added to total service for the period from the last day of plan employment to the member's 65th birthday or until the combined total service as of the last day of paid employment and added service equals 25 years. The total amount of service credit added shall not exceed the member's actual service credit on the last day of paid employment. For members with at least 25 years of service but less than 27 years service, total service shall be 27 years. For employees with 27 or more years of service credit, actual service will be used.</p> <p>A contributing member in a non-hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of the member's final monthly rate of pay for each dependent child. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay.</p>
<i>Members whose participation began on or after 8/1/2004</i>	Normal retirement benefit based on actual service with no penalty or, if larger, 20% of the Final Rate of Pay. May apply for disability even after normal retirement age.

Hazardous Disability:

Age Requirement

None

Service Requirement

60 months

Members whose participation began before 8/1/2004

Normal retirement benefit except that service credit will be added to total service for the period from the last day of plan employment to the member's 55th birthday or until the combined total service as of the last day of paid employment and added service equals 20 years. The total amount of service credit added shall not exceed the member's actual service credit on the last day of paid employment. For employees with 20 or more years of service credit, actual service credit will be used.

A member in a hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of his final monthly rate of pay for each dependent child. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay.

Members whose participation began on or after 8/1/2004

Normal retirement benefit based on actual service with no penalty or, if larger, 25% of the Final Rate of Pay. May apply for disability even after normal retirement age.

Vesting:

Age Requirement

None

Service Requirement

60 months. Service purchased after August 1, 2004 does not count toward vesting insurance benefits. Service purchased by employees who began participating on or after August 1, 2004 does not count toward vesting retirement benefits.

Amount

Normal retirement benefit deferred to normal retirement age or reduced benefit payable at early retirement age.

Normal Retirement Age

65 for non-hazardous members and 55 for hazardous members.

Pre-Retirement Death Benefit (not in line of duty):

<i>Requirement</i>	Any age with 60 months of service or age 65 with 48 months of service.
<i>Amount</i>	Benefit equal to the benefit the member would have received had the member retired on the day before the date of death and elected a 100% joint and survivor form. Benefit is actuarially reduced if member is less than age 55 at date of death.

Spouse's Pre-Retirement Death Benefit (in line of duty):

<i>Requirement</i>	None
<i>Amount</i>	The spouse may choose (1) a \$10,000 lump sum payment and monthly payments of 25% of the member's final monthly rate of pay or (2) benefits based on the member's age, years of service and final compensation at date of death.

Dependent Non-Spouse's Death Benefit (in line of duty) – Hazardous Plan:

<i>Requirement</i>	None
<i>Amount</i>	The non-spouse may choose (1) a \$10,000 lump sum payment or (2) benefits based upon the member's age, years of service and final compensation at date of death.

Dependent Child's Death Benefit (in line of duty):

<i>Requirement</i>	None
<i>Amount</i>	10% of member's final monthly rate of pay up to a maximum of 40%.

Post-Retirement Death Benefit:

<i>Lump-sum Benefit</i>	\$5,000
<i>Husband and Wife</i>	The choice of payment option selected by the member will determine the monthly benefits provided to the beneficiary upon the member's death.

Insurance Plan for Retirees:

Members whose participation began before July 1, 2003

The Retirement System pays a portion of medical premiums for retirees, and in the case of hazardous duty retirees, their dependents and beneficiaries. The Insurance Fund will pay 0%, 25%, 50%, 75%, or 100% of the premiums depending on retiree eligibility as reported by the System. For Medicare-eligible retirees, the percentage paid by the Insurance Fund is applied to the funding rate premiums rather than the self-supporting amounts.

Members whose participation began on or after July 1, 2003

The Retirement System pays \$11.21 per month per year of service toward medical premiums for non-hazardous retirees, \$16.82 per month per year of service for hazardous retirees, and \$11.21 per month per year of service for surviving spouses of hazardous employees. "Line of duty" insurance benefits will be calculated as if the member had at least 20 years of hazardous service. These amounts are shown as of the valuation date and are indexed annually based on the CPI.

Member Contributions:

Non-hazardous Members

5% of salary.

Hazardous Members

8% of salary.

SCHEDULE E

DETAILED TABULATIONS OF THE DATA

**Schedule of Non-Hazardous Retired Members Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending June 30	2002*	2003*	2004*	2005*	2006	2007
			<u>Number</u>			
Beginning of Year	N/A	26,703	27,233	28,892	30,770	32,140
Added	N/A	2,148	2,473	2,481	2,481	2,440
Removed	N/A	1,618	814	603	1,111	731
End of Year	N/A	27,233	28,892	30,770	32,140	33,849
			<u>Annual Allowances</u>			
Beginning of Year	N/A	N/A	\$ 393,048,800	\$ 449,410,400	\$ 509,347,800	\$ 566,167,003
Added	N/A	48,272,600	57,329,301	56,489,600	65,942,585	65,965,990
Removed	N/A	13,060,300	6,092,500	5,298,200	9,123,382	6,697,577
End of Year	N/A	\$ 393,048,800	\$ 449,410,400	\$ 509,347,800	\$ 566,167,003	\$ 625,435,416
% Increase in Allowances	N/A	N/A	14.34%	13.34%	11.31%	10.47%
Average Annual Allowance	N/A	\$ 14,433	\$ 15,555	\$ 16,553	\$ 17,611	\$ 18,477

*Reported by prior actuarial firm.

**Schedule of Hazardous Retired Members Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending June 30	2002*	2003*	2004*	2005*	2006	2007
			<u>Number</u>			
Beginning of Year	N/A	1,208	1,357	1,549	1,752	1,980
Added	N/A	170	227	234	256	241
Removed	N/A	21	35	31	28	19
End of Year	N/A	1,357	1,549	1,752	1,980	2,202
			<u>Annual Allowances</u>			
Beginning of Year	N/A	N/A	\$ 12,974,700	\$ 16,099,000	\$ 19,640,700	\$ 23,381,537
Added	N/A	2,333,400	3,070,600	3,415,500	3,929,666	4,509,381
Removed	N/A	130,400	155,000	191,000	188,829	362,129
End of Year	N/A	\$ 12,974,700	\$ 16,099,000	\$ 19,640,700	\$ 23,381,537	\$ 27,528,789
% Increase in Allowances	N/A	N/A	24.08%	22.00%	19.25%	17.74%
Average Annual Allowance	N/A	\$ 9,561	\$ 10,393	\$ 11,210	\$ 11,809	\$ 12,502

*Reported by prior actuarial firm.

**Non-Hazardous
Retired Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	2,890	\$ 4,783,976.90	8,013	\$ 10,568,354.30	10,903	\$ 15,352,331.20
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	1,727	2,746,515.87	669	690,022.02	2,396	3,436,537.89
66-2/3% to Beneficiary	796	1,961,189.15	322	622,168.43	1,118	2,583,357.58
50% to Beneficiary	1,028	2,345,135.72	1,000	1,900,416.65	2,028	4,245,552.37
Pop-up Option	2,928	6,619,405.01	2,183	4,026,553.94	5,111	10,645,958.95
10 Years Certain	0	0.00	0	0.00	0	0.00
10 Years Certain & Life	954	1,365,179.78	1,759	2,310,820.09	2,713	3,675,999.87
Social Security Option						
Age 62 Basic	415	870,255.29	969	1,558,683.32	1,384	2,428,938.61
Age 62 Survivorship	889	1,740,822.89	554	913,575.01	1,443	2,654,397.90
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	1	1,740.53	0	0.00	1	1,740.53
15 Years Certain & Life	381	563,773.06	431	612,692.23	812	1,176,465.29
20 Years Certain & Life	358	725,538.40	388	615,184.20	746	1,340,722.60
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	62	79,695.74	202	260,141.03	264	339,836.77
PLSO 24 Month Basic	27	32,650.29	114	111,399.24	141	144,049.53
PLSO 36 Month Basic	123	94,108.29	279	176,240.72	402	270,349.01
PLSO 12 Month Survivor	78	131,527.17	57	87,566.60	135	219,093.77
PLSO 24 Month Survivor	64	70,227.11	55	65,510.39	119	135,737.50
PLSO 36 Month Survivor	187	156,541.41	108	70,051.00	295	226,592.41
Total	12,908	\$ 24,288,282.61	17,103	\$ 24,589,379.17	30,011	\$ 48,877,661.78

**Hazardous
Retired Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	285	\$ 293,325.12	209	\$ 176,389.63	494	\$ 469,714.75
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	158	164,446.15	14	11,736.59	172	176,182.74
66-2/3% to Beneficiary	60	69,494.80	10	11,929.78	70	81,424.58
50% to Beneficiary	104	145,065.21	18	25,010.38	122	170,075.59
Pop-up Option	409	515,949.13	74	78,515.19	483	594,464.32
10 Years Certain	17	24,531.53	5	5,294.35	22	29,825.88
10 Years Certain & Life	86	76,705.59	37	26,129.57	123	102,835.16
Social Security Option						
Age 62 Basic	46	47,977.43	24	19,773.52	70	67,750.95
Age 62 Survivorship	106	140,997.28	15	11,539.87	121	152,537.15
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	0	0.00	0	0.00	0	0.00
15 Years Certain & Life	38	43,667.38	10	9,458.01	48	53,125.39
20 Years Certain & Life	37	38,142.86	15	22,635.58	52	60,778.44
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	12	12,564.05	10	10,108.77	22	22,672.82
PLSO 24 Month Basic	13	13,931.13	6	3,626.21	19	17,557.34
PLSO 36 Month Basic	34	31,366.10	22	20,240.15	56	51,606.25
PLSO 12 Month Survivor	15	18,027.93	4	3,482.59	19	21,510.52
PLSO 24 Month Survivor	16	20,428.33	8	9,969.03	24	30,397.36
PLSO 36 Month Survivor	43	37,433.72	13	15,774.62	56	53,208.34
Total	1,479	\$ 1,694,053.74	494	\$ 461,613.84	1,973	\$ 2,155,667.58

**Non-Hazardous
Beneficiary Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	4	\$ 1,293.46	21	\$ 18,848.23	25	\$ 20,141.69
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	213	151,088.08	1,602	1,290,351.76	1,815	1,441,439.84
66-2/3% to Beneficiary	23	18,904.96	280	201,573.78	303	220,478.74
50% to Beneficiary	78	42,144.11	469	228,744.21	547	270,888.32
Pop-up Option	66	88,898.18	293	324,764.24	359	413,662.42
10 Years Certain	46	48,650.31	60	62,145.99	106	110,796.30
10 Years Certain & Life	43	45,138.18	62	64,302.71	105	109,440.89
Social Security Option						
Age 62 Basic	0	0.00	2	1,142.59	2	1,142.59
Age 62 Survivorship	30	31,663.65	192	270,417.38	222	302,081.03
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	10	3,742.86	10	3,742.86
Dependent Child	2	545.74	2	769.93	4	1,315.67
Refund	0	0.00	5	4,831.97	5	4,831.97
15 Years Certain & Life	28	31,764.86	63	63,157.84	91	94,922.70
20 Years Certain & Life	36	35,954.10	76	85,982.04	112	121,936.14
5 Years Certain	44	47,600.98	50	47,539.84	94	95,140.82
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	1	547.17	0	0.00	1	547.17
PLSO 36 Month Basic	1	577.75	10	6,531.73	11	7,109.48
PLSO 12 Month Survivor	2	2,857.65	4	5,270.96	6	8,128.61
PLSO 24 Month Survivor	1	2,174.15	4	1,741.27	5	3,915.42
PLSO 36 Month Survivor	4	1,236.09	11	9,061.92	15	10,298.01
Total	622	\$ 551,039.42	3,216	\$ 2,690,921.25	3,838	\$ 3,241,960.67

**Hazardous
Beneficiary Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	0	\$ 0.00	2	\$ 285.41	2	\$ 285.41
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	7	2,894.39	82	55,216.04	89	58,110.43
66-2/3% to Beneficiary	0	0.00	7	2,674.68	7	2,674.68
50% to Beneficiary	1	416.94	16	5,604.39	17	6,021.33
Pop-up Option	4	1,794.18	27	14,070.38	31	15,864.56
10 Years Certain	2	2,375.54	12	9,335.37	14	11,710.91
10 Years Certain & Life	3	2,338.91	9	5,718.47	12	8,057.38
Social Security Option						
Age 62 Basic	0	0.00	0	0.00	0	0.00
Age 62 Survivorship	1	20.09	12	9,857.93	13	9,878.02
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	8	2,457.69	7	2,057.65	15	4,515.34
Refund	0	0.00	3	1,939.67	3	1,939.67
15 Years Certain & Life	3	1,136.89	1	754.11	4	1,891.00
20 Years Certain & Life	0	0.00	4	1,066.52	4	1,066.52
5 Years Certain	6	6,696.57	8	6,417.21	14	13,113.78
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	1	331.54	0	0.00	1	331.54
PLSO 12 Month Survivor	0	0.00	2	2,214.06	2	2,214.06
PLSO 24 Month Survivor	0	0.00	1	723.48	1	723.48
PLSO 36 Month Survivor	0	0.00	0	0.00	0	0.00
Total	36	\$ 20,462.74	193	\$ 117,935.37	229	\$ 138,398.11

**Non-Hazardous Members
Retired and Beneficiary Information June 30, 2007
Tabulated by Attained Ages**

Attained Age	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	117	\$ 2,382,671	64	\$ 630,023	71	\$ 536,414	252	\$ 3,549,108
45-49	967	\$ 26,692,254	118	\$ 1,324,368	64	\$ 690,007	1,149	\$ 28,706,629
50-54	2,813	\$ 83,804,037	220	\$ 2,517,441	135	\$ 1,709,496	3,168	\$ 88,030,974
55-59	4,817	\$ 134,818,070	315	\$ 3,824,171	220	\$ 3,230,210	5,352	\$ 141,872,451
60-64	5,023	\$ 117,055,386	356	\$ 4,050,610	295	\$ 4,425,066	5,674	\$ 125,531,062
65-69	4,416	\$ 78,724,732	341	\$ 3,785,637	356	\$ 4,685,643	5,113	\$ 87,196,012
70-74	3,429	\$ 49,772,736	256	\$ 2,497,603	438	\$ 5,403,786	4,123	\$ 57,674,125
75-79	2,782	\$ 35,958,370	104	\$ 971,210	470	\$ 5,772,672	3,356	\$ 42,702,252
80-84	2,106	\$ 23,306,398	51	\$ 382,748	562	\$ 5,393,577	2,719	\$ 29,082,723
85-89	1,134	\$ 10,171,319	31	\$ 212,824	574	\$ 3,880,088	1,739	\$ 14,264,231
90 & Over	541	\$ 3,593,536	10	\$ 55,756	653	\$ 3,176,557	1,204	\$ 6,825,849
Totals	28,145	\$ 566,279,509	1,866	\$ 20,252,391	3,838	\$ 38,903,516	33,849	\$ 625,435,416

**Hazardous Members
Retired and Beneficiary Information June 30, 2007
Tabulated by Attained Ages**

Attained Age	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	35	\$ 552,504	11	\$ 87,136	24	\$ 119,389	70	\$ 759,029
45-49	108	\$ 2,022,650	11	\$ 98,682	9	\$ 59,152	128	\$ 2,180,484
50-54	239	\$ 4,345,293	20	\$ 197,644	18	\$ 125,028	277	\$ 4,667,965
55-59	418	\$ 6,794,945	39	\$ 322,128	20	\$ 196,385	477	\$ 7,313,458
60-64	442	\$ 5,862,413	18	\$ 122,300	32	\$ 205,982	492	\$ 6,190,695
65-69	298	\$ 3,091,600	7	\$ 24,476	37	\$ 328,180	342	\$ 3,444,256
70-74	187	\$ 1,394,823	13	\$ 31,778	31	\$ 169,417	231	\$ 1,596,018
75-79	89	\$ 505,507	2	\$ 5,945	31	\$ 181,682	122	\$ 693,134
80-84	28	\$ 303,838			15	\$ 144,546	43	\$ 448,384
85-89	7	\$ 100,518			8	\$ 80,998	15	\$ 181,516
90 & Over	1	\$ 3,836			4	\$ 50,014	5	\$ 53,850
Totals	1,852	\$ 24,977,927	121	\$ 890,089	229	\$ 1,660,773	2,202	\$ 27,528,789

