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October 31, 2011

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-fifth annual actuarial valuation of the Kentucky Employees Retirement System, the fifty-second annual actuarial valuation of the County Employees Retirement System, and the fifty-third 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, 2011 actuarial valuation will be used by the Board of Trustees to certify the employer contribution rates for the fiscal year beginning July 1, 2012 and ending June 30, 2013.

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) were 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).

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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.

The impact of HB1 passed into law in 2008 will be to eventually reduce the contribution rates otherwise required as more active members are covered under the lower benefit structure effective for those hired after August 31, 2008.

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 (and for KERS Hazardous and CERS Non-Hazardous the 2009) 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, 2011 the funding levels for the pension funds are as follows:

System	Pension Funding Level
KERS Non-Hazardous Pension Fund	33.3%
KERS Hazardous Pension Fund	70.8%
CERS Non-Hazardous Pension Fund	63.1%
CERS Hazardous Pension Fund	62.2%
SPRS Pension Fund	45.0%

The funding level for the insurance funds is below that of the pension funds, and the Board's funding objective is to increase this funded level consistently over time. Recent employer contribution rate reductions under KERS and SPRS have significantly limited this improvement. As of June 30, 2011 the funding level for the insurance funds are as follows:



System	Insurance Funding Level
KERS Non-Hazardous Insurance Fund	10.6%
KERS Hazardous Insurance Fund	65.1%
CERS Non-Hazardous Insurance Fund	46.6%
CERS Hazardous Insurance Fund	46.8%
SPRS Insurance Fund	28.2%

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 August 20, 2009 based on the experience investigation report dated August 17, 2009, meet the parameters set for disclosure under GASB Statements No. 25 and 43. 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 scheduled to be completed in January, 2014 and any adjustments will be reflected in the June 30, 2014 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. It is up to the state legislature to follow through with the required funding.

Sincerely,

A handwritten signature in blue ink, which appears to read 'Thomas J. Cavanaugh', is positioned above the typed name.

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



Summary of June 30, 2011 Actuarial Valuation Results

	KERS Non-Hazardous	KERS Hazardous	CERS Non-Hazardous	CERS Hazardous	SPRS
<u>Recommended Contribution Rate (Fiscal Year 2012-2013)</u>					
Pension Fund Contribution	28.03%	16.16%	12.62%	20.10%	47.48%
Insurance Fund Contribution	<u>16.52</u>	<u>19.73</u>	<u>8.59</u>	<u>21.84</u>	<u>55.93</u>
Recommended Employer Contribution	44.55%	35.89%	21.21%	41.94%	103.41%
<u>Funded Status as of Valuation Date</u>					
<i>Pension Fund</i>					
Actuarial Liability	\$11,182,142,032	\$721,293,444	\$8,918,085,025	\$2,859,041,052	\$634,379,401
Actuarial Value of Assets	3,726,986,087	510,748,505	\$5,629,611,183	\$1,779,545,393	\$285,580,631
Unfunded Actuarial Liability on Actuarial Value of Assets	7,455,155,945	210,544,939	\$3,288,473,842	\$1,079,495,659	\$348,798,770
Funding Level as a % of Actuarial Value of Assets	33.3%	70.8%	63.1%	62.2%	45.0%
Market Value of Assets	\$3,538,878,093	\$510,628,492	\$5,577,252,295	\$1,760,602,934	\$279,934,443
Unfunded Actuarial Liability on Market Value of Assets	7,643,263,939	210,664,952	\$3,340,832,730	\$1,098,438,118	\$354,444,958
Funding Level on Market Value of Assets	31.7%	70.8%	62.5%	61.6%	44.1%
<i>Insurance Fund</i>					
Actuarially Accrued Liability	\$4,280,089,633	\$507,058,767	\$3,073,973,205	\$1,647,702,755	\$438,427,763
Actuarial Value of Assets	451,620,442	329,961,615	1,433,450,793	770,790,274	123,687,289
Unfunded Actuarial Liability as a % of Actuarial Value of Assets	3,828,469,191	177,097,152	1,640,522,412	876,912,481	314,740,474
Funding Level as a % of Actuarial Value of Assets	10.6%	65.1%	46.6%	46.8%	28.2%
Market Value of Assets	\$433,305,243	\$321,071,515	\$1,451,984,026	\$774,509,101	\$127,367,947
Unfunded Actuarial Liability as a % of Market Value of Assets	3,846,784,390	185,987,252	1,621,989,179	873,193,654	311,059,816
Funding Level on Market Value of Assets	10.1%	63.3%	47.2%	47.0%	29.1%
<u>Member Data</u>					
Number of Active Members	46,617	4,291	85,285	9,407	965
Total Annual Payroll (Active Members)	\$1,731,632,748	\$133,053,792	\$2,276,595,948	\$466,963,860	\$48,692,616
Average Annual Pay (Active Members)	\$37,146	\$31,008	\$26,694	\$49,640	\$50,459
Number of Retired Members & Beneficiaries	38,597	3,064	43,211	6,468	1,263
Average Annual Retirement Allowance	\$21,276	\$14,886	\$11,191	\$24,777	\$37,583
Number of Vested Inactive Members	6,265	334	9,902	580	52



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 eight fiscal years. The rates shown are the combined rates for retirement and insurance.

Fiscal Year	Recommended Rate	Budgeted Rate
<u>KERS Non-Hazardous</u>		
2003-2004	7.53	5.89
2004-2005	10.29	5.89
2005-2006	13.62	5.89
2006-2007	17.13	7.75
2007-2008	34.23	8.50
2008-2009	28.60	10.01
2009-2010	31.29	11.61
2010-2011	32.75	16.98
<u>KERS Hazardous</u>		
2003-2004	18.84	18.84
2004-2005	19.47	18.84
2005-2006	21.59	18.84
2006-2007	23.32	22.00
2007-2008	47.11	24.25
2008-2009	34.78	24.35
2009-2010	35.54	24.69
2010-2011	34.37	26.12
<u>SPRS</u>		
2003-2004	21.58	21.58
2004-2005	28.08	21.58
2005-2006	34.83	21.58
2006-2007	42.30	25.50
2007-2008	72.00	28.00
2008-2009	60.14	30.07
2009-2010	61.87	33.08
2010-2011	59.84	45.54



Had the recommended contributions been made over this period of time, the contribution rates recommended as a result of the June 30, 2011 valuations would have been reduced by 6.52% of payroll for KERS Non-Hazardous, 3.71% for KERS Hazardous and 10.08% 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 1.5% 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	27.0%	23.4%
KERS Hazardous	68.4	62.4
CERS Non-Hazardous	58.9	53.5
CERS Hazardous	56.6	51.3
SPRS	38.1	34.9

- Impact of Blended Interest Rates on Insurance Valuations - The June 30, 2011 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, 2011 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	16.52%	11.00%
SPRS	55.93	30.43



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

Prepared as of June 30, 2011





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

October 31, 2011

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, 2012. The date of the valuation was June 30, 2011.

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 undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

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

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

TJC:kc

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

PREPARED AS OF JUNE 30, 2011

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2011, 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	
	6/30/2011	6/30/2010	6/30/2011	6/30/2010	6/30/2011	6/30/2010
Contributions for next fiscal year:						
Retirement	28.03%	24.30%	16.16%	14.11%		
Insurance	<u>16.52</u>	<u>16.41</u>	<u>19.73</u>	<u>19.73</u>	N/A	N/A
Total	44.55%	40.71%	35.89%	33.84%		
Funded status as of valuation date:						
Retirement						
Actuarial accrued liability	\$11,182,142,032	\$11,004,795,089	\$721,293,444	\$688,149,451	\$11,903,435,476	\$11,692,944,540
Actuarial value of assets	3,726,986,087	4,210,215,585	510,748,505	502,729,009	4,237,734,592	4,712,944,594
Unfunded liability on actuarial value of assets	7,455,155,945	6,794,579,504	210,544,939	185,420,442	7,665,700,884	6,979,999,946
Funded ratio on actuarial value of assets	33.33%	38.26%	70.81%	73.06%	35.60%	40.31%
Market value of assets	\$3,538,878,093	\$3,503,007,035	\$510,628,492	\$443,511,663	\$4,049,506,585	\$3,946,518,698
Unfunded liability on market value of assets	7,643,263,939	7,501,788,054	210,664,952	244,637,788	7,853,928,891	7,746,425,842
Funded ratio on market value of assets	31.65%	31.83%	70.79%	64.45%	34.02%	33.75%
Insurance						
Actuarial accrued liability	\$4,280,089,633	\$4,466,136,041	\$507,058,767	\$493,297,529	\$4,787,148,400	\$4,959,433,570
Actuarial value of assets	451,620,442	471,341,628	329,961,615	314,427,296	781,582,057	785,768,924
Unfunded liability on actuarial value of assets	3,828,469,191	3,994,794,413	177,097,152	178,870,233	4,005,566,343	4,173,664,646
Funded ratio on actuarial value of assets	10.55%	10.55%	65.07%	63.74%	16.33%	15.84%
Market value of assets	\$433,305,243	\$371,002,484	\$321,071,515	\$271,395,843	\$754,376,758	\$642,398,327
Unfunded liability on market value of assets	3,846,784,390	4,095,133,557	185,987,252	221,901,686	4,032,771,642	4,317,035,243
Funded ratio on market value of assets	10.12%	8.31%	63.32%	55.02%	15.76%	12.95%
Demographic data as of valuation date:						
Number of retired participants and beneficiaries	38,597	37,945	3,064	2,835	41,661	40,780
Number of vested former members	6,265	5,875	334	319	6,599	6,194
Number of former members due a refund	32,332	31,806	2,930	2,836	35,262	34,642
Number of active members	46,617	47,090	4,291	4,291	50,908	51,381
Total salary	\$1,731,632,748	\$1,815,146,388	\$133,053,792	\$143,557,944	\$1,864,686,540	\$1,958,704,332
Average salary	\$37,146	\$38,546	\$31,008	\$33,456	\$36,629	\$38,121



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. However, plan designs have changed for the Health Insurance plans that cover Medicare eligible retirees and non-Medicare eligible retirees. The changes are summarized below.
 - The annual deductible and out-of-pocket maximum have been increased for Plan Year 2012 under the KRS Health Plan Medical Only, from the standard Part B deductible to \$500.
 - The prescription drug coverage under the KRS Health Plan Essential for Plan Years 2011 and 2012 have been altered to reflect the same coverage as described in the Standard Medicare Part D benefit parameters.
 - The annual deductible, out-of-pocket maximum and prescription drug co-payments have increased under the KRS Health Plan Premium for Plan Year 2011.
 - Plan design changes have also been implemented for Plan Year 2012 for the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky.
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, 2010 and June 30, 2011 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, 2011 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	46,617	\$1,731,632,748	\$37,146	43.8	9.4
Hazardous	4,291	133,053,792	31,008	41.3	6.9
Total in KERS	50,908	\$1,864,686,540	\$36,629	43.5	9.2

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
6/30/2006	46,707	\$1,702,230,777	\$36,445	3.7%
6/30/2007	47,913	1,780,223,493	37,155	1.9
6/30/2008	48,085	1,837,873,488	38,221	2.9
6/30/2009	46,060	1,754,412,912	38,090	(0.3)
6/30/2010	47,090	1,815,146,388	38,546	1.2
6/30/2011	46,617	1,731,632,748	37,146	(3.6)

SCHEDULE OF HAZARDOUS KERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2006	4,320	\$138,747,320	\$32,117	4.2%
6/30/2007	4,349	144,838,020	33,304	3.7
6/30/2008	4,393	148,710,060	33,852	1.6
6/30/2009	4,334	146,043,576	33,697	(0.5)
6/30/2010	4,291	143,557,944	33,456	(0.7)
6/30/2011	4,291	133,053,792	31,008	(7.3)



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	32,693	\$745,908,634	\$22,816	66.8
Disability	1,813	23,127,998	12,757	64.1
Beneficiary	4,091	52,160,646	12,750	69.8
Total in KERS	38,597	\$821,197,278	\$21,276	66.9

* Does not include annual benefits for those members included in the Hazardous System who are also receiving a portion of their benefit from the Non Hazardous System

Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	2,652	\$42,068,231	\$15,863	62.2
Disability	124	988,637	7,973	58.7
Beneficiary	288	2,552,361	8,862	60.5
Total in KERS	3,064	\$45,609,229	\$14,886	61.9

This valuation also includes 41,861 inactive members (38,597 Non-Hazardous and 3,264 Hazardous; of which 6,265 Non-Hazardous are vested and 334 Hazardous are vested).



SECTION III – ASSETS

- As of June 30, 2011 the total market value of assets amounted to \$4,803,883,343 as shown in the following table. The Insurance assets include both the amount in the health care trust and the amount in the 401(h) account in the pension trust established to meet the requirements of HB1.

MARKET VALUE OF ASSETS BY FUND AS OF JUNE 30, 2011

Member Group	Retirement	Insurance	KERS Total
Non-Hazardous	\$3,538,878,093	\$433,305,243	\$3,972,183,336
Hazardous	<u>510,628,492</u>	<u>321,071,515</u>	<u>831,700,007</u>
Total	\$4,049,506,585	\$754,376,758	\$4,803,883,343

- The five-year smoothed market related actuarial value of assets used for the current valuation was \$5,019,316,649. Schedule B shows the development of the actuarial value of assets as of June 30, 2011. The following table shows the actuarial value of assets allocated among member groups.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	June 30, 2011	June 30, 2010
Retirement		
Non-Hazardous	\$ 3,726,986,087	\$ 4,210,215,585
Hazardous	<u>510,748,505</u>	<u>502,729,009</u>
Total	\$ 4,237,734,592	\$ 4,712,944,594
Insurance		
Non-Hazardous	\$ 451,620,442	\$ 471,341,628
Hazardous	<u>329,961,615</u>	<u>314,427,296</u>
Total	\$ 781,582,057	\$ 785,768,924
KERS Total		
Non-Hazardous	\$ 4,178,606,529	\$ 4,681,557,213
Hazardous	<u>840,710,120</u>	<u>817,156,305</u>
Total	\$ 5,019,316,649	\$ 5,498,713,518



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, 2011. 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 \$13,437,295,219, of which \$8,739,190,590 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$233,918,844 is for the prospective benefits payable on account of present inactive members, and \$4,464,185,785 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 \$4,237,734,592 as of June 30, 2011. The difference of \$9,199,560,627 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, \$888,189,011 is the present value of future contributions expected to be made by members, and the balance of \$8,311,371,616 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 3.84% of payroll for non-hazardous members and 6.88% of payroll for hazardous members are required to fund the continuing benefit accruals for the average active member of KERS.
3. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$645,670,732. When this amount is subtracted from \$8,311,371,616, which is the present value of the total future contributions to be made by the employers, there remains \$7,665,700,884 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 23.65% 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 8.69% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$7,455,155,945 for non-hazardous members and \$210,544,939 for hazardous members over 26 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.54% of payroll for non-hazardous members and 0.59% 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 \$6,444,139,426, of which \$2,564,143,223 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$289,399,616 is for the prospective benefits payable on account of present inactive members, and \$3,590,596,587 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 \$781,582,057 as of June 30, 2011. The difference of \$5,662,557,369 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, \$39,847,795 is the present value of future contributions expected to be made by members, and the balance of \$5,622,709,574 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 7.75% of payroll for non-hazardous members and 12.25% of payroll for hazardous members are required to fund the continuing benefit accruals for the average active member of KERS.
3. Prospective employer normal contributions on account of insurance benefits at the above rates have a present value of \$1,617,143,231. When this amount is subtracted from \$5,622,709,574, which is the present value of the total future contributions to be made by the employers, there remains \$4,005,566,343 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 8.50% 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 7.31% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$3,828,469,191 for non-hazardous members and \$177,097,152 for hazardous members over 26 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.27% of payroll for non-hazardous members and 0.17% 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, 2011 is shown below (\$ millions).

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

	Non-Hazardous Group	Hazardous Group	Total
(1) UAAL* as of 6/30/10	\$ 6,794.6	\$ 185.4	\$ 6,980.0
(2) Normal cost from last valuation	76.8	10.3	87.1
(3) Employer contributions	193.8	19.1	212.9
(4) Interest accrual: [(1) + (2)] x .0775 - (3) x .03875	525.0	14.4	539.4
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 7,202.6	\$ 191.0	\$ 7,393.6
(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)	\$ 7,202.6	\$ 191.0	\$ 7,393.6
(9) Actual UAAL as of 6/30/11	\$ 7,455.2	\$ 210.5	\$ 7,665.7
(10) Gain/(loss): (8) - (9)	\$ (252.6)	\$ (19.5)	\$ (272.1)
(11) Accrued liabilities as of 6/30/10	\$ 11,004.8	\$ 688.1	\$ 11,692.9
(12) Gain/(loss) as percent of actuarial accrued liabilities at start of year	(2.3%)	(2.8%)	(2.3%)

*Unfunded actuarial accrued liability.



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

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/10	\$ 3,994.8	\$ 178.9	\$ 4,173.7
(2)	Normal cost from last valuation	145.6	18.5	164.1
(3)	Expected employer contributions	<u>293.6</u>	<u>28.1</u>	<u>321.7</u>
(4)	Interest accrual: Non-Haz: [(1) + (2) - (3)] x .045 Haz: [(1) + (2) - (3)] x .0775	173.1	13.1	186.2
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 4,019.9	\$ 182.4	\$ 4,202.3
(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)	\$ 4,019.9	\$ 182.4	\$ 4,202.3
(9)	Actual UAAL as of 6/30/11	\$ 3,828.5	\$ 177.1	\$ 4,005.6
(10)	Gain/(loss): (8) - (9)	\$ 191.4	\$ 5.3	\$ 196.7
(11)	Accrued liabilities as of 6/30/10	\$ 4,466.1	\$ 493.3	\$ 4,959.4
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	4.3%	1.1%	4.0%

* *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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (108.3)	\$ (47.4)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(14.2)	2.0
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.9)	(2.0)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	42.3	26.1
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.	194.1	332.4
New Members. Additional unfunded accrued liability will produce a loss.	(6.2)	(6.3)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(242.7)	(24.7)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	22.4	41.0
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(139.1)</u>	<u>(129.7)</u>
Gain (or Loss) During Year From Financial Experience	\$ (252.6)	\$ 191.4
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (252.6)	\$ 191.4



**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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (36.4)	\$ (21.9)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.3)	0.7
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.1	(0.3)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	18.5	7.8
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.	18.6	39.7
New Members. Additional unfunded accrued liability will produce a loss.	(1.2)	(0.8)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(15.9)	(11.0)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	2.6	10.2
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(5.5)</u>	<u>(19.1)</u>
Gain (or Loss) During Year From Financial Experience	\$ (19.5)	\$ 5.3
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (19.5)	\$ 5.3



**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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (144.7)	\$ (69.3)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(14.5)	2.7
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.8)	(2.3)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	60.8	33.9
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.	212.7	372.1
New Members. Additional unfunded accrued liability will produce a loss.	(7.4)	(7.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(258.6)	(35.7)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	25.0	51.2
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(144.6)</u>	<u>(148.8)</u>
Gain (or Loss) During Year From Financial Experience	\$ (272.1)	\$ 196.7
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (272.1)	\$ 196.7



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 2012/2013 fiscal year.