**Total Non-Hazardous Active Members as of June 30, 2007
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date								Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 26	27 - 29	30+	
Under 20	226								226
Avg Pay	\$25,127								\$25,127
20-24	1,715	86							1,801
Avg Pay	\$24,312	\$30,996							\$24,631
25-29	3,698	887	29						4,614
Avg Pay	\$28,024	\$30,650	\$34,376						\$28,569
30-34	2,765	2,230	470	12					5,477
Avg Pay	\$30,789	\$35,117	\$36,846	\$50,686					\$33,114
35-39	2,754	1,917	1,333	512	46				6,562
Avg Pay	\$30,506	\$36,802	\$40,918	\$42,504	\$51,267				\$35,542
40-44	1,875	1,614	1,123	1,029	742	156	4		6,543
Avg Pay	\$31,255	\$36,890	\$41,827	\$43,588	\$48,560	\$52,567	\$30,255		\$38,869
44-49	1,794	1,562	1,006	899	849	352	460	84	7,006
Avg Pay	\$31,787	\$36,122	\$39,851	\$43,694	\$48,506	\$52,922	\$54,927	\$53,112	\$40,302
50-54	1,556	1,439	1,014	826	707	317	387	427	6,673
Avg Pay	\$33,025	\$36,219	\$39,834	\$42,671	\$47,068	\$50,813	\$51,133	\$58,032	\$40,926
55-59	1,139	1,124	793	691	597	240	263	413	5,260
Avg Pay	\$34,845	\$37,014	\$40,593	\$41,813	\$45,658	\$50,663	\$52,131	\$56,614	\$41,613
60-64	492	643	422	434	287	115	100	177	2,670
Avg Pay	\$34,444	\$36,279	\$40,087	\$41,451	\$45,927	\$50,958	\$53,461	\$64,437	\$41,563
65-69	120	184	130	150	62	21	28	66	761
Avg Pay	\$37,928	\$37,992	\$38,048	\$40,409	\$42,935	\$51,714	\$50,080	\$61,332	\$41,718
70 & over	38	61	54	69	39	11	17	31	320
Avg Pay	\$38,059	\$28,509	\$34,663	\$37,999	\$40,927	\$45,674	\$33,688	\$65,942	\$38,733
Totals	18,172	11,747	6,374	4,622	3,329	1,212	1,259	1,198	47,913
Avg Pay	\$30,255	\$35,793	\$40,200	\$42,690	\$47,325	\$51,604	\$52,587	\$58,531	\$37,155

**Total Hazardous Active Members as of June 30, 2007
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date								Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 26	27 - 29	30+	
Under 20	14								14
Avg Pay	\$22,666								\$22,666
20-24	206	4							210
Avg Pay	\$25,352	\$32,034							\$25,480
25-29	442	57							499
Avg Pay	\$26,109	\$29,108							\$26,452
30-34	374	185	30						589
Avg Pay	\$27,789	\$33,124	\$34,889						\$29,826
35-39	329	179	121	35	2				666
Avg Pay	\$27,350	\$33,651	\$37,966	\$40,006	\$55,902				\$31,723
40-44	227	137	98	136	14	2			614
Avg Pay	\$28,420	\$33,751	\$40,463	\$40,984	\$44,679	\$44,220			\$34,737
44-49	164	130	81	128	30	2	3	1	539
Avg Pay	\$30,124	\$33,965	\$38,799	\$43,821	\$48,460	\$53,016	\$38,728	\$54,324	\$36,805
50-54	157	133	74	121	21	8	8	4	526
Avg Pay	\$30,953	\$36,537	\$37,914	\$42,222	\$48,235	\$49,365	\$52,305	\$68,772	\$37,519
55-59	126	113	70	114	13	2	1	3	442
Avg Pay	\$28,175	\$38,488	\$37,409	\$42,980	\$46,273	\$46,650	\$40,656	\$50,904	\$36,891
60-64	45	53	35	61	8	1	2		205
Avg Pay	\$34,568	\$38,933	\$39,887	\$46,417	\$48,231	\$63,000	\$33,804		\$40,795
65-69	8	15	6	7				1	37
Avg Pay	\$28,995	\$37,674	\$37,520	\$51,017				\$70,992	\$39,197
70 & over	1	3	2	2					8
Avg Pay	\$21,900	\$32,320	\$27,054	\$41,028					\$31,878
Totals	2,093	1,009	517	604	88	15	14	9	4,349
Avg Pay	\$27,751	\$34,601	\$38,391	\$42,818	\$47,630	\$49,713	\$45,921	\$61,457	\$33,304



**Report on the Annual Valuation of the
County Employees Retirement System**

Prepared as of June 30, 2007

November 19, 2007

Board of Trustees
Kentucky Retirement Systems
Perimeter Park West
1260 Louisville Road
Frankfort, KY 40601

Dear Members of the Board:

Presented in this report are the results for the annual actuarial valuation of the retirement and insurance benefits provided under the County Employees Retirement System (CERS). The purpose of the valuation was to measure the System's funding progress and to determine the required employer contribution rates for the fiscal year beginning July 1, 2008.

The date of the valuation was June 30, 2007.

The valuation was based upon data, furnished by the Executive Director and the Kentucky Retirement Systems (KRS) staff, concerning active, inactive and retired members along with pertinent financial information. The complete cooperation of the KRS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the summary of results on page 1 and the comments on page 6.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA
Chief Executive Officer

Edward A. Macdonald, ASA, FCA, MAAA
President

TJC/EAM:kc

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**REPORT ON THE ANNUAL VALUATION OF THE
COUNTY EMPLOYEES RETIREMENT SYSTEM**

PREPARED AS OF JUNE 30, 2007

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2007, presents the results of the annual actuarial valuation the retirement and insurance benefits provided under the System. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results, broken down between non-hazardous and hazardous members, are summarized in the following table.

SUMMARY OF PRINCIPAL RESULTS

	CERS Non-Hazardous		CERS Hazardous		CERS Totals	
	6/30/2007	6/30/2006	6/30/2007	6/30/2006	6/30/2007	6/30/2006
Contributions for next fiscal year:						
Retirement	7.76%	6.98%	15.04%	15.01%		
Insurance	<u>12.75</u>	<u>20.51</u>	<u>27.62</u>	<u>39.52</u>	N/A	N/A
Total	20.51%	27.49%	42.66%	54.53%		
Funded status as of valuation date:						
Retirement						
Actuarial accrued liability	\$6,659,446,126	\$6,179,569,267	\$2,208,736,179	\$2,020,142,770	\$8,868,182,305	\$8,199,712,037
Actuarial value of assets	\$5,467,824,480	\$5,162,894,136	\$1,639,288,924	\$1,515,075,017	\$7,107,113,404	\$6,677,969,153
Unfunded liability on actuarial value of assets	\$1,191,621,646	\$1,016,675,131	\$569,447,255	\$505,067,753	\$1,761,068,901	\$1,521,742,884
Funded ratio on actuarial value of assets	82.11%	83.55%	74.22%	75.00%	80.14%	81.44%
Market value of assets	\$5,812,935,251	\$5,191,376,948	\$1,754,934,764	\$1,528,845,357	\$7,567,870,015	\$6,720,222,305
Unfunded liability on market value of assets	\$846,510,875	\$988,192,319	\$453,801,415	\$491,297,413	\$1,300,312,290	\$1,479,489,732
Funded ratio on market value of assets	87.29%	84.01%	79.45%	75.68%	85.34%	81.96%
Insurance						
Actuarial accrued liability	\$3,333,966,070	\$4,607,223,639	\$1,646,460,011	\$1,928,481,371	\$4,980,426,081	\$6,535,705,010
Actuarial value of assets	\$960,285,900	\$777,726,590	\$512,926,549	\$422,785,042	\$1,473,212,449	\$1,200,511,632
Unfunded liability on actuarial value of assets	\$2,373,680,170	\$3,829,497,049	\$1,133,533,462	\$1,505,696,329	\$3,507,213,632	\$5,335,193,378
Funded ratio on actuarial value of assets	28.80%	16.88%	31.15%	21.92%	29.58%	18.37%
Market value of assets	\$1,084,042,781	\$813,250,744	\$570,155,702	\$441,278,796	\$1,654,198,483	\$1,254,529,540
Unfunded liability on market value of assets	\$2,249,923,289	\$3,793,972,895	\$1,076,304,309	\$1,487,202,575	\$3,326,227,598	\$5,281,175,470
Funded ratio on market value of assets	32.52%	17.65%	34.63%	22.88%	33.21%	19.20%
Demographic data as of valuation date:						
Number of retired participants and beneficiaries	35,564	33,102	5,159	4,712	40,723	37,814
Number of vested former members	8,093	7,379	436	393	8,529	7,772
Number of former members due a refund	45,808	42,667	1,761	1,562	47,569	44,229
Number of active members	84,920	83,694	10,063	9,635	94,983	93,329
Total salary	\$2,076,848,328	\$1,982,437,473	\$458,998,956	\$426,927,550	\$2,535,847,284	\$2,409,365,023
Average salary	\$24,457	\$23,687	\$45,613	\$44,310	\$26,698	\$25,816

2. The valuation balance sheets showing the results of the valuation are given in Schedule A.
3. Comments on the valuation results are given in Section IV, comments on the experience and actuarial gains during the valuation year are given in Section V, and the rates of contribution payable by employers are given in Section VI.
4. There were no changes in benefit provisions since the last valuation. Since the previous valuation, the assumptions and methods were changed as follows:
 - Medical trend rates were changed to a range starting at 12.0% per year in 2008 and declining to an ultimate rate of 5.0% in 2015 and later
 - All accrued liability amortization bases were consolidated and reset to a new 30-year closed amortization period beginning with the June 30, 2007 valuation. In future years, the total unfunded accrued liability will be amortized over the remaining period.
5. Schedule B of this report presents the development of the actuarial value of assets. Schedule C details the actuarial assumptions and methods employed. Schedule D gives a summary of the benefit and contribution provisions of the plan.

SECTION II – MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following table summarizes the membership of the system as of June 30, 2007 upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Active Members

Employee Group	Number	Payroll	Group Averages		
			Salary	Age	Service
Non-Hazardous	84,920	\$2,076,848,328	\$24,457	45.9	8.1
Hazardous	10,063	458,998,956	45,613	38.6	8.1
Total in CERS	94,983	\$2,535,847,284	\$26,698	45.1	8.1

The following tables show a six-year history of active member valuation data.

SCHEDULE OF NON-HAZARDOUS CERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2002	79,850	\$1,688,460,789	\$21,145	4.3%
6/30/2003	82,288	1,796,451,180	21,831	3.2
6/30/2004	80,922	1,826,870,880	22,576	3.4
6/30/2005	81,240	1,885,275,000	23,206	2.8
6/30/2006	83,694	1,982,437,473	23,687	2.1
6/30/2007	84,920	2,076,848,328	24,457	3.3

SCHEDULE OF HAZARDOUS CERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2002	8,949	\$346,319,146	\$38,699	2.9%
6/30/2003	9,286	374,700,732	40,351	4.3
6/30/2004	9,349	392,562,624	41,990	4.1
6/30/2005	9,464	411,121,728	43,441	3.5
6/30/2006	9,635	426,927,550	44,310	2.0
6/30/2007	10,063	458,998,956	45,613	2.9

The following tables show the number and annual retirement allowances payable to retired members and their beneficiaries on the roll of the Retirement System as of the valuation date as well as certain group averages.

Non-Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	29,259	\$298,805,715	\$10,212	68.0
Disability	2,935	26,954,487	9,184	62.4
Beneficiary	3,370	22,951,818	6,811	66.1
Total in CERS	35,564	\$348,712,020	\$9,805	67.4

Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	4,183	\$101,476,153	\$24,259	58.6
Disability	359	5,221,913	14,546	51.9
Beneficiary	617	7,037,784	11,406	47.5
Total in CERS	5,159	\$113,735,850	\$22,046	56.8

This valuation also includes 56,098 inactive members (53,901 Non-Hazardous and 2,197 Hazardous; of which 8,093 Non-Hazardous are vested and 436 Hazardous are vested).

SECTION III – ASSETS

1. As of June 30, 2007 the total market value of assets amounted to \$9,222,068,498 as shown in the following table.

**MARKET VALUE OF ASSETS BY FUND
AS OF JUNE 30, 2007**

Member Group	Retirement	Insurance	CERS Total
Non-Hazardous	\$5,812,935,251	\$1,084,042,781	\$6,896,978,032
Hazardous	<u>1,754,934,764</u>	<u>570,155,702</u>	<u>2,325,090,466</u>
Total	\$7,567,870,015	\$1,654,198,483	\$9,222,068,498

2. The five-year smoothed market related actuarial value of assets used for the current valuation was \$8,580,325,853. Schedule B shows the development of the actuarial value of assets as of June 30, 2007. The following table shows the actuarial value of assets allocated among member groups.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	JUNE 30, 2007	JUNE 30, 2006
Retirement		
Non-Hazardous	\$ 5,467,824,480	\$ 5,162,894,136
Hazardous	<u>1,639,288,924</u>	<u>1,515,075,017</u>
Total	\$ 7,107,113,404	\$ 6,677,969,153
Insurance		
Non-Hazardous	\$ 960,285,900	\$ 777,726,590
Hazardous	<u>512,926,549</u>	<u>422,785,042</u>
Total	\$ 1,473,212,449	\$ 1,200,511,632
KERS Total		
Non-Hazardous	\$ 6,428,110,380	\$ 5,940,620,726
Hazardous	<u>2,152,215,473</u>	<u>1,937,860,059</u>
Total	\$ 8,580,325,853	\$ 7,878,480,785

SECTION IV - COMMENTS ON VALUATION

Schedule A of this report contains the valuation balance sheets which show the present and prospective assets and liabilities of the System as of June 30, 2007. Separate balance sheets are shown for each employee group as well as in total for all groups.

Retirement

1. The total valuation balance sheet on account of retirement benefits shows that the System has total prospective retirement benefit liabilities of \$11,110,325,257, of which \$4,682,884,754 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$181,849,084 is for the prospective benefits payable on account of inactive members and \$6,245,591,419 is for the prospective benefits payable on account of present active members. Against these retirement benefit liabilities the System has a total present actuarial value of assets of \$7,107,113,404 as of June 30, 2007. The difference of \$4,003,211,853 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of retirement benefits. Of this amount, \$1,218,271,703 is the present value of future contributions expected to be made by members, and the balance of \$2,784,940,150 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the System on account of retirement benefits consist of normal contributions, accrued liability contributions and contributions for administrative expenses. The valuation indicates that employer normal contributions at the rate of 3.94% of payroll for non-hazardous members and 7.83% of payroll for hazardous members are required to provide the benefits of the System for the average new member of CERS.
3. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$1,023,871,249. When this amount is subtracted from \$2,784,940,150, which is the present value of the total future contributions to be made by the employers, there remains \$1,761,068,901 as the amount of future accrued liability contributions.
4. For non-hazardous members, it is recommended that the accrued liability contribution rate payable by the Counties on account of retirement benefits be set at 3.23% of payroll. For hazardous members, it is recommended that the accrued liability contribution rate payable by the Counties on account of retirement benefits be set at 6.98% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$1,191,621,646 for non-hazardous members and \$569,447,255 for hazardous members over 30 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 3.50% each year.

5. For non-hazardous members, the contribution rate for administrative expenses is determined to be 0.59% of payroll. For hazardous members, the contribution rate for administrative expenses is determined to be 0.23% of payroll.