**Required Contribution Rates
Non-Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 139,877,393	8.08%
(2) Disability benefits	10,901,972	0.63
(3) Survivor benefits	2,258,063	0.13
(4) Total	\$ 153,037,428	8.84%
B. Member Contributions	\$ 86,581,637	5.00%
C. Employer Normal Cost: [A(4) - B]	\$ 66,455,791	3.84%
D. Administrative Expenses	\$ 9,350,817	0.54%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/10 Valuation:	\$ 347,538,693	20.07%
(2) Change due to:		
a. Active decrements	\$ 4,008,488	0.23%
b. Pay increases	(10,661,350)	(0.62)
c. Retiree mortality	(1,235,344)	(0.07)
d. Investment return	12,803,687	0.74
e. COLA	6,215,714	0.36
f. Assumption Change	0	0.00
g. Other	50,919,439	2.93
h. Total Change	\$ 62,050,633	3.58%
(3) UAAL Contribution Based on 6/30/11 Valuation: [E(1) +E(2)h]	\$ 409,589,326	23.65%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 485,395,934	28.03%

**Based on 27 year amortization of the UAAL from June 30, 2010 and 26 years from June 30, 2011*



**Required Contribution Rates
Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 18,234,022	13.50%
(2) Disability benefits	1,212,846	0.88
(3) Survivor benefits	354,574	0.25
(4) Total	<u>\$ 19,801,442</u>	<u>14.88%</u>
B. Member Contributions	\$ 10,644,303	8.00%
C. Employer Normal Cost: [A(4) - B]	\$ 9,157,139	6.88%
D. Administrative Expenses	\$ 785,017	0.59%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/10 Valuation:	\$ 9,207,322	6.92%
(2) Change due to:		
a. Active decrements	\$ 993,072	0.75%
b. Pay increases	(1,021,656)	(0.77)
c. Retiree mortality	(140,326)	(0.11)
d. Investment return	829,336	0.62
e. COLA	344,218	0.26
f. Assumption Change	0	0.00
g. Other	1,355,460	1.01
h. Total Change	<u>\$ 2,360,103</u>	<u>1.77%</u>
(3) UAAL Contribution Based on 6/30/11 Valuation: [E(1) +E(2)h]	\$ 11,567,425	8.69%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 21,509,581	16.16%

* Based on 27 year amortization of the UAAL from June 30, 2010 and 26 years from June 30, 2011



**Required Contribution Rates
Non-Hazardous Insurance**

Contribution for	Amount	% of Payroll
A. Normal Cost:	\$ 136,651,990	7.89%
B. Member Contributions*	\$ 2,424,286	0.14%
C. Employer Normal Cost: [A - B]	\$ 134,227,704	7.75%
D. Administrative Expenses	\$ 4,666,615	0.27%
E. Unfunded Actuarial Accrued Liability**:	\$ 147,248,815	8.50%
F. Total Recommended Employer Contribution Rate: [C+D+E]	\$ 286,143,134	16.52%

**The liabilities are net of retiree contributions towards their healthcare*

*** Based on 26 year amortization of the UAAL from June 30, 2011*

**Required Contribution Rates
Hazardous Insurance**

Contribution for	Amount	% of Payroll
A. Normal Cost:	\$ 16,526,329	12.42%
B. Member Contributions*	\$ 226,191	0.17%
C. Employer Normal Cost: [A - B]	\$ 16,300,138	12.25%
D. Administrative Expenses	\$ 222,983	0.17%
E. Unfunded Actuarial Accrued Liability**:	\$ 9,729,790	7.31%
F. Total Recommended Employer Contribution Rate: [C+D+E]	\$ 26,252,911	19.73%

**The liabilities are net of retiree contributions towards their healthcare*

*** Based on 26 year amortization of the UAAL from June 30, 2011*



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, 2011**

GROUP	NUMBER		
	Non-Hazardous	Hazardous	Total
Retirees and beneficiaries currently receiving benefits	38,597	3,064	41,661
Terminated employees entitled to benefits but not yet receiving benefits	38,597	3,264	41,861
Active Members	46,617	4,291	50,908
Total	123,811	10,619	134,430

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						
6/30/2006	\$ 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
6/30/2008	5,318,792,893	10,129,689,985	4,810,897,092	52.5	1,837,873,488	261.8
6/30/2009	4,794,611,365	10,658,549,532	5,863,938,167	45.0	1,754,412,912	334.2
6/30/2010	4,210,215,585	11,004,795,089	6,794,579,504	38.3	1,815,146,388	374.3
6/30/2011	3,726,986,087	11,182,142,032	7,455,155,945	33.3	1,731,632,748	430.5
Hazardous Members						
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
6/30/2008	502,132,214	618,010,827	115,878,613	81.2	148,710,060	77.9
6/30/2009	502,503,287	674,411,781	171,908,494	74.5	146,043,576	117.7
6/30/2010	502,729,009	688,149,451	185,420,442	73.1	143,557,944	129.2
6/30/2011	510,748,505	721,293,444	210,544,939	70.8	133,053,792	158.2
Total KERS Members						
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
6/30/2008	5,820,925,107	10,747,700,812	4,926,775,705	54.2	1,986,583,548	248.0
6/30/2009	5,297,114,652	11,332,961,313	6,035,846,661	46.7	1,900,456,488	317.6
6/30/2010	4,712,944,594	11,692,944,540	6,979,999,946	40.3	1,958,704,332	356.4
6/30/2011	4,237,734,592	11,903,435,476	7,665,700,884	35.6	1,864,686,540	411.1



**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						
6/30/2006	\$ 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
6/30/2008	603,197,761	5,431,499,285	4,828,301,524	11.1	1,837,873,488	262.7
6/30/2009	534,172,580	4,507,325,571	3,973,152,991	11.9	1,754,412,912	226.5
6/30/2010	471,341,628	4,466,136,041	3,994,794,413	10.6	1,815,146,388	220.1
6/30/2011	451,620,442	4,280,089,633	3,828,469,191	10.6	1,731,632,748	221.1
Hazardous Members						
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
6/30/2008	288,161,759	541,657,214	253,495,455	53.2	148,710,060	170.5
6/30/2009	301,634,592	491,132,170	189,497,578	61.4	146,043,576	129.8
6/30/2010	314,427,296	493,297,529	178,870,233	63.7	143,557,944	124.6
6/30/2011	329,961,615	507,058,767	177,097,152	65.1	133,053,792	133.1
Total KERS Members						
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
6/30/2008	891,359,520	5,973,156,499	5,081,796,979	14.9	1,986,583,548	255.8
6/30/2009	835,807,172	4,998,457,741	4,162,650,569	16.7	1,900,456,488	219.0
6/30/2010	785,768,924	4,959,433,570	4,173,664,646	15.8	1,958,704,332	213.1
6/30/2011	781,582,057	4,787,148,400	4,005,566,343	16.3	1,864,686,540	214.8



**RETIREMENT BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Annual Required Contribution	Actual Contributions	Percentage Contributed
Non-Hazardous Members			
June 30, 2006	129,125,800	60,680,607	47.0%
June 30, 2007	176,774,106	88,248,677	49.9
June 30, 2008	264,742,985	104,655,217	39.5
June 30, 2009	294,495,010	112,383,083	38.2
June 30, 2010	348,494,678	144,050,560	41.3
June 30, 2011	381,915,236	193,754,471	50.7
Hazardous Members			
June 30, 2006	10,787,472	10,803,206	100.1%
June 30, 2007	12,219,689	13,237,321	108.3
June 30, 2008	14,147,341	15,257,079	107.8
June 30, 2009	15,708,254	15,843,289	100.9
June 30, 2010	17,814,630	17,658,058	99.1
June 30, 2011	20,605,070	19,140,508	92.9
Total KERS Members			
June 30, 2006	139,913,272	71,483,813	51.1%
June 30, 2007	188,993,795	101,485,998	53.7
June 30, 2008	278,890,326	119,912,296	43.0
June 30, 2009	310,203,264	128,226,372	41.3
June 30, 2010	366,309,308	161,708,618	44.1
June 30, 2011	402,520,306	212,894,979	52.9