Insurance

1. The total valuation balance sheet on account of insurance benefits shows that the System has total prospective insurance benefit liabilities of \$6,371,671,123, of which \$1,815,390,183 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$216,491,201 is for the prospective benefits payable on account of inactive members and \$4,339,789,739 is for the prospective benefits payable on account of present active members. Against these insurance benefit liabilities the System has a total present actuarial value of assets of \$1,473,212,449 as of June 30, 2007. The difference of \$4,898,458,674 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of insurance benefits. Of this amount, \$0 is the present value of future contributions expected to be made by members, and the balance of \$4,898,458,674 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the System on account of insurance benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 6.17% of payroll for non-hazardous members and 13.65% of payroll for hazardous members are required to provide the benefits of the System for the average new member of CERS.
3. Prospective employer normal contributions on account of insurance benefits at the above rates have a present value of \$1,391,245,042. When this amount is subtracted from \$4,898,458,674, which is the present value of the total future contributions to be made by the employers, there remains \$3,507,213,632 as the amount of future accrued liability contributions.
4. For non-hazardous members, it is recommended that the accrued liability contribution rate payable by the Counties on account of insurance benefits be set at 6.43% of payroll. For hazardous members, it is recommended that the accrued liability contribution rate payable by the Counties on account of insurance benefits be set at 13.90% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$2,373,680,170 for non-hazardous members and \$1,133,533,462 for hazardous members over 30 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 3.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.15% of payroll for non-hazardous employees and 0.07% of payroll for hazardous employees.

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, 2007 is shown below (\$ millions).

**Experience Gain/(Loss)
Retirement Benefits**

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/06	\$ 1,016.7	\$ 505.1	\$ 1,521.8
(2)	Normal cost from last valuation	93.0	34.7	127.7
(3)	Expected employer contributions	<u>138.4</u>	<u>64.2</u>	<u>202.5</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .0775	75.3	36.9	115.0
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 1,046.6	\$ 512.5	\$ 1,562.0
(6)	Change due to plan amendments	0.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$ 1,046.6	\$ 512.5	\$ 1,562.0
(9)	Actual UAAL as of 6/30/07	\$ 1,191.6	\$ 569.4	\$ 1,761.0
(10)	Gain/(loss): (8) - (9)	\$ (145.0)	\$ (56.9)	\$ (199.0)
(11)	Accrued liabilities as of 6/30/06	\$ 6,179.6	\$ 2,020.1	\$ 8,199.7
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	(2.3)%	(2.8)%	(2.4)%

*Unfunded actuarial accrued liability.

**Experience Gain/(Loss)
Insurance Benefits**

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/06	\$ 3,829.5	\$ 1,505.7	\$ 5,335.2
(2)	Normal cost from last valuation	180.7	80.3	261.0
(3)	Expected employer contributions	<u>396.2</u>	<u>165.0</u>	<u>561.2</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .0775	280.1	110.1	390.2
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 3,894.1	\$ 1,531.1	\$ 5,425.2
(6)	Change due to plan amendments	0.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	(1,354.3)	(662.2)	(2,016.5)
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$ 2,539.8	\$ 868.9	\$ 3,408.7
(9)	Actual UAAL as of 6/30/07	\$ 2,373.7	\$ 1,133.5	\$ 3,507.2
(10)	Gain/(loss): (8) - (9)	\$ 166.1	\$ (264.6)	\$ (98.5)
(11)	Accrued liabilities as of 6/30/06	\$ 4,607.2	\$ 1,928.5	\$ 6,535.7
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	3.6 %	(13.7)%	(1.5)%

*Unfunded actuarial accrued liability.

**NON-HAZARDOUS CERS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (65.0)	\$ (48.5)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	1.9	1.4
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(5.8)	(4.3)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	16.8	12.5
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(1.3)	203.6
New Members. Additional unfunded accrued liability will produce a loss.	(12.1)	(9.0)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	53.4	33.3
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	5.8	4.3
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(138.7)</u>	<u>(27.2)</u>
Gain (or Loss) During Year From Financial Experience	\$ (145.0)	\$ 166.1
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>1,354.3</u>
Composite Gain (or Loss) During Year	\$ (145.0)	\$ 1,520.4

**HAZARDOUS CERS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (17.2)	\$ (16.4)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	1.4	1.3
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(1.5)	(1.4)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	5.4	5.2
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(7.1)	81.2
New Members. Additional unfunded accrued liability will produce a loss.	(4.3)	(4.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	21.4	15.4
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	1.9	1.8
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(56.9)</u>	<u>(347.6)</u>
Gain (or Loss) During Year From Financial Experience	\$ (56.9)	\$ (264.6)
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>662.2</u>
Composite Gain (or Loss) During Year	\$ (56.9)	\$ 397.6

**TOTAL CERS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (82.2)	\$ (64.9)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	3.3	2.7
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(7.3)	(5.7)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	22.2	17.7
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(8.4)	284.8
New Members. Additional unfunded accrued liability will produce a loss.	(16.4)	(13.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	74.8	48.7
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	7.7	6.1
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(195.6)</u>	<u>(374.8)</u>
Gain (or Loss) During Year From Financial Experience	\$ (201.9)	\$ (98.5)
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>2,016.5</u>
Composite Gain (or Loss) During Year	\$ (201.9)	\$ 1,918.0

SECTION VI – REQUIRED CONTRIBUTION RATES

The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by employers to the Retirement System. The following tables show the rates of contribution payable by employers as determined from the present valuation for the 2008/2009 fiscal year.

**Required Contribution Rates
Non-Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 157,840,473	7.60%
(2) Disability benefits	22,014,592	1.06
(3) Survivor benefits	5,815,175	0.28
(4) Total	\$ 185,670,240	8.94%
B. Member Contributions	\$ 103,842,416	5.00%
C. Employer Normal Cost: [A(4) - B]	\$ 81,827,824	3.94%
D. Administrative Expenses	\$ 12,218,992	0.59%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/06 Valuation:	\$ 47,494,100	2.29%
(2) Change due to:		
a. Active decrements	\$ 2,931,570	0.14%
b. Pay increases	73,149	0.00
c. Retiree mortality	(326,355)	(0.02)
d. Investment return	(3,004,719)	(0.14)
e. COLA	6,662,148	0.32
f. Assumption Change	0	0.00
g. Other	13,220,442	0.64
h. Total Change	\$ 19,556,235	0.94%
(3) UAAL Contribution Based on 6/30/07 Valuation: [E(1) +E(2)h]	\$ 67,050,335	3.23%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 161,097,151	7.76%

* Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 63,525,456	13.84%
(2) Disability benefits	6,517,785	1.42
(3) Survivor benefits	2,616,294	0.57
(4) Total	<u>\$ 72,659,535</u>	<u>15.83%</u>
B. Member Contributions	\$ 36,719,916	8.00%
C. Employer Normal Cost: [A(4) - B]	\$ 35,939,619	7.83%
D. Administrative Expenses	\$ 1,075,008	0.23%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/06 Valuation:	\$ 31,625,283	6.89%
(2) Change due to:		
a. Active decrements	\$ 669,591	0.15%
b. Pay increases	399,504	0.09
c. Retiree mortality	(106,909)	(0.02)
d. Investment return	(1,204,138)	(0.26)
e. COLA	3,196,030	0.70
f. Assumption Change	0	0.00
g. Other	(2,537,623)	(0.57)
h. Total Change	<u>\$ 416,455</u>	<u>0.09%</u>
(3) UAAL Contribution Based on 6/30/07 Valuation: [E(1) +E(2)h]	\$ 32,041,738	6.98%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	<u>\$ 69,056,365</u>	<u>15.04%</u>

* Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Non-Hazardous Insurance**

	Contribution for	Amount	% of Payroll
A.	Normal Cost:	\$ 128,130,634	6.17%
B.	Member Contributions*	\$ 0	0.00%
C.	Employer Normal Cost: [A - B]	\$ 128,130,634	6.17%
D.	Administrative Expenses	\$ 3,040,328	0.15%
E.	Unfunded Actuarial Accrued Liability**:	\$ 133,562,570	6.43%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	\$ 264,733,532	12.75%

*The liabilities are net of retiree contributions toward their healthcare

** Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Hazardous Insurance**

	Contribution for	Amount	% of Payroll
A.	Normal Cost:	\$ 62,655,896	13.65%
B.	Member Contributions*	\$ 0	0.00%
C.	Employer Normal Cost: [A - B]	\$ 62,655,896	13.65%
D.	Administrative Expenses	\$ 319,632	0.07%
E.	Unfunded Actuarial Accrued Liability**:	\$ 63,781,820	13.90%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	\$ 126,757,348	27.62%

*The liabilities are net of retiree contributions toward their healthcare

** Based on 30 year amortization of the UAAL from June 30, 2007

SECTION VII - ACCOUNTING INFORMATION

Governmental Accounting Standards Board Statements 25, 27, 43 and 45 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, 2007**

GROUP	NUMBER		
	Non-Hazardous	Hazardous	Total
Retirees and beneficiaries currently receiving benefits	35,564	5,159	40,723
Terminated employees entitled to benefits but not yet receiving benefits	53,901	2,197	56,098
Active Members	<u>84,920</u>	<u>10,063</u>	<u>94,983</u>
Total	174,385	17,419	191,804

Another such item is the Schedule of Funding Progress for retirement and insurance benefits separately as shown in the following tables.

**RETIREMENT BENEFITS
SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
Non-Hazardous Members						
6/30/2002	\$ 5,397,787,158	\$ 4,165,355,149	\$ (1,232,432,009)	129.6%	\$ 1,688,460,789	(73.0)%
6/30/2003	5,286,580,047	4,417,597,802	(868,982,245)	119.7	1,796,451,180	(48.4)
6/30/2004	5,187,851,530	4,936,459,488	(251,392,042)	105.1	1,826,870,880	(13.8)
6/30/2005	5,059,208,687	5,385,156,690	325,948,003	94.0	1,885,275,000	17.3
6/30/2006	5,162,894,136	6,179,569,267	1,016,675,131	83.5	1,982,437,473	51.3
6/30/2007	5,467,824,480	6,659,446,126	1,191,621,646	82.1	2,076,848,328	57.4
Hazardous Members						
6/30/2002	\$ 1,485,511,793	\$ 1,327,291,273	\$ (158,220,520)	111.9%	\$ 346,319,146	(45.7)%
6/30/2003	1,467,004,856	1,499,628,782	32,623,926	97.8	374,700,732	8.7
6/30/2004	1,457,612,042	1,640,830,120	183,218,078	88.8	392,562,624	46.7
6/30/2005	1,452,353,023	1,795,617,335	343,264,312	80.9	411,121,728	83.5
6/30/2006	1,515,075,017	2,020,142,770	505,067,753	75.0	426,927,550	118.3
6/30/2007	1,639,288,924	2,208,736,179	569,447,255	74.2	458,998,956	124.1
Total CERS Members						
6/30/2002	\$ 6,883,298,951	\$ 5,492,646,422	\$ (1,390,652,529)	125.3%	\$ 2,034,779,935	(68.3)%
6/30/2003	6,753,584,903	5,917,226,584	(836,358,319)	114.1	2,171,151,912	(38.5)
6/30/2004	6,645,463,572	6,577,289,608	(68,173,964)	101.0	2,219,433,504	(3.1)
6/30/2005	6,511,561,710	7,180,774,025	669,212,315	90.7	2,296,396,728	29.2
6/30/2006	6,677,969,153	8,199,712,037	1,521,742,884	81.4	2,409,365,023	63.2
6/30/2007	7,107,113,404	8,868,182,305	1,761,068,901	80.1	2,535,847,284	69.4

**INSURANCE BENEFITS
SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
Non-Hazardous Members						
6/30/2002	\$ 450,497,307	\$ 1,977,577,038	\$ 1,527,079,731	22.8%	\$ 1,688,460,789	90.4%
6/30/2003	520,060,105	2,176,963,259	1,656,903,154	23.9	1,796,451,180	92.2
6/30/2004	585,399,072	2,438,734,696	1,853,335,624	24.0	1,826,870,880	101.5
6/30/2005	663,941,949	2,788,754,654	2,124,812,705	23.8	1,885,275,000	112.7
6/30/2006	777,726,590	4,607,223,639	3,829,497,049	16.9	1,982,437,473	193.2
6/30/2007	960,285,900	3,333,966,070	2,373,680,170	28.8	2,076,848,328	114.3
Hazardous Members						
6/30/2002	\$ 234,683,878	\$ 781,184,974	\$ 546,501,096	30.0%	\$ 346,319,146	157.8%
6/30/2003	269,190,080	935,650,662	666,460,582	28.8	374,700,732	177.9
6/30/2004	310,578,162	1,025,684,477	715,106,315	30.3	392,562,624	182.2
6/30/2005	359,180,461	1,283,299,092	924,118,631	28.0	411,121,728	224.8
6/30/2006	422,785,042	1,928,481,371	1,505,696,329	21.9	426,927,550	352.7
6/30/2007	512,926,549	1,646,460,011	1,133,533,462	31.2	458,998,956	247.0
Total CERS Members						
6/30/2002	\$ 685,181,185	\$ 2,758,762,012	\$ 2,073,580,827	24.8%	\$ 2,034,779,935	101.9%
6/30/2003	789,250,185	3,112,613,921	2,323,363,736	25.4	2,171,151,912	107.0
6/30/2004	895,977,234	3,464,419,173	2,568,441,939	25.9	2,219,433,504	115.7
6/30/2005	1,023,122,410	4,072,053,746	3,048,931,336	25.1	2,296,396,728	132.8
6/30/2006	1,200,511,632	6,535,705,010	5,335,193,378	18.4	2,409,365,023	221.4
6/30/2007	1,473,212,449	4,980,426,081	3,507,213,632	29.6	2,535,847,284	138.3

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2007. Additional information as of the latest actuarial valuation follows.

Retirement Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2007	6/30/2007
Actuarial cost method	Entry Age	Entry Age
Amortization	Level percent Closed	Level percent Closed
Remaining amortization period	30 years	30 years
Asset valuation method	5 year smoothed Market	5 year smoothed Market
Actuarial assumptions		
Investment rate of return*	7.75%	7.75%
Projected salary increases*	4.0% - 13.5%	4.0% - 14.5%
Cost-of-living adjustment	None	None
*Includes inflation at	3.50%	3.50%

Insurance Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2007	6/30/2007
Actuarial cost method	Entry Age	Entry Age
Amortization	Level percent Closed	Level percent Closed
Remaining amortization period	30 years	30 years
Asset valuation method	5 year smoothed Market	5 year smoothed Market
Medical Trend Assumption	12.0% - 5.0%	12.0% - 5.0%
Year Ultimate Trend	2015	2015
Actuarial assumptions:		
Investment rate of return*	7.75%	7.75%
*Includes inflation at	3.50%	3.50%

SCHEDULE A

Valuation Balance Sheet and Solvency Test

The following valuation balance sheets show the assets and liabilities of the retirement system as of the current valuation date of June 30, 2007 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2006. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date.

**VALUATION BALANCE SHEETS
SHOWING THE ASSETS AND LIABILITIES OF THE
COUNTY EMPLOYEES RETIREMENT SYSTEM

RETIREMENT BENEFITS
NON-HAZARDOUS CERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 5,467,824,480	\$ 5,162,894,136
Prospective contributions		
Member contributions	\$ 879,530,367	\$ 849,924,564
Employer normal contributions	692,218,125	686,781,563
Unfunded accrued liability contributions	<u>1,191,621,646</u>	<u>1,016,675,131</u>
Total prospective contributions	<u>\$ 2,763,370,138</u>	<u>\$ 2,553,381,258</u>
 Total assets	 <u>\$ 8,231,194,618</u>	 <u>\$ 7,716,275,394</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 3,427,501,606	\$ 3,060,649,619
Present value of benefits payable on account of active members	4,641,682,555	4,506,180,371
Present value of benefits payable on account of inactive members	<u>162,010,457</u>	<u>149,445,404</u>
 Total liabilities	 <u>\$ 8,231,194,618</u>	 <u>\$ 7,716,275,394</u>

**VALUATION BALANCE SHEET
RETIREMENT BENEFITS
HAZARDOUS CERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 1,639,288,924	\$ 1,515,075,017
Prospective contributions		
Member contributions	\$ 338,741,336	\$ 316,488,370
Employer normal contributions	331,653,124	311,030,508
Unfunded accrued liability contributions	<u>569,447,255</u>	<u>505,067,753</u>
Total prospective contributions	<u>\$ 1,239,841,715</u>	<u>\$ 1,132,586,631</u>
 Total assets	 <u>\$ 2,879,130,639</u>	 <u>\$ 2,647,661,648</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 1,255,383,148	\$ 1,111,463,723
Present value of benefits payable on account of active members	1,603,908,864	1,519,497,030
Present value of benefits payable on account of inactive members	<u>19,838,627</u>	<u>16,700,895</u>
 Total liabilities	 <u>\$ 2,879,130,639</u>	 <u>\$ 2,647,661,648</u>

**VALUATION BALANCE SHEET
RETIREMENT BENEFITS
TOTAL CERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 7,107,113,404	\$ 6,677,969,153
Prospective contributions		
Member contributions	\$ 1,218,271,703	\$ 1,166,412,934
Employer normal contributions	1,023,871,249	997,812,071
Unfunded accrued liability contributions	<u>1,761,068,901</u>	<u>1,521,742,884</u>
Total prospective contributions	<u>\$ 4,003,211,853</u>	<u>\$ 3,685,967,889</u>
 Total assets	 <u><u>\$ 11,110,325,257</u></u>	 <u><u>\$ 10,363,937,042</u></u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 4,682,884,754	\$ 4,172,113,342
Present value of benefits payable on account of active members	6,245,591,419	6,025,677,401
Present value of benefits payable on account of inactive members	<u>181,849,084</u>	<u>166,146,299</u>
 Total liabilities	 <u><u>\$ 11,110,325,257</u></u>	 <u><u>\$ 10,363,937,042</u></u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS
NON-HAZARDOUS CERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 960,285,900	\$ 777,726,590
Prospective contributions		
Normal contributions	\$ 904,995,678	\$ 1,300,307,643
Unfunded accrued liability contributions	<u>2,373,680,170</u>	<u>3,829,497,049</u>
Total prospective contributions	<u>\$ 3,278,675,848</u>	<u>\$ 5,129,804,692</u>
 Total assets	 <u>\$ 4,238,961,748</u>	 <u>\$ 5,907,531,282</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 1,177,386,474	\$ 1,435,145,235
Present value of benefits payable on account of active members	2,866,833,342	4,212,931,139
Present value of benefits payable on account of inactive members	<u>194,741,932</u>	<u>259,454,908</u>
 Total liabilities	 <u>\$ 4,238,961,748</u>	 <u>\$ 5,907,531,282</u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS
HAZARDOUS CERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 512,926,549	\$ 422,785,042
Prospective contributions		
Normal contributions	\$ 486,249,364	\$ 661,211,021
Unfunded accrued liability contributions	<u>1,133,533,462</u>	<u>1,505,696,329</u>
Total prospective contributions	<u>\$ 1,619,782,826</u>	<u>\$ 2,166,907,350</u>
 Total assets	 <u>\$ 2,132,709,375</u>	 <u>\$ 2,589,692,392</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 638,003,709	\$ 775,654,558
Present value of benefits payable on account of active members	1,472,956,397	1,802,021,119
Present value of benefits payable on account of inactive members	<u>21,749,269</u>	<u>12,016,715</u>
 Total liabilities	 <u>\$ 2,132,709,375</u>	 <u>\$ 2,589,692,392</u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS
TOTAL CERS MEMBERS**

	June 30, 2007	June 30, 2006
ASSETS		
Current actuarial value of assets	\$ 1,473,212,449	\$ 1,200,511,632
Prospective contributions		
Normal contributions	\$ 1,391,245,042	\$ 1,961,518,664
Unfunded accrued liability contributions	<u>3,507,213,632</u>	<u>5,335,193,378</u>
Total prospective contributions	<u>\$ 4,898,458,674</u>	<u>\$ 7,296,712,042</u>
 Total assets	 <u>\$ 6,371,671,123</u>	 <u>\$ 8,497,223,674</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 1,815,390,183	\$ 2,210,799,793
Present value of benefits payable on account of active members	4,339,789,739	6,014,952,258
Present value of benefits payable on account of inactive members	<u>216,491,201</u>	<u>271,471,623</u>
 Total liabilities	 <u>\$ 6,371,671,123</u>	 <u>\$ 8,497,223,674</u>

The following tables provide the solvency test for non-hazardous and hazardous CERS members.

**Solvency Test
Retirement Benefits
Non-Hazardous CERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 768,656,315	\$ 1,861,419,517	\$ 1,535,279,317	\$ 5,397,787,158	100.0%	100.0%	180.3%
6/30/2003*	759,938,261	2,068,481,586	1,589,177,955	5,286,580,047	100.0	100.0	154.7
6/30/2004*	814,908,627	2,478,195,080	1,643,355,781	5,187,851,530	100.0	100.0	115.3
6/30/2005*	837,513,907	2,814,210,355	1,733,432,428	5,059,208,687	100.0	100.0	81.2
6/30/2006	883,946,564	3,210,095,023	2,085,527,680	5,162,894,136	100.0	100.0	51.3
6/30/2007	920,126,096	3,589,512,063	2,149,807,967	5,467,824,480	100.0	100.0	44.6

*Reported by prior actuarial firm.

**Solvency Test
Retirement Benefits
Hazardous CERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 238,363,024	\$ 664,188,862	\$ 424,739,387	\$ 1,485,511,793	100.0%	100.0%	137.3%
6/30/2003*	227,629,402	769,804,746	502,194,634	1,467,004,856	100.0	100.0	93.5
6/30/2004*	256,366,204	851,354,443	533,109,473	1,457,612,042	100.0	100.0	65.6
6/30/2005*	264,913,465	960,052,305	570,651,565	1,452,353,023	100.0	100.0	39.8
6/30/2006	300,200,800	1,128,164,618	591,777,352	1,515,075,017	100.0	100.0	14.7
6/30/2007	317,007,367	1,275,221,775	616,507,037	1,639,288,924	100.0	100.0	7.6

*Reported by prior actuarial firm.

**. Solvency Test
Insurance Benefits
Non-Hazardous CERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 0	\$ 656,812,900	\$ 1,320,764,138	\$ 450,497,307	100.0%	68.6%	0.0%
6/30/2003*	0	799,777,264	1,377,185,995	520,060,105	100.0	65.0	0.0
6/30/2004*	0	955,930,091	1,482,804,605	585,399,072	100.0	61.2	0.0
6/30/2005*	0	1,144,219,107	1,644,535,547	663,941,949	100.0	58.0	0.0
6/30/2006	0	1,694,600,143	2,912,623,496	777,726,590	100.0	45.9	0.0
6/30/2007	0	1,372,128,406	1,961,837,664	960,285,900	100.0	70.0	0.0

*Reported by prior actuarial firm.

**. Solvency Test
Insurance Benefits
Hazardous CERS Members**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 0	\$ 343,821,677	\$ 437,363,297	\$ 234,683,878	100.0%	68.3%	0.0%
6/30/2003*	0	401,276,347	534,374,315	269,190,080	100.0	67.1	0.0
6/30/2004*	0	450,288,687	575,395,790	310,578,162	100.0	69.0	0.0
6/30/2005*	0	586,104,126	697,194,966	359,180,461	100.0	61.3	0.0
6/30/2006	0	787,671,273	1,140,810,098	422,785,042	100.0	53.7	0.0
6/30/2007	0	659,752,978	986,707,033	512,926,549	100.0	77.7	0.0

*Reported by prior actuarial firm.

SCHEDULE B

Development of Actuarial Value of Assets Retirement Benefits Non-Hazardous Members

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 5,059,208,687	\$ 5,162,894,136				
B. Market Value End of Year	5,191,376,948	5,812,935,251				
C. Market Value Beginning of Year	4,893,599,997	5,191,376,948				
D. Cash Flow						
D1. Contributions	203,205,884	246,240,158				
D2. Benefit Payments	(336,724,204)	(377,044,524)				
D3. Administrative Expenses	(12,797,224)	(12,218,992)				
D4. Investment Expenses	<u>(4,251,662)</u>	<u>(4,731,050)</u>				
D5. Net	(150,567,206)	(147,754,408)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	448,344,157	769,312,711				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	401,938,146	401,520,608				
E4. Amount for Phased-In Recognition	46,406,011	367,792,103				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	9,281,202	73,558,421				
F2. First Prior Year	(936,362)	9,281,202	73,558,421			
F3. Second Prior Year	24,906,205	(936,362)	9,281,202	73,558,421		
F4. Third Prior Year	(55,645,322)	24,906,205	(936,362)	9,281,202	73,558,421	
F5. Fourth Prior Year	<u>(125,291,214)</u>	<u>(55,645,322)</u>	<u>24,906,205</u>	<u>(936,362)</u>	<u>9,281,202</u>	<u>73,558,421</u>
F6. Total Recognized Investment Gain	(147,685,491)	51,164,144	106,809,466	81,903,261	82,839,623	73,558,421
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 5,162,894,136	\$ 5,467,824,480				
H. Difference Between Market & Actuarial Values	\$ 28,482,812	\$ 345,110,771	\$ 238,301,305	\$ 156,398,044	\$ 73,558,421	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Assets
Retirement Benefits
Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 1,452,353,023	\$ 1,515,075,017				
B. Market Value End of Year	1,528,845,357	1,754,934,764				
C. Market Value Beginning of Year	1,411,245,719	1,528,845,357				
D. Cash Flow						
D1. Contributions	89,031,633	105,203,362				
D2. Benefit Payments	(103,233,867)	(118,166,617)				
D3. Administrative Expenses	(1,112,916)	(1,075,008)				
D4. Investment Expenses	<u>(1,256,675)</u>	<u>(1,654,423)</u>				
D5. Net	(16,571,825)	(15,692,686)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	134,171,463	241,782,093				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	117,052,697	119,595,955				
E4. Amount for Phased-In Recognition	17,118,766	122,186,138				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	3,423,753	24,437,228				
F2. First Prior Year	286,557	3,423,753	24,437,228			
F3. Second Prior Year	7,052,555	286,557	3,423,753	24,437,228		
F4. Third Prior Year	(14,889,455)	7,052,555	286,557	3,423,753	24,437,228	
F5. Fourth Prior Year	<u>(33,632,288)</u>	<u>(14,889,455)</u>	<u>7,052,555</u>	<u>286,557</u>	<u>3,423,753</u>	<u>24,437,228</u>
F6. Total Recognized Investment Gain	(37,758,878)	20,310,638	35,200,093	28,147,538	27,860,981	24,437,228
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 1,515,075,017	\$ 1,639,288,924				
H. Difference Between Market & Actuarial Values	\$ 13,770,340	\$ 115,645,840	\$ 80,445,747	\$ 52,298,209	\$ 24,437,228	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Assets
Insurance Benefits
Non-Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 663,941,949	\$ 777,726,590				
B. Market Value End of Year	813,250,744	1,084,042,781				
C. Market Value Beginning of Year	668,485,367	813,250,744				
D. Cash Flow						
D1. Contributions	135,232,560	171,229,072				
D2. Benefit Payments	(72,918,573)	(85,198,699)				
D3. Administrative Expenses	(1,539,512)	(3,040,328)				
D4. Investment Expenses	<u>(741,200)</u>	<u>(720,918)</u>				
D5. Net	60,033,275	82,269,127				
E. Investment Income						
E1. Market Total: B.-C.-D5.	84,732,102	188,522,910				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	58,398,190	66,963,715				
E4. Amount for Phased-In Recognition	26,333,912	121,559,195				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	5,266,783	24,311,839				
F2. First Prior Year	1,195,664	5,266,783	24,311,839			
F3. Second Prior Year	8,317,853	1,195,664	5,266,783	24,311,839		
F4. Third Prior Year	(5,765,671)	8,317,853	1,195,664	5,266,783	24,311,839	
F5. Fourth Prior Year	<u>(13,661,453)</u>	<u>(5,765,671)</u>	<u>8,317,853</u>	<u>1,195,664</u>	<u>5,266,783</u>	<u>24,311,839</u>
F6. Total Recognized Investment Gain	(4,646,824)	33,326,468	39,092,139	30,774,286	29,578,622	24,311,839
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 777,726,590	\$ 960,285,900				
H. Difference Between Market & Actuarial Values	\$ 35,524,154	\$ 123,756,881	\$ 84,664,742	\$ 53,890,456	\$ 24,311,839	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Assets
Insurance Benefits
Hazardous Members**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 359,180,461	\$ 422,785,042				
B. Market Value End of Year	441,278,796	570,155,702				
C. Market Value Beginning of Year	360,938,669	441,278,796				
D. Cash Flow						
D1. Contributions	64,952,086	70,920,610				
D2. Benefit Payments	(29,717,549)	(31,607,270)				
D3. Administrative Expenses	(212,443)	(319,632)				
D4. Investment Expenses	<u>(391,835)</u>	<u>(379,910)</u>				
D5. Net	34,630,259	38,613,798				
E. Investment Income						
E1. Market Total: B.-C.-D5.	45,709,868	90,263,108				
E2. Assumed Rate	8.25%	7.75%				
E3. Amount for Immediate Recognition	31,613,937	36,090,023				
E4. Amount for Phased-In Recognition	14,095,931	54,173,085				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	2,819,186	10,834,617				
F2. First Prior Year	616,704	2,819,186	10,834,617			
F3. Second Prior Year	4,199,719	616,704	2,819,186	10,834,617		
F4. Third Prior Year	(3,032,540)	4,199,719	616,704	2,819,186	10,834,617	
F5. Fourth Prior Year	<u>(7,242,684)</u>	<u>(3,032,540)</u>	<u>4,199,719</u>	<u>616,704</u>	<u>2,819,186</u>	<u>10,834,617</u>
F6. Total Recognized Investment Gain	(2,639,615)	15,437,686	18,470,226	14,270,507	13,653,803	10,834,617
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 422,785,042	\$ 512,926,549				
H. Difference Between Market & Actuarial Values	\$ 18,493,754	\$ 57,229,153	\$ 38,758,927	\$ 24,488,420	\$ 10,834,617	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

SCHEDULE C

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected by the prior actuarial firm based on the actuarial experience study prepared as of June 30, 2005, submitted January 12, 2006, and adopted by the Board on January 19, 2006, with the exception of the health care cost trend rate which was adopted by the Board on November 15, 2007.

INVESTMENT RATE OF RETURN: 7.75% per annum, compounded annually for retirement and insurance benefits.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases for both non-hazardous and hazardous members are as follows and include inflation at 3.50% per annum:

Service	Annual Rates of				
	Merit & Seniority		Base (Economy)	Increase Next Year	
	Non-Hazardous	Hazardous		Non-Hazardous	Hazardous
0-1	10.0%	11.0%	3.5%	13.5%	14.5%
1-2	3.5%	4.0%	3.5%	7.0%	7.5%
2-3	2.0%	3.5%	3.5%	5.5%	7.0%
3-4	1.5%	3.0%	3.5%	5.0%	6.5%
4-5	1.5%	2.5%	3.5%	5.0%	6.0%
5-6	1.0%	2.0%	3.5%	4.5%	5.5%
6-7	1.0%	1.5%	3.5%	4.5%	5.0%
7-8	1.0%	1.5%	3.5%	4.5%	5.0%
8-9	0.5%	1.0%	3.5%	4.0%	4.5%
9-10	0.5%	1.0%	3.5%	4.0%	4.5%
10 & Over	0.5%	0.5%	3.5%	4.0%	4.0%

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of death, disability, withdrawal and retirement are shown in the following tables:

Non-Hazardous Members

Age	Withdrawal and Vesting*	Death		Disability	Service Retirement**
		Male	Female		
20	6.00%	0.05%	0.03%	0.05%	
25	5.40	0.07	0.03	0.07	
30	4.80	0.08	0.04	0.09	
35	3.60	0.09	0.05	0.13	
40	2.66	0.11	0.07	0.20	
45	1.98	0.16	0.10	0.33	
50	1.92	0.26	0.14	0.56	
55	1.08	0.44	0.23	0.92	8.0%
60	0.75	0.80	0.44	1.46	10.0
65		1.45	0.86		25.0
70		2.37	1.37		25.0
75					100.0

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 15.0%, 14.0%, 10.0%, 8.0% and 6.0%, respectively.