INSURANCE BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended	Annual Required Contribution	Retiree Drug Subsidy (RDS) Contribution	Employer Contributions	Total Contributions	Percentage Contributed
Non-Hazardous Members					
June 30, 2006	\$ 202,498,302	\$ 0	\$ 47,634,639	\$ 47,634,639	23.5%
June 30, 2007	219,768,964	10,744,049	64,014,332	74,758,381	34.0
June 30, 2008	558,745,820	6,633,538	56,744,942	63,378,480	11.3
June 30, 2009	362,707,378	8,167,982	74,542,932	82,710,914	22.8
June 30, 2010	376,556,187	8,550,914	93,976,917	102,527,831	27.2
June 30, 2011	294,897,813	0	129,335,552	129,335,552	43.9
Hazardous Members					
June 30, 2006	\$ 28,517,563	\$ 0	\$ 17,011,745	\$ 17,011,745	59.7%
June 30, 2007	31,304,778	104,669	19,534,819	19,639,488	62.7
June 30, 2008	51,214,929	73,891	21,997,341	22,071,232	43.1
June 30, 2009	34,670,467	186,081	20,807,204	20,993,285	60.6
June 30, 2010	35,045,278	319,059	21,921,535	22,240,594	63.5
June 30, 2011	29,585,257	0	19,952,580	19,952,580	67.4
Total KERS Members					
June 30, 2006	\$ 231,015,865	\$ 0	\$ 64,646,384	\$ 64,646,384	28.0%
June 30, 2007	251,073,742	10,848,718	83,549,151	94,397,869	37.6
June 30, 2008	609,960,749	6,707,429	78,742,283	85,449,712	14.0
June 30, 2009	397,377,845	8,354,063	95,350,136	103,704,199	26.1
June 30, 2010	411,601,465	8,869,973	115,898,452	124,768,425	30.3
June 30, 2011	324,483,070	0	149,288,132	149,288,132	46.0



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

Retirement Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2011	6/30/2011
Actuarial cost method	Entry Age	Entry Age
Amortization	Level Percent Closed	Level Percent Closed
Remaining amortization period	26 years	26 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**	5.0% - 17.0%	5.0% - 21.0%
Cost-of-living adjustment	None	None
*Includes price inflation at	3.50%	3.50%
**Includes wage inflation at	4.50%	4.50%

Insurance Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2011	6/30/2011
Actuarial cost method	Entry Age	Entry Age
Amortization	Level Percent Closed	Level Percent Closed
Remaining amortization period	26 years	26 years
Asset valuation method	5 Year Smoothed Market	5 Year Smoothed Market
Medical Trend Assumption (Pre-Medicare)	10.5% - 5.0%	10.5% - 5.0%
Medical Trend Assumption (Post-Medicare)	8.5% - 5.0%	8.5% - 5.0%
Year Ultimate Trend	2019	2019
Actuarial assumptions:		
Investment rate of return*	4.50%	7.75%
*Includes price 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, 2011 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2010. 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, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 3,726,986,087	\$ 4,210,215,585
Prospective contributions		
Member contributions	\$ 797,874,166	\$ 842,839,073
Employer normal contributions	570,896,611	605,961,561
Unfunded accrued liability contributions	<u>7,455,155,945</u>	<u>6,794,579,504</u>
Total prospective contributions	<u>\$ 8,823,926,722</u>	<u>\$ 8,243,380,138</u>
Total assets	<u><u>\$ 12,550,912,809</u></u>	<u><u>\$ 12,453,595,723</u></u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 8,268,747,284	\$ 8,129,008,670
Present value of benefits payable on account of active members	4,068,198,453	4,123,837,921
Present value of benefits payable on account of inactive members	<u>213,967,072</u>	<u>200,749,132</u>
Total liabilities	<u><u>\$ 12,550,912,809</u></u>	<u><u>\$ 12,453,595,723</u></u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 510,748,505	\$ 502,729,009
Prospective contributions		
Member contributions	\$ 90,314,845	\$ 97,124,570
Employer normal contributions	74,774,121	80,303,469
Unfunded accrued liability contributions	<u>210,544,939</u>	<u>185,420,442</u>
Total prospective contributions	<u>\$ 375,633,905</u>	<u>\$ 362,848,481</u>
Total assets	<u>\$ 886,382,410</u>	<u>\$ 865,577,490</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 470,443,306	\$ 423,253,307
Present value of benefits payable on account of active members	395,987,332	423,920,249
Present value of benefits payable on account of inactive members	<u>19,951,772</u>	<u>18,403,934</u>
Total liabilities	<u>\$ 886,382,410</u>	<u>\$ 865,577,490</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 4,237,734,592	\$ 4,712,944,594
Prospective contributions		
Member contributions	\$ 888,189,011	\$ 939,963,643
Employer normal contributions	645,670,732	686,265,030
Unfunded accrued liability contributions	<u>7,665,700,884</u>	<u>6,979,999,946</u>
Total prospective contributions	<u>\$ 9,199,560,627</u>	<u>\$ 8,606,228,619</u>
Total assets	<u>\$ 13,437,295,219</u>	<u>\$ 13,319,173,213</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 8,739,190,590	\$ 8,552,261,977
Present value of benefits payable on account of active members	4,464,185,785	4,547,758,170
Present value of benefits payable on account of inactive members	<u>233,918,844</u>	<u>219,153,066</u>
Total liabilities	<u>\$ 13,437,295,219</u>	<u>\$ 13,319,173,213</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 451,620,442	\$ 471,341,628
Prospective contributions		
Member contributions	\$ 37,443,473	\$ 26,873,691
Employer normal contributions	1,489,811,511	1,668,710,243
Unfunded accrued liability contributions	<u>3,828,469,191</u>	<u>3,994,794,413</u>
Total prospective contributions	<u>\$ 5,355,724,175</u>	<u>\$ 5,690,378,347</u>
Total assets	<u>\$ 5,807,344,617</u>	<u>\$ 6,161,719,975</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 2,296,980,336	\$ 2,456,024,556
Present value of benefits payable on account of active members	3,239,341,639	3,417,185,921
Present value of benefits payable on account of inactive members	<u>271,022,642</u>	<u>288,509,498</u>
Total liabilities	<u>\$ 5,807,344,617</u>	<u>\$ 6,161,719,975</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 329,961,615	\$ 314,427,296
Prospective contributions		
Member contributions	\$ 2,404,322	\$ 1,629,576
Employer normal contributions	127,331,720	146,536,132
Unfunded accrued liability contributions	<u>177,097,152</u>	<u>178,870,233</u>
Total prospective contributions	<u>\$ 306,833,194</u>	<u>\$ 327,035,941</u>
Total assets	<u>\$ 636,794,809</u>	<u>\$ 641,463,237</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 267,162,887	\$ 252,518,614
Present value of benefits payable on account of active members	351,254,948	372,952,528
Present value of benefits payable on account of inactive members	<u>18,376,974</u>	<u>15,992,095</u>
Total liabilities	<u>\$ 636,794,809</u>	<u>\$ 641,463,237</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 781,582,057	\$ 785,768,924
Prospective contributions		
Member contributions	\$ 39,847,795	\$ 28,503,267
Employer normal contributions	1,617,143,231	1,815,246,375
Unfunded accrued liability contributions	<u>4,005,566,343</u>	<u>4,173,664,646</u>
Total prospective contributions	<u>\$ 5,662,557,369</u>	<u>\$ 6,017,414,288</u>
Total assets	<u>\$ 6,444,139,426</u>	<u>\$ 6,803,183,212</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 2,564,143,223	\$ 2,708,543,170
Present value of benefits payable on account of active members	3,590,596,587	3,790,138,449
Present value of benefits payable on account of inactive members	<u>289,399,616</u>	<u>304,501,593</u>
Total liabilities	<u>\$ 6,444,139,426</u>	<u>\$ 6,803,183,212</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)				
6/30/2006	\$ 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
6/30/2008	875,178,068	7,162,496,700	2,092,015,217	5,318,792,893	100.0	62.0	0.0
6/30/2009	793,574,765	8,205,155,691	1,659,819,076	4,794,611,365	100.0	48.8	0.0
6/30/2010	869,484,042	8,329,757,802	1,805,553,245	4,210,215,585	100.0	40.1	0.0
6/30/2011	916,568,932	8,482,714,356	1,782,858,744	3,726,986,087	100.0	33.1	0.0

**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)				
6/30/2006	\$ 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
6/30/2008	89,590,638	355,771,877	172,648,312	502,132,214	100.0	100.0	32.9
6/30/2009	87,779,938	413,972,356	172,659,487	502,503,287	100.0	100.0	0.4
6/30/2010	88,511,283	441,657,241	157,980,927	502,729,009	100.0	93.8	0.0
6/30/2011	86,614,205	490,395,078	144,284,161	510,748,505	100.0	86.5	0.0



**Solvency Test
Insurance 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)				
6/30/2006	\$ 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
6/30/2008	0	2,788,189,754	2,643,309,531	603,197,761	100.0	21.6	0.0
6/30/2009	0	2,861,867,088	1,645,458,483	534,172,580	100.0	18.7	0.0
6/30/2010	0	2,744,534,054	1,721,601,987	471,341,628	100.0	17.2	0.0
6/30/2011	0	2,568,002,978	1,712,086,655	451,620,442	100.0	17.6	0.0

**Solvency Test
Insurance 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)				
6/30/2006	\$ 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
6/30/2008	0	228,834,940	312,822,274	288,161,759	100.0	100.0	19.0
6/30/2009	0	242,123,365	249,008,805	301,634,592	100.0	100.0	23.9
6/30/2010	0	268,510,709	224,786,820	314,427,296	100.0	100.0	20.4
6/30/2011	0	285,539,861	221,518,906	329,961,615	100.0	100.0	20.1

SCHEDULE B

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



Valuation date June 30:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 4,794,611,365	\$ 4,210,215,585				
B. Market Value End of Year	3,503,007,035	3,538,878,093				
C. Market Value Beginning of Year	3,584,196,429	3,503,007,035				
D. Cash Flow						
D1. Contributions	234,830,687	303,633,346				
D2. Benefit Payments	(834,513,585)	(849,302,748)				
D3. Administrative Expenses	(8,423,658)	(9,299,947)				
D4. Investment Expenses	<u>(12,902,243)</u>	<u>(17,600,109)</u>				
D5. Net	(621,008,799)	(572,569,458)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	539,819,405	608,440,516				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	267,113,337	267,578,092				
E4. Amount for Phased-In Recognition	272,706,068	340,862,424				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	54,541,214	68,172,485	0	0	0	0
F2. First Prior Year	(247,227,791)	54,541,214	68,172,485	0	0	0
F3. Second Prior Year	(129,965,994)	(247,227,791)	54,541,214	68,172,485	0	0
F4. Third Prior Year	76,241,954	(129,965,994)	(247,227,791)	54,541,214	68,172,485	0
F5. Fourth Prior Year	<u>15,910,299</u>	<u>76,241,954</u>	<u>(129,965,994)</u>	<u>(247,227,791)</u>	<u>54,541,214</u>	<u>68,172,485</u>
F6. Total Recognized Investment Gain	(230,500,318)	(178,238,132)	(254,480,086)	(124,514,092)	122,713,699	68,172,485
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 4,210,215,585	\$ 3,726,986,087				
H. Difference Between Market & Actuarial Values	\$ (707,208,550)	\$ (188,107,994)	\$ 66,372,092	\$ 190,886,184	\$ 68,172,485	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 502,503,287	\$ 502,729,009				
B. Market Value End of Year	443,511,663	510,628,492				
C. Market Value Beginning of Year	388,913,374	443,511,663				
D. Cash Flow						
D1. Contributions	28,768,529	32,099,490				
D2. Benefit Payments	(39,082,467)	(46,571,518)				
D3. Administrative Expenses	(737,035)	(783,633)				
D4. Investment Expenses	(1,479,708)	(2,052,991)				
D5. Net	(12,530,681)	(17,308,652)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	67,128,970	84,425,481				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	31,192,269	35,833,988				
E4. Amount for Phased-In Recognition	35,936,701	48,591,493				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	7,187,340	9,718,299	0	0	0	0
F2. First Prior Year	(24,273,865)	7,187,340	9,718,299	0	0	0
F3. Second Prior Year	(12,007,500)	(24,273,865)	7,187,340	9,718,299	0	0
F4. Third Prior Year	8,869,886	(12,007,500)	(24,273,865)	7,187,340	9,718,299	0
F5. Fourth Prior Year	1,788,273	8,869,886	(12,007,500)	(24,273,865)	7,187,340	9,718,299
F6. Total Recognized Investment Gain	(18,435,866)	(10,505,840)	(19,375,726)	(7,368,226)	16,905,639	9,718,299
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 502,729,009	\$ 510,748,505				
H. Difference Between Market & Actuarial Values	\$ (59,217,346)	\$ (120,013)	\$ 19,255,713	\$ 26,623,939	\$ 9,718,299	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 534,172,580	\$ 471,341,628				
B. Market Value End of Year	371,002,484	433,305,243				
C. Market Value Beginning of Year	365,771,088	371,002,484				
D. Cash Flow						
D1. Contributions	116,616,692	155,036,517				
D2. Benefit Payments	(157,817,320)	(161,804,578)				
D3. Administrative Expenses	(4,332,929)	(4,666,615)				
D4. Investment Expenses	<u>(1,138,191)</u>	<u>(1,382,872)</u>				
D5. Net	(46,671,748)	(12,817,548)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	51,903,144	75,120,307				
E2. Assumed Rate	4.50%	4.50%				
E3. Amount for Immediate Recognition	16,573,385	17,820,704				
E4. Amount for Phased-In Recognition	35,329,759	57,299,603				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	7,065,952	11,459,921	0	0	0	0
F2. First Prior Year	(35,906,883)	7,065,952	11,459,921	0	0	0
F3. Second Prior Year	(13,538,974)	(35,906,883)	7,065,952	11,459,921	0	0
F4. Third Prior Year	6,195,642	(13,538,974)	(35,906,883)	7,065,952	11,459,921	0
F5. Fourth Prior Year	<u>3,451,674</u>	<u>6,195,642</u>	<u>(13,538,974)</u>	<u>(35,906,883)</u>	<u>7,065,952</u>	<u>11,459,921</u>
F6. Total Recognized Investment Gain	(32,732,589)	(24,724,342)	(30,919,984)	(17,381,010)	18,525,873	11,459,921
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 471,341,628	\$ 451,620,442				
H. Difference Between Market & Actuarial Values	\$ (100,339,144)	\$ (18,315,199)	\$ 12,604,785	\$ 29,985,795	\$ 11,459,921	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 301,634,592	\$ 314,427,296				
B. Market Value End of Year	271,395,843	321,071,515				
C. Market Value Beginning of Year	219,537,255	271,395,843				
D. Cash Flow						
D1. Contributions	23,107,913	20,887,821				
D2. Benefit Payments	(13,455,544)	(15,328,070)				
D3. Administrative Expenses	(200,324)	(222,983)				
D4. Investment Expenses	(551,875)	(840,645)				
D5. Net	8,900,170	4,496,123				
E. Investment Income						
E1. Market Total: B.-C.-D5.	42,958,418	45,179,549				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	17,932,279	22,080,623				
E4. Amount for Phased-In Recognition	25,026,139	23,098,926				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	5,005,228	4,619,785	0	0	0	0
F2. First Prior Year	(16,386,736)	5,005,228	4,619,785	0	0	0
F3. Second Prior Year	(9,611,455)	(16,386,736)	5,005,228	4,619,785	0	0
F4. Third Prior Year	5,330,751	(9,611,455)	(16,386,736)	5,005,228	4,619,785	0
F5. Fourth Prior Year	1,622,467	5,330,751	(9,611,455)	(16,386,736)	5,005,228	4,619,785
F6. Total Recognized Investment Gain	(14,039,745)	(11,042,427)	(16,373,178)	(6,761,723)	9,625,013	4,619,785
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 314,427,296	\$ 329,961,615				
H. Difference Between Market & Actuarial Values	\$ (43,031,453)	\$ (8,890,100)	\$ 7,483,078	\$ 14,244,801	\$ 4,619,785	\$ 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 based on the actuarial experience study prepared as of June 30, 2008, submitted August 14, 2009, and adopted by the Board on August 20, 2009.

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 insurance benefits is 4.50%, and the current rate for KERS hazardous insurance benefits 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 4.50% per annum:

Service	Annual Rates of				
	Merit & Seniority		Base (Economy)	Increase Next Year	
	Non-Hazardous	Hazardous		Non-Hazardous	Hazardous
0-1	12.50%	16.50%	4.50%	17.00%	21.00%
1-2	4.50%	4.50%	4.50%	9.00%	9.00%
2-3	2.00%	2.50%	4.50%	6.50%	7.00%
3-4	1.50%	2.00%	4.50%	6.00%	6.50%
4-5	1.50%	1.50%	4.50%	6.00%	6.00%
5-6	1.50%	1.00%	4.50%	6.00%	5.50%
6-7	1.00%	0.50%	4.50%	5.50%	5.00%
7-8	1.00%	0.50%	4.50%	5.50%	5.00%
8-9	1.00%	0.50%	4.50%	5.50%	5.00%
9-10	0.50%	0.50%	4.50%	5.00%	5.00%
10 & over	0.50%	0.50%	4.50%	5.00%	5.00%



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 ⁺	Service Retirement ⁺⁺
		Male	Female				
20	6.00%	0.03%	0.01%	0.04%			
25	5.08	0.03	0.01	0.05			
30	4.26	0.04	0.02	0.06			
35	3.21	0.04	0.02	0.09			
40	3.00	0.05	0.04	0.13			
45	3.00	0.08	0.05	0.22			
50	3.00	0.13	0.07	0.37			
55	3.00	0.22	0.11	0.61	8.0%		
60	3.00	0.40	0.22	0.97	10.0	10.0%	
65		0.73	0.43		22.5	25.0	
70		1.19	0.69		22.5	25.0	
75					100.0	100.0	

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 19.0%, 13.0%, 10.0%, 9.0% and 6.5%, respectively.