** If service is at least 27 years, the rate is 25%.

Hazardous Members

Age	Withdrawal and Vesting*	Death**			Service Retirement***	
		Male	Female	Disability	Service	Rate
20	4.56%	0.05%	0.03%	0.07%	20	30.0%
25	3.04	0.07	0.03	0.09	25	25.0
30	3.01	0.08	0.04	0.12	30	40.0
35	1.95	0.09	0.05	0.17	35	30.0
40	1.50	0.11	0.07	0.27		
45	0.75	0.16	0.10	0.44		
50	0.50	0.26	0.14	0.75		
55		0.44	0.23	1.23		
60		0.80	0.44	1.95		

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 10.0%, 7.0%, 5.0%, 4.0% and 3.5%, respectively.

** 75% are presumed to be non-duty related, and 25% are assumed to be duty related.

*** The annual rate of service retirement is 100% at age 62.

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

Year	Trend
2008	12.0%
2009	11.0
2010	10.0
2011	9.0
2012	8.0
2013	7.0
2014	6.0
2015 and beyond	5.0

AGE RELATED MORBIDITY: Per capita costs are adjusted to reflect expected 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 beyond	0.0

ANTICIPATED PLAN PARTICIPATION: The assumed annual rates of plan participation are as follows:

Medical	Non-Hazardous	Hazardous
Participation	85%	100%

Following are charts detailing expected premiums for pre- and post-Medicare for the year following the valuation date.

**MEDICAL INSURANCE CONTRIBUTION RATES
PRE-MEDICARE ELIGIBLE**

2007				
	Single	Parent Plus	Couple	Family
TOTAL PREMIUMS				
Essential	N/A	\$ 583.28	\$ 895.50	\$ 998.64
Enhanced	\$ 457.70	\$ 702.02	\$ 1,074.84	\$ 1,197.92
Premier	\$ 473.72	\$ 729.74	\$ 1,110.88	\$ 1,237.96
Select	\$ 443.30	\$ 664.94	\$ 934.94	\$ 1,066.60

2008				
	Single	Parent Plus	Couple	Family
TOTAL PREMIUMS				
Essential	N/A	\$ 617.12	\$ 947.44	\$ 1,056.56
Enhanced	\$ 484.24	\$ 742.74	\$ 1,137.18	\$ 1,267.40
Premier	\$ 501.20	\$ 772.06	\$ 1,175.32	\$ 1,309.76
Select	\$ 469.00	\$ 703.50	\$ 989.18	\$ 1,128.48

MEDICARE ELIGIBLE

Effective January 1, 2008	Self-Supporting (Used for OPEB claims cost)	Funding rates (Used for Retiree Contribution Amounts)
Available Plan		
Kentucky Retirement System Health Plan - Medical Only	\$ 144.00	\$ 143.00
Kentucky Retirement System Health Plan - PLUS	\$ 211.00	\$ 260.00
Kentucky Retirement System Health Plan - PREMIUM	\$ 354.00	\$ 329.00

Above amounts are shown as average retiree costs. In the valuation, the claims costs are converted to age 65 amounts and age adjusted.

DEATH AFTER RETIREMENT: The rates of mortality for the period after service retirement are according to the 1983 Group Annuity Mortality Table for all retired members and beneficiaries as of June 30, 2006 and the 1994 Group Annuity Mortality Table for all other members. The Group Annuity Mortality Table set forward 5 years is used for the period after disability retirement.

PERCENT MARRIED: 100% of employees are assumed to be married, with the wife 3 years younger than the husband.

DEPENDENT CHILDREN: For hazardous members' duty-related death benefits, it is assumed that the member is survived by two dependent children each age 6.

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 shown above. 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.

ASSETS: 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 market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

SCHEDULE D

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

This schedule summarizes the major retirement benefit provisions of CERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: July 1 through June 30

Non-Hazardous Normal Retirement:

Age Requirement 65

Service Requirement None

Members whose participation began before 8/1/2004

If a member has at least 48 months of service, the monthly benefit is 2.20% times final average compensation times years of service.

Final compensation is the average salary during the five highest paid fiscal years. If the months of service credit during the highest five-year period are less than forty-eight, one or more additional fiscal years shall be used. For a non-hazardous member whose effective retirement date is between August 1, 2001 and January 1, 2009, and whose total service credit is at least 27 years and whose age and years of service total at least 75, final compensation is based on three years rather than five years. If the months of service credit during the highest three-year period are less than twenty-four, one or more additional fiscal years shall be used.

If a member has less than 48 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

Members whose participation began on or after 8/1/2004

Monthly benefit as calculated above but with a benefit factor of 2.0% instead of 2.2%.

Hazardous Normal Retirement:

Age Requirement 55

Service Requirement None

Amount

If a member has at least 60 months of service, the monthly benefit is 2.50% times final average compensation time years of service.

Final compensation is the average salary during the three highest paid fiscal years. If the months of service credit during the highest three-year period are less than twenty-four, one or more additional fiscal years shall be used.

If a member has less than 60 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

Non-Hazardous Early Retirement:

Requirement

Age 55 with 60 months of service or any age with 25 years of service.

Amount

Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65 or has less than 27 years of service, whichever is smaller.

Hazardous Early Retirement:

Requirement

Age 50 with 15 years of service or any age with 20 years of service.

Amount

Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 55 or has less than 20 years of service, whichever is smaller.

Non-Hazardous Disability:

Age Requirement

None

Service Requirement

60 months

Members whose participation began before 8/1/2004

Normal retirement benefit except that service credit will be added to total service for the period from the last day of plan employment to the member's 65th birthday or until the combined total service as of the last day of paid employment and added service equals 25 years. The total amount of service credit added shall not exceed the member's actual service credit on the last day of paid employment. For members with at least 25 years of service but less than 27 years of service, total service shall be 27 years. For employees with 27 or more years of service credit, actual service will be used.

A contributing member in a non-hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of the member's final monthly rate of pay for each dependent child. The

Members whose participation began on or after 8/1/2004

maximum dependent child's benefit is 40% of the member's final monthly rate of pay.

Normal retirement benefit based on actual service with no penalty or, if larger, 20% of the Final Rate of Pay. May apply for disability even after normal retirement age.

Hazardous Disability:

Age Requirement

None

Service Requirement

60 months

Members whose participation began before 8/1/2004

Normal retirement benefit except that service credit will be added to total service for the period from the last day of plan employment to the member's 55th birthday or until the combined total service as of the last day of paid employment and added service equals 20 years. The total amount of service credit added shall not exceed the member's actual service credit on the last day of paid employment. For employees with 20 or more years of service credit, actual service credit will be used.

A member in a hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of his final monthly rate of pay for each dependent child. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay.

Members whose participation began on or after 8/1/2004

Normal retirement benefit based on actual service with no penalty or, if larger, 25% of the Final Rate of Pay. May apply for disability even after normal retirement age.

Vesting:

Age Requirement

None

Service Requirement

60 months. Service purchased after August 1, 2004 does not count toward vesting insurance benefits. Service purchased by employees who began participating on or after August 1, 2004 does not count toward vesting retirement benefits.

Amount

Normal retirement benefit deferred to normal retirement age or reduced benefit payable at early retirement age.

Normal Retirement Age

65 for non-hazardous members and 55 for hazardous members.

Pre-Retirement Death Benefit (not in line of duty):

<i>Requirement</i>	Any age with 60 months of service or age 65 with 48 months of service.
<i>Amount</i>	Benefit equal to the benefit the member would have received had the member retired on the day before the date of death and elected a 100% joint and survivor form. Benefit is actuarially reduced if member is less than age 55 at date of death.

Spouse's Pre-Retirement Death Benefit (in line of duty):

<i>Requirement</i>	None
<i>Amount</i>	The spouse may choose (1) a \$10,000 lump sum payment and monthly payments of 25% of the member's final monthly rate of pay or (2) benefits based on the member's age, years of service and final compensation at date of death.

Dependent Non-Spouse's Death Benefit (in line of duty) – Hazardous Plan:

<i>Requirement</i>	None
<i>Amount</i>	The non-spouse may choose (1) a \$10,000 lump sum payment or (2) benefits based upon the member's age, years of service and final compensation at date of death.

Dependent Child's Death Benefit (in line of duty):

<i>Requirement</i>	None
<i>Amount</i>	10% of member's final monthly rate of pay up to a maximum of 40%.

Post-Retirement Death Benefit:

<i>Lump-sum Benefit</i>	\$5,000
<i>Husband and Wife</i>	The choice of payment option selected by the member will determine the monthly benefits provided to the beneficiary upon the member's death.

Insurance Plan for Retirees:

Members whose participation began before July 1, 2003

The Retirement System pays a portion of medical premiums for retirees, and in the case of hazardous duty retirees, their dependents and beneficiaries. The Insurance Fund will pay 0%, 25%, 50%, 75%, or 100% of the premiums depending on retiree eligibility as reported by the System. For Medicare-eligible retirees, the percentage paid by the Insurance Fund is applied to the funding rate premiums rather than the self-supporting amounts.

Members whose participation began on or after July 1, 2003

The Retirement System pays \$11.21 per month per year of service toward medical premiums for non-hazardous retirees, \$16.82 per month per year of service for hazardous retirees, and \$11.21 per month per year of service for surviving spouses of hazardous employees. "Line of duty" insurance benefits will be calculated as if the member had at least 20 years of hazardous service. These amounts are shown as of the valuation date and are indexed annually based on the CPI.

Member Contributions:

- Non-hazardous Members* 5% of salary.
- Hazardous Members* 8% of salary.

SCHEDULE E

DETAILED TABULATIONS OF THE DATA

**Schedule of Non-Hazardous Retired Members Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending June 30	2002	2003*	2004*	2005*	2006	2007
			<u>Number</u>			
Beginning of Year	N/A	26,147	27,092	29,129	31,347	33,102
Added	N/A	2,411	2,805	2,808	2,782	3,244
Removed	N/A	1,466	768	590	1,027	782
End of Year	N/A	27,092	29,129	31,347	33,102	35,564
			<u>Annual Allowances</u>			
Beginning of Year	N/A	N/A	\$ 219,848,200	\$ 247,534,300	\$ 279,590,300	\$ 308,269,651
Added	N/A	\$ 24,855,000	28,181,800	30,397,300	34,559,599	44,888,509
Removed	N/A	8,111,100	3,587,800	3,161,200	5,880,248	4,446,140
End of Year	N/A	\$ 219,848,200	\$ 247,534,300	\$ 279,590,300	\$ 308,269,651	\$ 348,712,020
% Increase in Allowances	N/A	N/A	12.59%	12.95%	10.26%	13.12%
Average Annual Allowance	N/A	\$ 8,115	\$ 8,498	\$ 8,919	\$ 9,313	\$ 9,805

*Reported by prior actuarial firm.

**Schedule of Hazardous Retired Members Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending June 30	2002	2003*	2004*	2005*	2006	2007
			<u>Number</u>			
Beginning of Year	N/A	3,483	3,737	4,005	4,361	4,712
Added	N/A	293	343	403	427	500
Removed	N/A	39	75	47	76	53
End of Year	N/A	3,737	4,005	4,361	4,712	5,159
			<u>Annual Allowances</u>			
Beginning of Year	N/A	N/A	\$ 72,322,200	\$ 79,559,200	\$ 89,224,700	\$ 100,290,052
Added	N/A	\$ 6,258,300	6,712,500	8,536,100	11,876,922	14,207,939
Removed	N/A	355,100	605,100	502,700	811,570	762,141
End of Year	N/A	\$ 72,322,200	\$ 79,559,200	\$ 89,224,700	\$ 100,290,052	\$ 113,735,850
% Increase in Allowances	N/A	N/A	10.01%	12.15%	12.40%	13.41%
Average Annual Allowance	N/A	\$ 19,353	\$ 19,865	\$ 20,460	\$ 21,284	\$ 22,046

*Reported by prior actuarial firm.

**Non-Hazardous
Retired Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	3,106	\$ 2,759,169.52	10,541	\$ 6,495,258.89	13,647	\$ 9,254,428.41
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	1,868	1,813,320.80	795	433,150.53	2,663	2,246,471.33
66-2/3% to Beneficiary	571	917,795.51	281	274,071.37	852	1,191,866.88
50% to Beneficiary	821	1,131,432.91	799	792,064.45	1,620	1,923,497.36
Pop-up Option	2,560	3,636,814.99	1,861	1,761,676.31	4,421	5,398,491.30
10 Years Certain	0	0.00	0	0.00	0	0.00
10 Years Certain & Life	1,152	931,233.02	2,396	1,513,313.58	3,548	2,444,546.60
Social Security Option						
Age 62 Basic	219	378,927.13	420	373,899.97	639	752,827.10
Age 62 Survivorship	533	897,532.94	242	232,328.74	775	1,129,861.68
Parital Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	0	0.00	0	0.00	0	0.00
15 Years Certain & Life	506	432,539.34	495	336,557.74	1,001	769,097.08
20 Years Certain & Life	328	388,196.26	416	318,625.36	744	706,821.62
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	98	95,761.60	288	207,024.35	386	302,785.95
PLSO 24 Month Basic	44	27,929.53	182	119,920.11	226	147,849.64
PLSO 36 Month Basic	240	109,546.15	554	213,672.42	794	323,218.57
PLSO 12 Month Survivor	117	125,283.56	72	63,044.61	189	188,328.17
PLSO 24 Month Survivor	77	67,553.05	52	28,256.62	129	95,809.67
PLSO 36 Month Survivor	345	187,421.13	215	83,357.42	560	270,778.55
Total	12,585	\$ 13,900,457.44	19,609	\$ 13,246,222.47	32,194	\$ 27,146,679.91

**Hazardous
Retired Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	552	\$ 1,053,569.73	162	\$ 228,945.49	714	\$ 1,282,515.22
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	468	849,335.18	21	17,838.52	489	867,173.70
66-2/3% to Beneficiary	196	464,743.84	3	7,457.44	199	472,201.28
50% to Beneficiary	318	675,520.77	16	25,368.90	334	700,889.67
Pop-up Option	1,648	3,731,550.71	56	96,683.23	1,704	3,828,233.94
10 Years Certain	26	39,043.88	3	3,549.46	29	42,593.34
10 Years Certain & Life	150	282,494.43	32	52,159.56	182	334,653.99
Social Security Option						
Age 62 Basic	91	139,689.31	7	8,989.48	98	148,678.79
Age 62 Survivorship	285	432,113.66	10	10,293.46	295	442,407.12
Parital Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	0	0.00	0	0.00	0	0.00
15 Years Certain & Life	52	83,758.84	7	6,346.83	59	90,105.67
20 Years Certain & Life	95	162,692.97	8	8,489.20	103	171,182.17
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	24	37,575.50	5	6,155.50	29	43,731.00
PLSO 24 Month Basic	21	40,673.08	6	6,813.35	27	47,486.43
PLSO 36 Month Basic	45	62,605.61	11	12,081.75	56	74,687.36
PLSO 12 Month Survivor	48	106,011.51	1	2,792.73	49	108,804.24
PLSO 24 Month Survivor	48	70,245.56	3	2,579.54	51	72,825.10
PLSO 36 Month Survivor	118	158,954.46	6	4,380.83	124	163,335.29
Total	4,185	\$ 8,390,579.04	357	\$ 500,925.27	4,542	\$ 8,891,504.31