+ For members participating before 9/1/2008. If service is at least 27 years, the rate is 25%.

++ For members participating on or after 9/1/2008. If age plus service is at least 87, the rate is 25%.

Hazardous Members

Age	Withdrawal and Vesting*	Death**			Service Retirement		
		Male	Female	Disability	Service	Rate ⁺	Rate ⁺⁺
20	4.00%	0.03%	0.01%	0.05%	20	22.0%	
25	4.00	0.03	0.01	0.07	25	35.0	22.0%
30	3.50	0.04	0.02	0.09	30	38.0	35.0
35	3.00	0.04	0.02	0.13	35	60.0	38.0
40	3.00	0.05	0.04	0.20	40		60.0
45	3.00	0.08	0.05	0.33			
50	3.00	0.13	0.07	0.56			
55	3.00	0.22	0.11	0.92			
60	3.00	0.40	0.22	1.46			

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 26.0%, 11.5%, 8.25%, 7.5% and 7.0%, respectively.

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

+ For members participating before 9/1/2008. The annual rate of service retirement is 100% at age 65.

++ For members participating on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.



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. There is some margin in the current mortality tables for possible future improvement in mortality rates and that margin will be reviewed again when the next experience investigation is conducted.

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 and is projected forward using the healthcare trend assumption. No implicit rate subsidy is calculated or recognized as the subsidy is the responsibility of KEHP. For the Medicare-eligible retirees, claims were analyzed and current premiums were utilized with appropriate aging factors applied.

ASSET VALUATION METHOD: 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.

HEALTH CARE BENEFITS VALUED: Medical and drug benefits for retirees under age 65 and Medicare eligible.

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

Fiscal Year Ended	Trend	
	Under Age 65	Age 65 and Over
2012	10.5%	8.5%
2013	9.5%	7.5%
2014	8.5%	7.0%
2015	7.5%	6.5%
2016	6.5%	6.0%
2017	6.0%	5.5%
2018	5.5%	5.0%
2019 and beyond	5.0%	5.0%

HEALTH CARE 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



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

Medical	Non-Hazardous	Hazardous
Participation	90%	100%

HEALTH CARE MONTHLY RATES: Following are charts detailing expected monthly rates for pre-Medicare eligible and post-Medicare eligible retirees for the year following the valuation date.

**MEDICAL INSURANCE RATES
PRE-MEDICARE ELIGIBLE**

Effective January 1, 2011				
	Single	Parent Plus	Couple	Family
Total Premiums				
Standard PPO	\$486.40	\$749.84	\$1,127.80	\$1,253.56
Optimum PPO	\$650.30	\$905.42	\$1,405.66	\$1,565.88
Capitol Choice	\$625.68	\$909.02	\$1,387.36	\$1,537.92

Effective January 1, 2012				
	Single	Parent Plus	Couple	Family
Total Premiums				
Standard PPO	\$496.14	\$764.68	\$1,144.72	\$1,272.83
Optimum PPO	\$663.30	\$922.88	\$1,432.36	\$1,595.06
Capitol Choice	\$638.16	\$927.08	\$1,414.46	\$1,568.06

**MEDICAL INSURANCE RATES
MEDICARE ELIGIBLE**

Effective January 1, 2012	Self-Supporting Rates	Funding Rates
Available Plan	(Used for Claims Costs)	(Used for Retiree Contributions)
Kentucky Retirement System Health Plan - Medical Only	\$147.30	\$147.00
Kentucky Retirement System Health Plan - Essential	\$182.41	\$171.00
Kentucky Retirement System Health Plan - Premium	\$391.35	\$372.00

Above amounts are shown as average retiree costs. In the valuation, the claims costs are converted to age 65 amounts and age adjusted. In addition, the claims costs for the Essential and Premium plans are adjusted to reflect the front end CMS reimbursement of \$53.42 per member per month due to the EGWP.



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:

Members whose participation began before 8/1/2004

<i>Age Requirement</i>	65
<i>Service Requirement</i>	At least one month of non-hazardous duty service credit
<i>Amount</i>	<p>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 those members who retired between January 1, 1999 and January 31, 2009 with at least 240 months of service, the benefit factor is 2.20%.</p> <p>Final compensation is calculated by taking the average of the highest five (5) fiscal years of salary. If the number of months of service credit during the five (5) year period is less than forty-eight (48), one (1) or more additional fiscal years shall be used.</p> <p>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.</p>

Members whose participation began on or after 8/1/2004, but before 9/1/2008

<i>Age Requirement</i>	65
<i>Service Requirement</i>	At least one month of non-hazardous duty service credit
<i>Amount</i>	<p>If a member has at least 48 months of service, the monthly benefit is 2.00% multiplied by final average compensation, multiplied by years of service.</p> <p>Final compensation is calculated by taking the average of the highest five (5) fiscal years of salary. If the number of months of service credit during the five (5) year period is less than forty-eight (48), one (1) or more additional fiscal years shall be used.</p>



Non-Hazardous Normal Retirement (continued):

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 9/1/2008

Requirement

Age 65 with 60 months of non-hazardous duty service credit, or age 57 if age plus service equals at least 87.

Amount

The monthly benefit is the following benefit factor based on service credit at retirement plus 2.00% for each year of service greater than 30 years, multiplied by final average compensation, multiplied by years of service.

Service Credit	Benefit Factor
10 years or less	1.10%
10+ – 20 years	1.30%
20+ – 26 years	1.50%
26+ – 30 years	1.75%

Final compensation is calculated by taking the average of the last (not highest) five (5) complete fiscal years of salary. Each fiscal year used to determine final compensation must contain twelve (12) months of service credit.

Hazardous Normal Retirement:

Age Requirement

55

Service Requirement

At least one month of hazardous duty service credit

Amount

If a member has at least 60 months of service, the monthly benefit is 2.49% multiplied by final average compensation, multiplied by years of service.

Final compensation is calculated by taking the average of the highest three (3) fiscal years of salary. If the number of months of service credit during the three (3) year period is less than twenty-four (24), one (1) 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.

Members whose participation began on or after 9/1/2008

Age Requirement

60

Service Requirement

At least 60 months of hazardous duty service credit



Hazardous Normal Retirement (continued):

Amount

The monthly benefit is the following benefit factor based on service credit at retirement, multiplied by final average compensation, multiplied by years of service.

Service Credit	Benefit Factor
10 years or less	1.30%
10+ – 20 years	1.50%
20+ – 25 years	2.25%
25+ years	2.50%

Final compensation is calculated by taking the average of the highest three (3) complete fiscal years of salary. Each fiscal year used to determine final compensation must contain twelve (12) months of service credit.

Non-Hazardous Early Retirement:

Members whose participation began before 9/1/2008

Requirement

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

Amount

Normal retirement benefit reduced by 5.0% per year for the first five years and 4.0% 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.

Members whose participation began on or after 9/1/2008

Requirement

Age 60 with 10 years of service.

Amount

Normal retirement benefit reduced by 5.0% per year for the first five years and 4.0% per year for the next five years for each year the member is younger than age 65, or does not meet the rule of 87 (age plus service) and is younger than age 57, whichever is smaller.

Hazardous Early Retirement:

Members whose participation began before 9/1/2008

Requirement

Age 50 with 15 years of service or any age with 20 years 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 service, whichever is smaller.



Hazardous Early Retirement (continued):

Members whose participation began on or after 9/1/2008

Requirement

Age 50 with 15 years of service or any age with 25 years 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 60 or has less than 25 years 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 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, 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 (waived if in line of duty disability)

Members whose participation began before 8/1/2004

Normal retirement benefit except if the member's total service credit is less than 20 years, service credit will be added for the period from the last day of paid employment to the member's 55th birthday.



Hazardous Disability (continued):

The maximum service credit added will not exceed the total service the member had on this last day of paid employment and the maximum service credit for calculating his retirement allowance, including total service and service added will not exceed 20 years. May not apply if eligible for an unreduced retirement allowance.

A member in a hazardous position who is disabled in the line of duty is entitled to the normal retirement benefit based on years of service and final compensation determined as of the date of disability (no penalty), except that the monthly retirement allowance payable shall not be less than 25% of the member's monthly final rate of pay. Each dependent child shall receive 10% of the disabled member's monthly final rate of pay; however the total maximum dependent children's benefit shall not exceed 40% of the member's monthly final rate of pay.

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

Normal retirement benefit based on years of service and final compensation determined as of the date of disability (no penalty) or, if larger, 25% of the member's monthly final rate of pay. May apply for disability even after normal retirement age.

Vesting:

Members whose participation began before 9/1/2008

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.

Members whose participation began on or after 9/1/2008

Age Requirement

None

Service Requirement

60 months. Service purchased after August 1, 2004 does not count toward vesting insurance benefits.



Vesting (continued):

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 60 for hazardous members.

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

Requirement

Eligible for Normal or Early Retirement, or any age with 60 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 normal retirement age at the 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) benefit options offered under death not in line of duty.

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

Requirement

None

Amount

The non-spouse may choose (1) a \$10,000 lump sum payment or (2) benefit options offered under death not in line of duty.