**Non-Hazardous
Beneficiary Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	2	\$ 926.06	23	\$ 15,220.48	25	\$ 16,146.54
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	254	107,709.83	1,327	666,703.48	1,581	774,413.31
66-2/3% to Beneficiary	22	7,975.06	162	86,459.49	184	94,434.55
50% to Beneficiary	59	20,507.04	270	107,654.23	329	128,161.27
Pop-up Option	83	49,864.84	290	209,349.29	373	259,214.13
10 Years Certain	56	35,858.31	99	68,975.83	155	104,834.14
10 Years Certain & Life	58	30,040.21	97	70,132.53	155	100,172.74
Social Security Option						
Age 62 Basic	0	0.00	0	0.00	0	0.00
Age 62 Survivorship	14	9,257.96	80	93,092.18	94	102,350.14
Parital Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	3	631.08	3	631.08
Dependent Child	4	1,402.08	5	1,341.25	9	2,743.33
Refund	0	0.00	4	2,508.60	4	2,508.60
15 Years Certain & Life	26	20,329.49	67	46,596.65	93	66,926.14
20 Years Certain & Life	35	17,981.43	73	70,370.23	108	88,351.66
5 Years Certain	92	56,461.29	106	83,424.42	198	139,885.71
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	0	0.00	11	3,432.71	11	3,432.71
PLSO 12 Month Survivor	3	1,288.69	11	13,510.48	14	14,799.17
PLSO 24 Month Survivor	0	0.00	6	4,016.40	6	4,016.40
PLSO 36 Month Survivor	11	4,148.78	17	5,538.28	28	9,687.06
Total	719	\$ 363,751.07	2,651	\$ 1,548,957.61	3,370	\$ 1,912,708.68

**Hazardous
Beneficiary Lives Summary**

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	0	\$ 0.00	19	\$ 17,075.59	19	\$ 17,075.59
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	5	3,291.04	118	140,588.19	123	143,879.23
66-2/3% to Beneficiary	0	0.00	29	36,372.14	29	36,372.14
50% to Beneficiary	1	509.07	35	26,591.87	36	27,100.94
Pop-up Option	0	0.00	86	126,247.80	86	126,247.80
10 Years Certain	5	12,984.56	19	18,799.44	24	31,784.00
10 Years Certain & Life	1	1,928.62	3	2,129.88	4	4,058.50
Social Security Option						
Age 62 Basic	0	0.00	2	399.50	2	399.50
Age 62 Survivorship	1	2,605.45	60	82,576.09	61	85,181.54
Parital Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	3	2,501.51	3	2,501.51
Dependent Child	99	33,566.98	77	26,653.89	176	60,220.87
Refund	1	248.29	7	4,951.41	8	5,199.70
15 Years Certain & Life	0	0.00	5	5,440.23	5	5,440.23
20 Years Certain & Life	1	1,654.07	23	26,486.38	24	28,140.45
5 Years Certain	4	1,873.50	4	4,042.67	8	5,916.17
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	1	855.35	4	1,731.27	5	2,586.62
PLSO 12 Month Survivor	0	0.00	0	0.00	0	0.00
PLSO 24 Month Survivor	0	0.00	2	1,302.54	2	1,302.54
PLSO 36 Month Survivor	0	0.00	2	3,074.54	2	3,074.54
Total	119	\$ 59,516.93	498	\$ 526,964.94	617	\$ 586,481.87

Non-Hazardous Members

**Retired and Beneficiary Information June 30, 2007
Tabulated by Attained Ages**

Attained Age	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	60	\$ 1,120,761	62	\$ 608,628	105	\$ 470,069	227	\$ 2,199,458
45-49	664	\$ 14,916,379	155	\$ 1,657,540	67	\$ 545,027	886	\$ 17,118,946
50-54	1,577	\$ 34,605,768	289	\$ 3,037,619	140	\$ 1,174,629	2,006	\$ 38,818,016
55-59	3,508	\$ 55,035,432	559	\$ 5,679,012	215	\$ 2,261,957	4,282	\$ 62,976,401
60-64	4,898	\$ 56,425,715	645	\$ 6,208,981	326	\$ 3,061,941	5,869	\$ 65,696,637
65-69	6,097	\$ 54,787,054	652	\$ 5,756,321	395	\$ 3,433,452	7,144	\$ 63,976,827
70-74	5,054	\$ 38,787,656	378	\$ 2,840,727	431	\$ 3,330,373	5,863	\$ 44,958,756
75-79	3,565	\$ 23,546,148	129	\$ 832,767	499	\$ 3,475,105	4,193	\$ 27,854,020
80-84	2,294	\$ 13,203,643	36	\$ 210,313	463	\$ 2,281,991	2,793	\$ 15,695,947
85-89	1,130	\$ 4,767,460	24	\$ 99,262	380	\$ 1,674,581	1,534	\$ 6,541,303
90 & Over	412	\$ 1,609,699	6	\$ 23,317	349	\$ 1,242,693	767	\$ 2,875,709
Totals	29,259	\$ 298,805,715	2,935	\$ 26,954,487	3,370	\$ 22,951,818	35,564	\$ 348,712,020

Hazardous Members

**Retired and Beneficiary Information June 30, 2007
Tabulated by Attained Ages**

Attained Age	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	157	\$ 4,187,134	68	\$ 1,063,600	199	\$ 906,167	424	\$ 6,156,901
45-49	402	\$ 10,878,722	73	\$ 1,102,469	22	\$ 187,940	497	\$ 12,169,131
50-54	765	\$ 21,314,113	84	\$ 1,209,944	38	\$ 408,277	887	\$ 22,932,334
55-59	1,059	\$ 28,400,913	75	\$ 1,062,721	68	\$ 1,017,231	1,202	\$ 30,480,865
60-64	815	\$ 17,970,665	37	\$ 521,471	74	\$ 1,333,995	926	\$ 19,826,131
65-69	547	\$ 10,638,052	9	\$ 106,113	84	\$ 1,491,735	640	\$ 12,235,900
70-74	276	\$ 5,176,450	10	\$ 121,899	50	\$ 753,881	336	\$ 6,052,230
75-79	116	\$ 2,209,227	2	\$ 15,740	50	\$ 628,467	168	\$ 2,853,434
80-84	40	\$ 692,805	1	\$ 17,956	22	\$ 219,366	63	\$ 930,127
85-89	5	\$ 7,358			6	\$ 55,124	11	\$ 62,482
90 & Over	1	\$ 714			4	\$ 35,601	5	\$ 36,315
Totals	4,183	\$ 101,476,153	359	\$ 5,221,913	617	\$ 7,037,784	5,159	\$ 113,735,850

**Total Non-Hazardous Active Members as of June 30, 2007
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date								Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 26	27 - 29	30+	
Under 20	750								750
Avg Pay	\$15,113								\$15,113
20-24	3,009	250							3,259
Avg Pay	\$18,859	\$23,288							\$19,199
25-29	3,436	1,061	89						4,586
Avg Pay	\$21,073	\$26,665	\$28,171						\$22,505
30-34	3,741	1,988	475	19					6,223
Avg Pay	\$20,454	\$28,254	\$33,057	\$33,909					\$23,949
35-39	6,112	2,867	1,237	312	26				10,554
Avg Pay	\$18,294	\$25,983	\$33,225	\$37,316	\$50,568				\$22,775
40-44	4,379	3,970	1,831	899	456	69			11,604
Avg Pay	\$19,640	\$23,533	\$29,036	\$36,715	\$43,002	\$43,990			\$24,840
44-49	4,437	4,096	2,822	1,400	738	232	180	33	13,552
Avg Pay	\$19,965	\$23,444	\$26,146	\$32,129	\$41,670	\$45,343	\$48,725	\$57,247	\$25,649
50-54	3,633	3,345	2,971	1,847	938	264	189	135	12,936
Avg Pay	\$21,923	\$23,789	\$25,262	\$29,439	\$37,290	\$39,277	\$48,092	\$53,478	\$26,426
55-59	2,974	2,304	2,114	1,923	944	267	167	132	10,440
Avg Pay	\$20,983	\$24,802	\$25,766	\$27,491	\$33,550	\$35,757	\$41,996	\$55,391	\$26,278
60-64	1,628	1,580	1,150	1,049	504	201	118	89	6,319
Avg Pay	\$18,787	\$22,642	\$24,189	\$27,104	\$28,908	\$33,343	\$36,718	\$49,271	\$24,149
65-69	655	614	445	369	144	35	42	34	2,338
Avg Pay	\$16,228	\$20,055	\$21,367	\$23,950	\$26,310	\$26,187	\$35,662	\$50,965	\$21,054
70 & over	317	332	220	174	87	19	25	28	1,202
Avg Pay	\$15,586	\$18,314	\$18,612	\$21,589	\$24,731	\$28,940	\$24,713	\$46,967	\$19,556
Totals	35,071	22,407	13,354	7,992	3,837	1,087	721	451	84,920
Avg Pay	\$19,678	\$24,328	\$26,749	\$29,847	\$36,183	\$38,307	\$43,442	\$52,890	\$24,457

**Total Hazardous Active Members as of June 30, 2007
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date								Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 26	27 - 29	30+	
Under 20	41								41
Avg Pay	\$30,210								\$30,210
20-24	456	16							472
Avg Pay	\$31,924	\$39,890							\$32,194
25-29	1,063	229	6						1,298
Avg Pay	\$36,379	\$45,662	\$43,526						\$38,050
30-34	711	892	162						1,765
Avg Pay	\$37,330	\$46,775	\$52,440						\$43,490
35-39	597	756	656	166	11	1			2,187
Avg Pay	\$35,059	\$46,075	\$53,650	\$57,644	\$60,371	\$35,268			\$46,285
40-44	271	385	404	533	149	14			1,756
Avg Pay	\$36,201	\$45,365	\$51,710	\$58,787	\$63,008	\$63,549			\$51,126
44-49	150	215	194	289	214	27	28	4	1,121
Avg Pay	\$34,871	\$42,339	\$49,627	\$57,911	\$61,347	\$57,634	\$57,063	\$71,547	\$51,085
50-54	111	140	124	140	110	31	50	28	734
Avg Pay	\$38,039	\$43,446	\$49,028	\$54,616	\$54,195	\$60,356	\$55,231	\$65,917	\$49,687
55-59	92	95	40	59	51	23	42	29	431
Avg Pay	\$39,689	\$42,982	\$47,118	\$54,144	\$50,219	\$50,755	\$56,711	\$54,690	\$47,588
60-64	37	47	28	17	25	6	13	19	192
Avg Pay	\$35,269	\$40,625	\$45,450	\$51,758	\$42,234	\$48,788	\$44,068	\$57,023	\$43,603
65-69	14	14	8		3	3	1	1	44
Avg Pay	\$37,994	\$41,716	\$41,573		\$44,976	\$50,104	\$105,516	\$49,128	\$42,918
70 & over	7	5	3	2	2	1	2		22
Avg Pay	\$23,823	\$43,572	\$33,204	\$64,440	\$53,604	\$65,880	\$60,048		\$41,195
Totals	3,550	2,794	1,625	1,206	565	106	136	81	10,063
Avg Pay	\$35,735	\$45,489	\$51,777	\$57,618	\$58,409	\$56,872	\$55,439	\$59,882	\$45,613



**Report on the Annual Valuation of the
State Police Retirement System**

Prepared as of June 30, 2007

November 19, 2007

Board of Trustees
Kentucky Retirement Systems
Perimeter Park West
1260 Louisville Road
Frankfort, KY 40601

Dear Members of the Board:

Presented in this report are the results of the annual actuarial valuation of the retirement and insurance benefits provided under the State Police Retirement System (SPRS). The purpose of the valuation was to measure the System's funding progress and to determine the required employer contribution rates for the fiscal year beginning July 1, 2008.

The date of the valuation was June 30, 2007.

The valuation was based upon data, furnished by the Executive Director and the Kentucky Retirement Systems (KRS) staff, concerning active, inactive and retired members along with pertinent financial information. The complete cooperation of the KRS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the summary of results on page 1 and the comments on page 5.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA
Chief Executive Officer

Edward A. Macdonald, ASA, FCA, MAAA
President

TJC/EAM:kc

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**REPORT ON THE ANNUAL VALUATION OF THE
STATE POLICE RETIREMENT SYSTEM**

PREPARED AS OF JUNE 30, 2007

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2007, presents the results of the annual actuarial valuation of the retirement and insurance benefits provided under the System. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized in the following table.

SUMMARY OF PRINCIPAL RESULTS

	6/30/2007	6/30/2006
Contributions for next fiscal year:		
Retirement	32.39%	28.95%
Insurance	<u>59.54</u>	<u>91.05</u>
Total	91.93%	120.00%
Funded status as of valuation date:		
Retirement		
Actuarial accrued liability	\$547,955,286	\$516,482,298
Actuarial value of assets	348,806,508	344,016,197
Unfunded liability on actuarial value of assets	199,148,778	172,466,101
Funded ratio on actuarial value of assets	63.66%	66.61%
Market value of assets	\$376,381,488	\$352,841,486
Unfunded liability on market value of assets	171,573,798	163,640,812
Funded ratio on market value of assets	68.69%	68.32%
Insurance		
Actuarial accrued liability	\$432,763,229	\$582,580,867
Actuarial value of assets	115,215,912	105,580,269
Unfunded liability on actuarial value of assets	317,547,317	477,000,598
Funded ratio on actuarial value of assets	26.62%	18.12%
Market value of assets	\$132,573,898	\$110,491,075
Unfunded liability on market value of assets	300,189,331	472,089,792
Funded ratio on market value of assets	30.63%	18.97%
Demographic data as of valuation date:		
Number of retired participants and beneficiaries	1,105	1,067
Number of vested former members	47	48
Number of former members due a refund	239	218
Number of active members	957	1,028
Total salary	\$49,247,580	\$47,743,865
Average salary	\$51,460	\$46,443

2. The valuation balance sheets showing the results of the valuation are given in Schedule A.
3. Comments on the valuation results are given in Section IV, comments on the experience and actuarial gains during the valuation year are given in Section V, and the rates of contribution payable by employers are given in Section VI.
4. There were no changes in benefit provisions since the last valuation. Since the previous valuation, the assumptions and methods were changed as follows:
 - Medical trend rates were changed to a range starting at 12.0% per year in 2008 and declining to an ultimate rate of 5.0% in 2015 and later
 - All accrued liability amortization bases were consolidated and reset to a new 30-year closed amortization period beginning with the June 30, 2007 valuation. In future years, the total unfunded accrued liability will be amortized over the remaining period.
5. Schedule B of this report presents the development of the actuarial value of assets. Schedule C details the actuarial assumptions and methods employed. Schedule D gives a summary of the benefit and contribution provisions of the plan.
6. The investment rate of return for developing insurance liabilities and contribution rates shown in this report for June 30, 2006 and June 30, 2007 is 4.50%. The lower rate for insurance benefits is required under the parameters set by the Governmental Accounting Standards Board Statements 43 and 45 given the lack of pre-funding of those benefits.

SECTION II – MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following tables summarize the membership of the system as of June 30, 2007 upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Active Members

Number	Payroll	Group Averages		
		Salary	Age	Service
957	\$49,247,580	\$51,460	37.3	11.1

The following table shows a six-year history of active member valuation data.

SCHEDULE OF SPRS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2002	1,002	\$43,961,844	\$43,874	0.8%
6/30/2003	1,019	43,760,832	42,945	(2.1)
6/30/2004	999	43,835,208	43,879	2.2
6/30/2005	987	43,720,092	44,296	1.0
6/30/2006	1,028	47,743,865	46,443	4.8
6/30/2007	957	49,247,580	51,460	10.8

The following table shows the number and annual retirement allowances payable to retired members and their beneficiaries on the roll of the Retirement System as of the valuation date as well as certain group averages.

Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	939	\$33,555,843	\$35,736	60.1
Disability	37	\$641,068	17,326	56.3
Beneficiary	129	3,011,466	23,345	60.7
Total in SPRS	1,105	\$37,208,377	\$33,673	60.0

This valuation also includes 286 inactive members of which 47 are vested.