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

Requirement

None

Amount

10% of member's final monthly rate of pay. Dependent child payments cannot exceed 40% of the member's monthly final rate of pay.

Post-Retirement Death Benefit:

Requirement

Retired member in receipt of monthly benefit based on at least 48 months or more of combined service with KERS, CERS or SPRS.

Amount

\$5,000



Non-Hazardous Member Contributions:

Members whose participation began before 9/1/2008

5% of all creditable compensation. Interest paid on the members' accounts will be set at 2.0%. Member entitled to a full refund of contributions with interest.

Members whose participation began on or after 9/1/2008

6% of all creditable compensation, with 5% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Interest paid on the members' accounts will be set at 2.5%. Member entitled to a full refund of contributions and interest in their individual account, however, the 1% contributed to the insurance fund is non-refundable.

Hazardous Member Contributions:

Members whose participation began before 9/1/2008

8% of all creditable compensation. Interest paid on the members' accounts will be set at 2.0%. Member entitled to a full refund of contributions with interest.

Members whose participation began on or after 9/1/2008

9% of all creditable compensation, with 8% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Interest paid on the members' accounts will be set at 2.5%. Member entitled to a full refund of contributions and interest in their individual account, however, the 1% contributed to the insurance fund is non-refundable.

DRAFT



Non-Hazardous Insurance Plan for Retirees:

Members whose participation began before 7/1/2003

Requirement

In receipt of a monthly retirement allowance.

Amount

The Retirement System pays a portion of medical premiums for retirees based on the retired member's years of service credit. The percentage of the monthly contribution rate paid is show in the following table.

Service Credit	Percentage Paid*
4 – 9 years	25%
10 – 14 years	50%
15 – 19 years	75%
20 or more years	100%

**100% of the monthly contribution is paid towards the health insurance for a retired member who is totally disabled from any employment as a result of a duty-related injury regardless of actual service. 100% of the monthly contribution is paid toward health insurance for the spouse and dependent children of a member who dies as a result of a duty related injury, regardless of the deceased member's service. The insurance benefit will be provided as long as the spouse and dependent children are eligible for a monthly benefit.*

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 7/1/2003, but before 9/1/2008

Requirement

Monthly retirement allowance with at least 120 months of service at retirement.

Amount

The Retirement System pays \$12.50 per month for each year of earned service for retirees. This amount is shown as of the valuation date and is indexed annually based on the CPI prior to July 1, 2008 and by 1.5% thereafter.

Members whose participation began on or after 9/1/2008

Requirement

Monthly retirement allowance with at least 180 months of service at retirement.

Amount

The Retirement System pays \$10 per month for each year of earned service for retirees. This amount will be increased annually by 1.5%.



Hazardous Insurance Plan for Retirees:

Members whose participation began before 7/1/2003

Requirement

In receipt of a monthly retirement allowance.

Amount

The Retirement System pays a portion of medical premiums for retirees, their spouse and their dependents based on the retired member's years of service credit. The percentage of the monthly contribution rate paid is show in the following table.

Service Credit	Percentage Paid*
4 – 9 years	25%
10 – 14 years	50%
15 – 19 years	75%
20 or more years	100%

**100% of the monthly contribution is paid towards the health insurance for a member, member's spouse and dependents if the member is disabled in the line of duty as a result of a duty-related injury, regardless of actual service. 100% of the monthly contribution is paid toward health insurance for the spouse and dependent children of a member who dies in the line of duty regardless of the deceased member's service. The insurance benefit will be provided as long as the spouse and dependent children are eligible for a monthly benefit.*

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 7/1/2003, but before 9/1/2008

Requirement

Monthly retirement allowance with at least 120 months of service at retirement.

Amount

The Retirement System pays \$18.76 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive \$12.50 per month for each year of earned. These amounts are shown as of the valuation date and are indexed annually based on the CPI prior to July 1, 2008 and by 1.5% thereafter.

Members whose participation began on or after 9/1/2008

Requirement

Monthly retirement allowance with at least 180 months of service at retirement.

Amount

The Retirement System pays \$15 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive \$10 per month for each year of earned. These amounts will be increased annually by 1.5%.



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	2006	2007	2008	2009	2010	2011
			<u>Number</u>			
Beginning of Year	30,770	32,140	33,849	35,307	37,883	37,945
Added	2,481	2,440	2,573	3,465	1,162	1,592
Removed	1,111	731	1,115	889	1,100	940
End of Year	32,140	33,849	35,307	37,883	37,945	38,597
			<u>Annual Allowances</u>			
Beginning of Year	\$ 509,347,800	\$ 566,167,003	\$ 625,435,416	\$ 710,505,270	\$ 812,559,070	\$ 801,881,911
Added	65,942,585	65,965,990	102,305,405	110,700,043	865,483	31,930,847
Removed	9,123,382	6,697,577	17,235,551	8,646,243	11,542,643	12,615,480
End of Year	\$ 566,167,003	\$ 625,435,416	\$ 710,505,270	\$ 812,559,070	\$ 801,881,911	\$ 821,197,278
% Increase in Allowances	11.31%	10.47%	13.60%	14.36%	-1.31%	2.41%
Average Annual Allowance	\$ 17,616	\$ 18,472	\$ 20,124	\$ 21,449	\$ 21,133	\$ 21,276



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

Year Ending June 30	2006	2007	2008	2009	2010	2011
	<u>Number</u>					
Beginning of Year	1,752	1,980	2,202	2,404	2,648	2,835
Added	256	241	261	339	282	288
Removed	28	19	59	95	95	59
End of Year	1,980	2,202	2,404	2,648	2,835	3,064
	<u>Annual Allowances</u>					
Beginning of Year	\$ 19,640,748	\$ 23,381,489	\$ 27,528,837	\$ 33,588,993	\$ 38,695,501	\$ 41,114,800
Added	3,929,666	4,509,381	6,565,454	5,443,628	3,315,361	5,012,933
Removed	188,829	362,129	505,250	337,120	896,062	518,504
End of Year	\$ 23,381,489	\$ 27,528,837	\$ 33,588,993	\$ 38,695,501	\$ 41,114,800	\$ 45,609,229
% Increase in Allowances	19.05%	17.94%	22.01%	15.20%	6.25%	10.93%
Average Annual Allowance	\$ 11,809	\$ 12,502	\$ 13,972	\$ 14,613	\$ 14,503	\$ 14,886



Non-Hazardous Retired Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	3,258	\$ 6,086,752.13	9,261	\$ 13,967,882.92	12,519	\$ 20,054,635.05
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	1,800	3,456,247.28	747	920,462.11	2,547	4,376,709.39
66-2/3% to Beneficiary	793	2,314,348.79	398	846,874.31	1,191	3,161,223.10
50% to Beneficiary	1,076	2,725,247.78	1,224	2,541,182.67	2,300	5,266,430.45
Pop-up Option	3,594	8,881,004.22	2,938	5,943,634.56	6,532	14,824,638.78
10 Years Certain	0	0.00	0	0.00	0	0.00
10 Years Certain & Life	876	1,536,304.24	1,897	2,871,970.91	2,773	4,408,275.15
Social Security Option						
Age 62 Basic	424	1,149,634.17	985	1,972,259.53	1,409	3,121,893.70
Age 62 Survivorship	872	2,178,287.53	581	1,235,877.49	1,453	3,414,165.02
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	0	0.00	0	0.00	0	0.00
Refund	0	0.00	0	0.00	0	0.00
15 Years Certain & Life	377	612,184.51	494	779,872.43	871	1,392,056.94
20 Years Certain & Life	397	852,447.43	467	777,642.53	864	1,630,089.96
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	88	141,562.30	310	460,580.29	398	602,142.59
PLSO 24 Month Basic	41	49,854.98	172	207,026.64	213	256,881.62
PLSO 36 Month Basic	180	154,715.28	430	329,865.64	610	484,580.92
PLSO 12 Month Survivor	119	238,383.60	106	179,041.94	225	417,425.54
PLSO 24 Month Survivor	96	140,254.88	82	117,321.66	178	257,576.54
PLSO 36 Month Survivor	257	277,990.09	166	139,671.18	423	417,661.27
Total	14,248	\$ 30,795,219.21	20,258	\$ 33,291,166.81	34,506	\$ 64,086,386.02



Hazardous Retired Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	403	\$ 450,772.84	311	\$ 312,135.50	714	\$ 762,908.34
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	207	241,165.70	19	20,672.43	226	261,838.13
66-2/3% to Beneficiary	76	97,566.70	19	21,363.23	95	118,929.93
50% to Beneficiary	130	190,732.82	40	65,201.75	170	255,934.57
Pop-up Option	649	932,675.91	121	149,262.73	770	1,081,938.64
10 Years Certain	22	32,921.19	5	5,238.89	27	38,160.08
10 Years Certain & Life	102	103,202.74	50	42,260.07	152	145,462.81
Social Security Option						
Age 62 Basic	55	109,097.47	32	55,576.58	87	164,674.05
Age 62 Survivorship	135	325,365.08	16	24,217.87	151	349,582.95
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	48	55,636.56	13	10,901.55	61	66,538.11
20 Years Certain & Life	48	56,828.53	19	29,732.63	67	86,561.16
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	14	13,209.47	15	12,737.48	29	25,946.95
PLSO 24 Month Basic	16	15,780.26	12	10,341.53	28	26,121.79
PLSO 36 Month Basic	48	39,390.07	26	21,584.00	74	60,974.07
PLSO 12 Month Survivor	23	29,467.39	6	5,074.73	29	34,542.12
PLSO 24 Month Survivor	22	29,569.11	9	10,866.16	31	40,435.27
PLSO 36 Month Survivor	50	49,104.59	15	18,418.77	65	67,523.36
Total	2,048	\$ 2,772,486.43	728	\$ 815,585.90	2,776	\$ 3,588,072.33