SECTION III - ASSETS

1. As of June 30, 2007 the total market value of assets amounted to \$508,955,386 as shown in the following table.

Retirement	Insurance	SPRS Total
\$376,381,488	\$132,573,898	\$508,955,386

2. The five-year smoothed market related actuarial value of assets used for the current valuation was \$464,022,420. Schedule B shows the development of the actuarial value of assets as of June 30, 2007. The following table shows the actuarial value of assets.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	JUNE 30, 2007	JUNE 30, 2006
Retirement	\$ 348,806,508	\$ 344,016,197
Insurance	<u>115,215,912</u>	<u>105,580,269</u>
Total	\$ 464,022,420	\$ 449,596,466

SECTION IV - COMMENTS ON VALUATION

Schedule A of this report contains the valuation balance sheets which show the present and prospective assets and liabilities of the System as of June 30, 2007. Separate balance sheets are shown for Retirement and Insurance.

Retirement

1. The total valuation balance sheet on account of retirement benefits shows that the System has total prospective retirement benefit liabilities of \$621,417,513, of which \$395,686,232 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$2,177,288 is for the prospective benefits payable on account of inactive members, \$223,553,993 is for the prospective benefits payable on account of present active members. Against these retirement benefit liabilities the System has a total present actuarial value of assets of \$348,806,508 as of June 30, 2007. The difference of \$272,611,005 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of retirement benefits. Of this amount, \$33,817,886 is the present value of future contributions expected to be made by members, and the balance of \$238,793,119 represents the present value of future contributions payable by the State.
2. The State's contributions to the System on account of retirement benefits consist of normal contributions, accrued liability contributions and contributions for administrative expenses. The valuation indicates that employer normal contributions at the rate of 9.38% of payroll are required to provide the benefits of the System for the average new member of SPRS.
3. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$39,644,341. When this amount is subtracted from \$238,793,119, which is the present value of the total future contributions to be made by the State, there remains \$199,148,778 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by the State on account of retirement benefits be set at 22.75% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of \$199,148,778 over 30 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 3.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.26% of payroll.

Insurance

1. The total valuation balance sheet on account of insurance benefits shows that the System has total prospective insurance benefit liabilities of \$592,708,459, of which \$165,115,867 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$7,175,275 is for the prospective benefits payable to current inactive members, and \$420,417,317 is for the prospective benefits payable on account of present active members. Against these insurance benefit liabilities the System has a total present actuarial value of assets of \$115,215,912 as of June 30, 2007. The difference of \$477,492,547 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of insurance benefits. Of this amount, \$0 is the present value of future contributions expected to be made by members, and the balance of \$477,492,547 represents the present value of future contributions payable by the State.
2. The State's contributions to the System on account of insurance benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 34.71% of payroll are required to provide the benefits of the System for the average new member of SPRS.
3. Prospective employer normal contributions on account of insurance benefits at the above rates have a present value of \$159,945,230. When this amount is subtracted from \$477,492,547, which is the present value of the total future contributions to be made by the employers, there remains \$317,547,317 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by the State on account of insurance benefits be set at 24.62% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of \$317,547,317 over 30 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 3.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.21% 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, 2007 is shown below (\$ millions).

**Experience Gain/(Loss)
Retirement Benefits**

		Amount	
(1)	UAAL* as of 6/30/06	\$	172.5
(2)	Normal cost from last valuation		4.3
(3)	Expected employer contributions		<u>13.8</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .0775		12.6
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$	175.6
(6)	Change due to plan amendments		0.0
(7)	Change due to new actuarial assumption or methods		0.0
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$	175.6
(9)	Actual UAAL as of 6/30/07	\$	199.1
(10)	Gain/(loss): (8) - (9)	\$	(23.5)
(11)	Accrued liabilities as of 6/30/06	\$	516.5
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year		(4.5)%

*Unfunded actuarial accrued liability.

**Experience Gain/(Loss)
Insurance Benefits**

		Amount	
(1)	UAAL* as of 6/30/06	\$	477.0
(2)	Normal cost from last valuation		25.0
(3)	Actual employer contributions		<u>43.2</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .045		20.6
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$	479.4
(6)	Change due to plan amendments		0.0
(7)	Change due to new actuarial assumption or methods		(218.3)
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$	261.1
(9)	Actual UAAL as of 6/30/07	\$	317.5
(10)	Gain/(loss): (8) - (9)	\$	(56.4)
(11)	Accrued liabilities as of 6/30/06	\$	582.6
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year		(9.7)%

*Unfunded actuarial accrued liability.

**SPRS MEMBERS
ANALYSIS OF FINANCIAL EXPERIENCE**

**Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
(\$ Millions)**

Type of Activity	Retirement \$ Gain (or Loss) For Year Ending 6/30/07	Insurance \$ Gain (or Loss) For Year Ending 6/30/07
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (3.6)	\$ (4.1)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.2	0.2
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	0.0
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	0.0	0.0
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	(4.8)	24.0
New Members. Additional unfunded accrued liability will produce a loss.	(0.1)	(0.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	5.2	4.4
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	(0.1)	(0.1)
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(20.3)</u>	<u>(80.7)</u>
Gain (or Loss) During Year From Financial Experience	\$ (23.5)	\$ (56.4)
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	<u>0.0</u>	<u>218.3</u>
Composite Gain (or Loss) During Year	\$ (23.5)	\$ 161.9

SECTION VI – REQUIRED CONTRIBUTION RATES

The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by the State to the Retirement System. The following tables show the rates of contribution payable by employers as determined from the present valuation for the 2008/2009 fiscal year.

**Required Contribution Rates
Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 7,781,118	15.80%
(2) Disability benefits	561,422	1.14
(3) Survivor benefits	216,689	0.44
(4) Total	\$ 8,559,229	17.38%
B. Member Contributions	\$ 3,939,806	8.00%
C. Employer Normal Cost: [A(4) - B]	\$ 4,619,423	9.38%
D. Administrative Expenses	\$ 126,687	0.26%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/06 Valuation:	\$ 9,728,089	19.75%
(2) Change due to:		
a. Active decrements	\$ 191,312	0.39%
b. Pay increases	270,087	0.55
c. Retiree mortality	5,627	0.01
d. Investment return	(292,594)	(0.59)
e. COLA	894,663	1.82
f. Assumption Change	0	0.00
g. Other	408,547	0.82
h. Total Change	\$ 1,477,642	3.00%
(3) UAAL Contribution Based on 6/30/07 Valuation: [E(1) +E(2)h]	\$ 11,205,731	22.75%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 15,951,841	32.39%

* Based on 30 year amortization of the UAAL from June 30, 2007

**Required Contribution Rates
Insurance**

Contribution for	Amount	% of Payroll
A. Normal Cost	\$ 17,093,299	34.71%
B. Member Contributions*	\$ 0	0.00%
C. Employer Normal Cost: [A - B]	\$ 17,093,299	34.71%
D. Administrative Expenses	\$ 104,872	0.21%
E. Unfunded Actuarial Accrued Liability**	\$ 12,126,495	24.62%
F. Total Recommended Employer Contribution Rate: [C+D+E]	\$ 29,324,666	59.54%

*The liabilities are net of retiree contributions toward their healthcare.

** Based on 30 year amortization of the UAAL from June 30, 2007

SECTION VII - ACCOUNTING INFORMATION

Governmental Accounting Standards Board Statements 25, 27, 43 and 45 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, 2007**

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	1,105
Terminated employees entitled to benefits but not yet receiving benefits	286
Active Members	<u>957</u>
Total	2,348

Another such item is the Schedule of Funding Progress for retirement and insurance benefits separately as shown in the following tables.

**RETIREMENT BENEFITS
SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
6/30/2002	\$ 438,955,613	\$ 380,790,346	\$ (58,165,267)	115.3%	\$ 43,961,844	(132.3)%
6/30/2003	413,063,576	414,881,459	1,817,883	99.6	43,760,832	4.2
6/30/2004	385,077,195	437,482,425	52,405,230	88.0	43,835,208	119.6
6/30/2005	353,511,622	458,593,576	105,081,954	77.1	43,720,092	240.4
6/30/2006	344,016,197	516,482,298	172,466,101	66.6	47,743,865	361.2
6/30/2007	348,806,508	547,955,286	199,148,778	63.7	49,247,580	404.4

**INSURANCE BENEFITS
SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
6/30/2002	\$ 86,867,391	\$ 165,445,412	\$ 78,578,021	52.5%	\$ 43,961,844	178.7%
6/30/2003	90,747,967	184,501,205	93,753,238	49.2	43,760,832	214.2
6/30/2004	96,622,908	197,604,301	100,981,393	48.9	43,835,208	230.4
6/30/2005	100,207,082	234,159,510	133,952,428	42.8	43,720,092	306.4
6/30/2006	105,580,269	582,580,867	477,000,598	18.1	47,743,865	999.1
6/30/2007	115,215,912	432,763,229	317,547,317	26.6	49,247,580	644.8

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2007. Additional information as of the latest actuarial valuation follows.

Retirement Benefits	
Valuation date	6/30/2007
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	30 years
Asset valuation method	5 Year Smoothed Market
Actuarial assumptions:	
Investment rate of return*	7.75%
Projected salary increases*	4.0% - 14.5%
Cost-of-living adjustment	None
*Includes inflation at	3.50%

Insurance Benefits	
Valuation date	6/30/2007
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	30 years
Asset valuation method	5 Year Smoothed Market
Medical Trend Assumption	12.0 - 5.0%
Year of Ultimate Trend	2015
Actuarial assumptions:	
Investment rate of return*	4.50%
*Includes inflation at	3.50%

SCHEDULE A

Valuation Balance Sheet and Solvency Test

The following valuation balance sheets show the assets and liabilities of the retirement system as of the current valuation date of June 30, 2007 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2006. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date.

VALUATION BALANCE SHEETS SHOWING THE ASSETS AND LIABILITIES OF THE STATE POLICE RETIREMENT SYSTEM

RETIREMENT BENEFITS

	JUNE 30, 2007	JUNE 30, 2006
ASSETS		
Current actuarial value of assets	\$ 348,806,508	\$ 344,016,197
Prospective contributions		
Member contributions	\$ 33,817,886	\$ 33,653,343
Employer normal contributions	39,644,341	37,531,263
Unfunded accrued liability contributions	<u>199,148,778</u>	<u>172,466,101</u>
Total prospective contributions	<u>\$ 272,611,005</u>	<u>\$ 243,650,707</u>
Total assets	<u>\$ 621,417,513</u>	<u>\$ 587,666,904</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 395,686,232	\$ 371,485,440
Present value of benefits payable on account of active members	223,553,993	214,078,759
Present value of benefits payable on account of inactive members	<u>2,177,288</u>	<u>2,102,705</u>
Total liabilities	<u>\$ 621,417,513</u>	<u>\$ 587,666,904</u>

**VALUATION BALANCE SHEET
INSURANCE BENEFITS**

	JUNE 30, 2007	JUNE 30, 2006
ASSETS		
Current actuarial value of assets	\$ 115,215,912	\$ 105,580,269
Prospective contributions		
Normal contributions	\$ 159,945,230	\$ 241,009,134
Unfunded accrued liability contributions	<u>317,547,317</u>	<u>477,000,598</u>
Total prospective contributions	<u>\$ 477,492,547</u>	<u>\$ 718,009,732</u>
 Total assets	 <u><u>\$ 592,708,459</u></u>	 <u><u>\$ 823,590,001</u></u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 165,115,867	\$ 235,676,003
Present value of benefits payable on account of active members	420,417,317	582,676,133
Present value of benefits payable on account of inactive members	<u>7,175,275</u>	<u>5,237,865</u>
 Total liabilities	 <u><u>\$ 592,708,459</u></u>	 <u><u>\$ 823,590,001</u></u>

The following tables provide the solvency test for SPRS members.

**Solvency Test
Retirement Benefits**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 36,886,477	\$ 252,498,613	\$ 91,405,256	\$ 438,955,613	100.0%	100.0%	163.6%
6/30/2003*	35,832,095	290,012,792	89,036,572	413,063,576	100.0	100.0	98.0
6/30/2004*	37,658,106	318,664,694	81,159,625	385,077,195	100.0	100.0	35.4
6/30/2005*	35,670,717	341,398,363	81,524,496	353,511,622	100.0	93.1	0.0
6/30/2006	37,866,774	373,588,145	105,027,379	344,016,197	100.0	81.9	0.0
6/30/2007	39,505,285	397,863,520	110,586,481	348,806,508	100.0	77.7	0.0

*Reported by prior actuarial firm.

**Solvency Test
Insurance Benefits**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
6/30/2002*	\$ 0	\$ 94,205,237	\$ 71,240,175	\$ 86,867,391	100.0%	92.2%	0.0%
6/30/2003*	0	106,317,750	78,183,455	90,747,967	100.0	85.4	0.0
6/30/2004*	0	119,104,851	78,499,450	96,622,908	100.0	81.1	0.0
6/30/2005*	0	141,585,694	92,573,816	100,207,082	100.0	70.8	0.0
6/30/2006	0	240,913,868	341,666,999	105,580,269	100.0	43.8	0.0
6/30/2007	0	172,291,142	260,472,087	115,215,912	100.0	66.9	0.0

*Reported by prior actuarial firm.

SCHEDULE B

**Development of Actuarial Value of Assets
Retirement Benefits**

Valuation date June 30:		2006	2007	2008	2009	2010	2011
A.	Actuarial Value Beginning of Year	\$ 353,511,622	\$ 344,016,197				
B.	Market Value End of Year	352,841,486	376,381,488				
C.	Market Value Beginning of Year	339,405,873	352,841,486				
D.	Cash Flow						
	D1. Contributions	9,058,705	11,293,952				
	D2. Benefit Payments	(34,836,365)	(37,233,587)				
	D3. Administrative Expenses	(133,540)	(126,687)				
	D4. Investment Expenses	<u>(284,289)</u>	<u>(306,896)</u>				
	D5. Net	(26,195,490)	(26,373,218)				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	39,631,102	49,913,220				
	E2. Assumed Rate	8.25%	7.75%				
	E3. Amount for Immediate Recognition	27,216,436	26,642,041				
	E4. Amount for Phased-In Recognition	12,414,667	23,271,179				
F.	Pasked-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	2,482,933	4,654,236				
	F2. First Prior Year	(128,096)	2,482,933	4,654,236			
	F3. Second Prior Year	1,765,427	(128,096)	2,482,933	4,654,236		
	F4. Third Prior Year	(4,253,012)	1,765,427	(128,096)	2,482,933	4,654,236	
	F5. Fourth Prior Year	<u>(10,383,623)</u>	<u>(4,253,012)</u>	<u>1,765,427</u>	<u>(128,096)</u>	<u>2,482,933</u>	<u>4,654,236</u>
	F6. Total Recognized Investment Gain	(10,516,371)	4,521,488	8,774,500	7,009,073	7,137,169	4,654,236
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	\$ 344,016,197	\$ 348,806,508				
H.	Difference Between Market & Actuarial Values	\$ 8,825,289	\$ 27,574,980	\$ 18,800,480	\$ 11,791,407	\$ 4,654,235	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

**Development of Actuarial Value of Assets
Insurance Benefits**

Valuation date June 30:	2006	2007	2008	2009	2010	2011
A. Actuarial Value Beginning of Year	\$ 100,207,082	\$ 105,580,269				
B. Market Value End of Year	110,491,075	132,573,898				
C. Market Value Beginning of Year	99,408,106	110,491,075				
D. Cash Flow						
D1. Contributions	6,885,334	6,858,127				
D2. Benefit Payments	(7,816,174)	(6,515,053)				
D3. Administrative Expenses	(67,587)	(104,872)				
D4. Investment Expenses	<u>(100,954)</u>	<u>(93,044)</u>				
D5. Net	(1,099,381)	145,158				
E. Investment Income						
E1. Market Total: B.-C.-D5.	12,182,350	21,937,665				
E2. Assumed Rate	8.25%	4.50%				
E3. Amount for Immediate Recognition	8,260,938	5,070,502				
E4. Amount for Phased-In Recognition	3,921,412	16,867,163				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	784,282	3,373,433				
F2. First Prior Year	68,955	784,282	3,373,433			
F3. Second Prior Year	1,373,499	68,955	784,282	3,373,433		
F4. Third Prior Year	(1,180,186)	1,373,499	68,955	784,282	3,373,433	
F5. Fourth Prior Year	<u>(2,834,921)</u>	<u>(1,180,186)</u>	<u>1,373,499</u>	<u>68,955</u>	<u>784,282</u>	<u>3,373,433</u>
F6. Total Recognized Investment Gain	(1,788,371)	4,419,983	5,600,169	4,226,670	4,157,715	3,373,433
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 105,580,269	\$ 115,215,912				
H. Difference Between Market & Actuarial Values	\$ 4,910,806	\$ 17,357,986	\$ 11,757,817	\$ 7,531,147	\$ 3,373,433	\$ 0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

*This is the actuarial value as reported by the previous actuary. It differs from the method in the table above by \$1. The difference is obviously not material.

SCHEDULE C

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected by the prior actuarial firm based on the actuarial experience study prepared as of June 30, 2005, submitted January 12, 2006, and adopted by the Board on January 19, 2006, with the exception of the health care cost trend rate which was adopted by the Board on November 15, 2007.

INVESTMENT RATE OF RETURN: 7.75% per annum, compounded annually for retirement benefits. A blended rate is necessary to meet GASB Statement 43 requirements for insurance benefits. The current blended rate for SPRS is 4.50%.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases for members are as follows and include inflation at 3.50% per annum:

Service	Annual Rates of		
	Merit & Seniority	Base (Economy)	Increase Next Year
0-1	11.0%	3.5%	14.5%
1-2	4.0	3.5	7.5
2-3	3.5	3.5	7.0
3-4	3.0	3.5	6.5
4-5	2.5	3.5	6.0
5-6	2.0	3.5	5.5
6-7	1.5	3.5	5.0
7-8	1.5	3.5	5.0
8-9	1.0	3.5	4.5
9-10	1.0	3.5	4.5
10 & over	0.5	3.5	4.0

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of death, disability, withdrawal and retirement are shown in the following tables:

Age	Withdrawal and Vesting*	Death**		Disability	Service Retirement***	
		Male	Female		Service	Rate
20	2.50%	0.05%	0.03%	0.07%	20	20.0%
25	2.28	0.07	0.03	0.09	25	20.0
30	1.83	0.08	0.04	0.12	30	45.0
35	1.31	0.09	0.05	0.17	35	70.0
40	0.81	0.11	0.07	0.27		
45	0.41	0.16	0.10	0.44		
50		0.26	0.14	0.75		
55		0.44	0.23	1.23		
60		0.80	0.44	1.95		

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 10.0%, 7.0%, 5.0%, 4.0% and 3.5%, respectively.

** 75% are presumed to be non-duty related, and 25% are assumed to be duty related.

*** The annual rate of service retirement is 100% at age 55.

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

Year	Trend
2008	12.0%
2009	11.0
2010	10.0
2011	9.0
2012	8.0
2013	7.0
2014	6.0
2015 and beyond	5.0

AGE RELATED MORBIDITY: Per capita costs are adjusted to reflect expected 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

ANTICIPATED PLAN PARTICIPATION: The assumed annual rates of plan participation and spouse coverage are as follows:

Participation	100%
Spouse Coverage	100%

Following are charts detailing expected premiums for pre- and post-Medicare for the year following the valuation date.

**MEDICAL INSURANCE CONTRIBUTION RATES
PRE-MEDICARE ELIGIBLE**

2007					
	Single	Parent Plus	Couple	Family	
TOTAL PREMIUMS					
Essential	N/A	\$ 583.28	\$ 895.50	\$ 998.64	
Enhanced	\$ 457.70	\$ 702.02	\$ 1,074.84	\$ 1,197.92	
Premier	\$ 473.72	\$ 729.74	\$ 1,110.88	\$ 1,237.96	
Select	\$ 443.30	\$ 664.94	\$ 934.94	\$ 1,066.60	

2008					
	Single	Parent Plus	Couple	Family	
TOTAL PREMIUMS					
Essential	N/A	\$ 617.12	\$ 947.44	\$ 1,056.56	
Enhanced	\$ 484.24	\$ 742.74	\$ 1,137.18	\$ 1,267.40	
Premier	\$ 501.20	\$ 772.06	\$ 1,175.32	\$ 1,309.76	
Select	\$ 469.00	\$ 703.50	\$ 989.18	\$ 1,128.48	

MEDICARE ELIGIBLE

Effective January 1, 2008	Self-Supporting (Used for OPEB claims cost)	Funding rates (Used for Retiree Contribution Amounts)
Available Plan		
Kentucky Retirement System Health Plan - Medical Only	\$ 144.00	\$ 143.00
Kentucky Retirement System Health Plan - PLUS	\$ 211.00	\$ 260.00
Kentucky Retirement System Health Plan - PREMIUM	\$ 354.00	\$ 329.00

Above amounts are shown as average retiree costs. In the valuation, the claims costs are converted to age 65 amounts and age adjusted.

DEATH AFTER RETIREMENT: The rates of mortality for the period after service retirement are according to the 1983 Group Annuity Mortality Table for all retired members and beneficiaries as of June 30, 2006 and the 1994 Group Annuity Mortality Table for all other members. The Group Annuity Mortality Table set forward 5 years is used for the period after disability retirement.

PERCENT MARRIED: 100% of employees are assumed to be married, with the wife 3 years younger than the husband.

DEPENDENT CHILDREN: For hazardous members' duty-related death benefits, it is assumed that the member is survived by two dependent children each age 6.

UNUSED SICK LEAVE: It is assumed that a member will be granted one and one-half year of service credit for unused sick leave at termination of employment.

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 shown above. 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.

ASSETS: 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 market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

SCHEDULE D

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

This schedule summarizes the major retirement benefit provisions of SPRS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: July 1 through June 30

Normal Retirement:

<i>Age Requirement</i>	55
<i>Service Requirement</i>	None
<i>Amount</i>	If a member has at least 60 months of service, the monthly benefit is 2.50% times final average compensation time years of service.

Final compensation is the average salary during the three highest paid fiscal years. If the months of service credit during the highest three-year period are less than twenty-four, one or more additional fiscal years shall be used.

If a member has less than 60 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

Early Retirement:

<i>Requirement</i>	Age 50 with 15 years of service or any age with 20 years service.
<i>Amount</i>	Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 55 or has less than 20 years service, whichever is smaller.

Disability:

<i>Age Requirement</i>	None
<i>Service Requirement</i>	60 months
<i>Members whose participation began before 8/1/2004</i>	Normal retirement benefit except that service credit will be added to total service for the period from the last day of plan employment to the member's 55th birthday or until the combined total service as of the last day of paid employment and added service equals 20 years. The total amount of service credit added shall not exceed the member's actual service credit on the last day of paid employment. For employees with 20 or more years of service credit, actual service credit will be used.

A member in a hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of his final monthly rate of pay for each dependent child. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay.

Members whose participation began on or after 8/1/2004

Normal retirement benefit based on actual service with no penalty or, if larger, 25% of the Final Rate of Pay. May apply for disability even after normal retirement age.

Vesting:

Age Requirement

None

Service Requirement

60 months. Service purchased after August 1, 2004 does not count toward vesting insurance benefits. Service purchased by employees who began participating on or after August 1, 2004 does not count toward vesting retirement benefits.

Amount

Normal retirement benefit deferred to normal retirement age or reduced benefit payable at early retirement age.

Normal Retirement Age

55

Pre-Retirement Death Benefit (not in line of duty):

Requirement

Any age with 60 months service or age 65 with 48 months service.

Amount

Benefit equal to the benefit the member would have received had the member retired on the day before the date of death and elected a 100% joint and survivor form. Benefit is actuarially reduced if member is less than age 55 at date of death.

Spouse's Pre-Retirement Death Benefit (in line of duty):

Requirement

None

Amount

The spouse may choose (1) a \$10,000 lump sum payment and monthly payments of 25% of the member's final monthly rate of pay or (2) benefits based on the member's age, years of service and final compensation at date of death.

Dependent Non-Spouse's Death Benefit (in line of duty):

Requirement

None

Amount

The non-spouse may choose (1) a \$10,000 lump sum payment or (2) benefits based upon the member's age, years of service and final compensation at date of death.

Dependent Child's Death Benefit (in line of duty):

<i>Requirement</i>	None
<i>Amount</i>	10% of member's final monthly rate of pay up to a maximum of 40%.

Post-Retirement Death Benefit:

<i>Lump-sum Benefit</i>	\$5,000
<i>Husband and Wife</i>	The choice of payment option selected by the member will determine the monthly benefits provided to the beneficiary upon the member's death.

Insurance Plan for Retirees:

<i>Members whose participation began before July 1, 2003</i>	The Retirement System pays a portion of medical premiums for retirees, their dependents and beneficiaries. The Insurance Fund will pay 0%, 25%, 50%, 75%, or 100% of the premiums depending on retiree eligibility as reported by the System. For Medicare-eligible retirees, the percentage paid by the Insurance Fund is applied to the funding rate premiums rather than the self-supporting amounts.
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<i>Members whose participation began on or after July 1, 2003</i>	The Retirement System pays \$16.82 per month per year of service for retirees, and \$11.21 per month per year of service for surviving spouses employees. "Line of duty" insurance benefits will be calculated as if the member had at least 20 years of service. These amounts are shown as of the valuation date and are indexed annually based on the CPI.
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Member Contributions:	8% of salary.
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SCHEDULE E

DETAILED TABULATIONS OF THE DATA

**Schedule of Retired Members Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending June 30	2002	2003*	2004*	2005*	2006	2007
			<u>Number</u>			
Beginning of Year	N/A	897	941	992	1,036	1,067
Added	N/A	53	62	50	43	49
Removed	N/A	9	11	6	10	11
End of Year	N/A	941	992	1,036	1,067	1,105
			<u>Annual Allowances</u>			
Beginning of Year	N/A	N/A	\$ 28,115,500	\$ 30,805,600	\$ 32,983,900	\$ 34,651,251
Added	N/A	2,040,300	2,580,100	1,813,000	1,943,760	2,836,956
Removed	N/A	135,000	189,900	189,900	276,409	279,830
End of Year	N/A	\$ 28,115,500	\$ 30,805,600	\$ 32,983,900	\$ 34,651,251	\$ 37,208,377
% Increase in Allowances	N/A	N/A	9.57%	7.07%	5.06%	7.38%
Average Annual Allowance	N/A	\$ 29,878	\$ 31,054	\$ 31,838	\$ 32,475	\$ 33,673

*Reported by prior actuarial firm.

Retired Lives Summary

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	88	\$ 254,446.62	5	\$ 13,465.41	93	\$ 267,912.03
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	115	314,976.96	1	3,232.96	116	318,209.92
66-2/3% to Beneficiary	79	268,874.58	1	2,744.22	80	271,618.80
50% to Beneficiary	74	236,542.13	0	0.00	74	236,542.13
Pop-up Option	335	1,090,798.25	1	3,954.69	336	1,094,752.94
10 Years Certain	3	12,955.14	0	0.00	3	12,955.14
10 Years Certain & Life	30	88,187.88	0	0.00	30	88,187.88
Social Security Option						
Age 62 Basic	35	83,610.48	0	0.00	35	83,610.48
Age 62 Survivorship	155	329,217.26	1	4,765.81	156	333,983.07
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	0	0.00	0	0.00	0	0.00
15 Years Certain & Life	10	27,024.82	1	3,532.38	11	30,557.20
20 Years Certain & Life	28	75,884.75	1	2,535.45	29	78,420.20
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	0	0.00	1	415.72	1	415.72
PLSO 12 Month Survivor	4	11,451.45	0	0.00	4	11,451.45
PLSO 24 Month Survivor	1	6,626.73	0	0.00	1	6,626.73
PLSO 36 Month Survivor	7	14,498.99	0	0.00	7	14,498.99
Total	964	\$ 2,815,096.04	12	\$ 34,646.64	976	\$ 2,849,742.68

Beneficiary Lives Summary

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	0	\$ 0.00	4	\$ 2,747.32	4	\$ 2,747.32
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	2	3,782.40	58	144,515.72	60	148,298.12
66-2/3% to Beneficiary	1	721.18	2	3,548.11	3	4,269.29
50% to Beneficiary	1	1,170.62	13	19,923.85	14	21,094.47
Pop-up Option	0	0.00	12	28,059.05	12	28,059.05
10 Years Certain	1	533.20	1	2,650.64	2	3,183.84
10 Years Certain & Life	0	0.00	0	0.00	0	0.00
Social Security Option						
Age 62 Basic	0	0.00	1	1,981.56	1	1,981.56
Age 62 Survivorship	0	0.00	19	30,706.72	19	30,706.72
Parital Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	0	0.00	0	0.00
Dependent Child	6	1,853.30	3	1,000.07	9	2,853.37
Refund	0	0.00	0	0.00	0	0.00
15 Years Certain & Life	0	0.00	0	0.00	0	0.00
20 Years Certain & Life	0	0.00	5	7,761.79	5	7,761.79
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 12 Month Survivor	0	0.00	0	0.00	0	0.00
PLSO 24 Month Survivor	0	0.00	0	0.00	0	0.00
PLSO 36 Month Survivor	0	0.00	0	0.00	0	0.00
Total	11	\$ 8,060.70	118	\$ 242,894.83	129	\$ 250,955.53

**Retired and Beneficiary Information June 30, 2007
Tabulated by Attained Ages**

Attained Age	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	21	\$ 543,462	4	\$ 61,357	11	\$ 60,475	36	\$ 665,294
45-49	59	1,987,159	6	109,839	5	43,983	70	2,140,981
50-54	151	5,523,915	7	95,567	8	61,870	166	5,681,352
55-59	266	9,954,898	7	137,482	18	423,221	291	10,515,601
60-64	197	7,266,386	7	132,664	16	351,722	220	7,750,772
65-69	113	3,524,086	1	21,519	10	311,220	124	3,856,825
70-74	59	1,969,099	4	76,316	11	402,582	74	2,447,997
75-79	44	1,649,605	1	6,324	22	530,816	67	2,186,745
80-84	23	1,057,883	0	0	23	763,185	46	1,821,068
85-89	6	79,350	0	0	5	62,392	11	141,742
90 & Over	0	0	0	0	0	0	0	0
Totals	939	\$ 33,555,843	37	\$ 641,068	129	\$ 3,011,466	1,105	\$ 37,208,377

**Total Active Members as of June 30, 2007
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date								Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 26	27 - 29	30+	
Under 20	1								1
Avg Pay	\$37,656								\$37,656
20-24	15								15
Avg Pay	\$37,397								\$37,397
25-29	97	28							125
Avg Pay	\$39,470	\$43,820							\$40,444
30-34	68	122	19						209
Avg Pay	\$39,159	\$45,369	\$53,485						\$44,086
35-39	40	80	127	32	2				281
Avg Pay	\$39,545	\$45,750	\$54,826	\$61,200	\$61,314				\$50,839
40-44	11	14	35	63	32	1			156
Avg Pay	\$39,862	\$45,914	\$55,535	\$61,874	\$66,418	\$68,952			\$58,445
44-49	7	2	11	37	48	8	7		120
Avg Pay	\$37,505	\$42,000	\$50,479	\$61,477	\$67,353	\$69,573	\$72,081		\$62,254
50-54		1	1		18	2	12	3	37
Avg Pay		\$54,300	\$50,232		\$65,494	\$66,240	\$73,273	\$81,028	\$68,602
55-59					1		4	2	7
Avg Pay					\$60,060		\$76,710	\$90,060	\$78,146
60-64								3	3
Avg Pay								\$83,540	\$83,540
65-69			1						1
Avg Pay			\$61,044						\$61,044
70 & over		1		1					2
Avg Pay		\$48,612		\$60,204					\$54,408
Totals	239	248	194	133	101	11	23	8	957
Avg Pay	\$39,217	\$45,370	\$54,584	\$61,589	\$66,533	\$68,911	\$73,508	\$84,228	\$51,460