Non-Hazardous Beneficiary Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	9	\$ 5,012.19	17	\$ 19,057.68	26	\$ 24,069.87
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	252	270,966.04	1,538	1,486,188.33	1,790	1,757,154.37
66-2/3% to Beneficiary	35	39,266.45	302	275,776.93	337	315,043.38
50% to Beneficiary	100	65,286.39	461	282,957.52	561	348,243.91
Pop-up Option	95	133,541.81	416	564,670.11	511	698,211.92
10 Years Certain	66	82,208.60	77	78,156.31	143	160,364.91
10 Years Certain & Life	27	32,590.21	33	52,234.34	60	84,824.55
Social Security Option						
Age 62 Basic	1	268.12	8	15,164.86	9	15,432.98
Age 62 Survivorship	48	78,782.00	227	390,649.74	275	469,431.74
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	7	3,171.08	7	3,171.08
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	5	3,269.00	8	9,010.22	13	12,279.22
15 Years Certain & Life	23	34,093.26	57	89,592.04	80	123,685.30
20 Years Certain & Life	30	36,537.00	73	114,970.52	103	151,507.52
5 Years Certain	49	55,210.41	44	44,333.53	93	99,543.94
PLSO 12 Month Basic	0	0.00	1	1,765.12	1	1,765.12
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	0	0.00	2	3,307.78	2	3,307.78
PLSO 12 Month Survivor	3	3,286.21	7	7,795.82	10	11,082.03
PLSO 24 Month Survivor	6	7,054.26	13	10,021.96	19	17,076.22
PLSO 36 Month Survivor	13	11,773.65	38	38,751.04	51	50,524.69
Total	762	\$ 859,145.60	3,329	\$ 3,487,574.93	4,091	\$ 4,346,720.53



Hazardous Beneficiary Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	2	\$ 1,036.37	4	\$ 1,796.00	6	\$ 2,832.37
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	8	3,108.56	109	80,559.43	117	83,667.99
66-2/3% to Beneficiary	0	0.00	13	6,071.61	13	6,071.61
50% to Beneficiary	1	452.06	19	7,141.52	20	7,593.58
Pop-up Option	10	6,181.25	44	25,709.85	54	31,891.10
10 Years Certain	3	4,536.47	14	16,954.20	17	21,490.67
10 Years Certain & Life	1	1,136.98	3	1,761.98	4	2,898.96
Social Security Option						
Age 62 Basic	0	0.00	0	0.00	0	0.00
Age 62 Survivorship	1	386.56	20	32,546.79	21	32,933.35
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	258.67	3	2,120.01	4	2,378.68
15 Years Certain & Life	2	850.63	2	830.85	4	1,681.48
20 Years Certain & Life	0	0.00	6	2,294.48	6	2,294.48
5 Years Certain	5	1,902.02	4	5,035.65	9	6,937.67
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	2	368.70	2	368.70
PLSO 12 Month Survivor	0	0.00	1	1,040.38	1	1,040.38
PLSO 24 Month Survivor	0	0.00	1	778.27	1	778.27
PLSO 36 Month Survivor	2	695.84	7	7,141.66	9	7,837.50
Total	36	\$ 20,545.41	252	\$ 192,151.38	288	\$ 212,696.79



**Non-Hazardous Members
Retired and Beneficiary Information June 30, 2011
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	79	\$ 1,833,529	37	\$ 372,583	96	\$ 819,423	212	\$ 3,025,536
45-49	627	\$ 16,736,135	92	\$ 1,376,449	64	\$ 1,140,499	783	\$ 19,253,083
50-54	2,494	\$ 79,961,618	172	\$ 2,218,017	118	\$ 1,621,941	2,784	\$ 83,801,576
55-59	4,958	\$ 151,504,659	292	\$ 4,557,342	237	\$ 3,958,183	5,487	\$ 160,020,184
60-64	6,951	\$ 188,054,798	362	\$ 4,821,282	315	\$ 6,192,537	7,628	\$ 199,068,617
65-69	6,084	\$ 130,398,054	314	\$ 3,655,876	387	\$ 6,731,229	6,785	\$ 140,785,159
70-74	4,309	\$ 78,256,320	281	\$ 3,352,433	449	\$ 6,345,917	5,039	\$ 87,954,670
75-79	3,022	\$ 46,161,266	155	\$ 1,728,870	517	\$ 7,480,125	3,694	\$ 55,370,261
80-84	2,212	\$ 31,544,425	68	\$ 717,037	505	\$ 7,006,359	2,785	\$ 39,267,822
85-89	1,319	\$ 15,607,914	30	\$ 267,287	567	\$ 5,565,143	1,916	\$ 21,440,343
90 & Over	638	\$ 5,849,916	10	\$ 60,823	836	\$ 5,299,290	1,484	\$ 11,210,029
Totals	32,693	\$ 745,908,634	1,813	\$ 23,127,998	4,091	\$ 52,160,646	38,597	\$ 821,197,278



Hazardous Members
Retired and Beneficiary Information June 30, 2011
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	39	\$ 895,001	7	\$ 60,247	24	\$ 157,784	70	\$ 1,113,032
45-49	169	\$ 3,559,672	15	\$ 125,318	6	\$ 87,833	190	\$ 3,772,823
50-54	277	\$ 5,881,940	15	\$ 151,359	19	\$ 210,549	311	\$ 6,243,847
55-59	482	\$ 9,079,870	26	\$ 254,952	31	\$ 298,228	539	\$ 9,633,049
60-64	713	\$ 11,819,920	32	\$ 265,435	39	\$ 363,399	784	\$ 12,448,754
65-69	498	\$ 6,296,545	12	\$ 73,342	42	\$ 378,333	552	\$ 6,748,220
70-74	253	\$ 2,778,790	7	\$ 20,893	35	\$ 349,519	295	\$ 3,149,202
75-79	148	\$ 1,119,373	8	\$ 30,599	41	\$ 296,789	197	\$ 1,446,761
80-84	60	\$ 400,614	2	\$ 6,492	28	\$ 196,726	90	\$ 603,832
85-89	11	\$ 192,595			14	\$ 77,610	25	\$ 270,205
90 & Over	2	\$ 43,912			9	\$ 135,591	11	\$ 179,503
Totals	2,652	\$ 42,068,231	124	\$ 988,637	288	\$ 2,552,361	3,064	\$ 45,609,229



**Total Non-Hazardous Active Members as of June 30, 2011
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	16								16
Avg Pay	\$14,393								\$14,393
20-24	1,199	95							1,294
Avg Pay	\$24,147	\$31,998							\$24,723
25-29	3,353	804	28						4,185
Avg Pay	\$27,718	\$31,700	\$32,317						\$28,514
30-34	2,683	2,084	726	19					5,512
Avg Pay	\$30,319	\$35,398	\$36,066	\$39,947					\$33,029
35-39	3,309	1,731	1,668	403	32				7,143
Avg Pay	\$29,101	\$37,468	\$40,153	\$42,784	\$47,339				\$34,563
40-44	1,844	1,401	1,520	1,060	595	75			6,495
Avg Pay	\$32,170	\$38,744	\$40,646	\$45,244	\$45,919	\$53,458			\$39,211
44-49	1,568	1,366	1,229	841	958	340	237	40	6,579
Avg Pay	\$31,746	\$37,523	\$42,125	\$45,425	\$48,098	\$50,973	\$55,219	\$54,734	\$40,993
50-54	1,412	1,270	1,244	760	836	333	160	92	6,107
Avg Pay	\$32,582	\$37,304	\$39,675	\$43,993	\$46,801	\$50,350	\$52,830	\$61,416	\$40,309
55-59	1,056	1,037	1,079	690	643	224	138	111	4,978
Avg Pay	\$34,269	\$36,159	\$39,615	\$42,071	\$46,625	\$50,840	\$54,370	\$65,271	\$40,493
60-64	572	718	692	482	402	175	67	65	3,173
Avg Pay	\$36,297	\$38,104	\$40,162	\$44,981	\$44,974	\$45,101	\$51,080	\$57,977	\$41,209
65-69	125	209	209	120	104	28	20	12	827
Avg Pay	\$41,936	\$36,720	\$42,569	\$45,732	\$46,386	\$49,729	\$66,082	\$78,290	\$43,264
70 & over	53	53	76	59	45	7	2	13	308
Avg Pay	\$38,630	\$34,381	\$33,773	\$40,937	\$47,934	\$52,539	\$33,138	\$80,757	\$40,560
Totals	17,190	10,768	8,471	4,434	3,615	1,182	624	333	46,617
Avg Pay	\$30,198	\$36,629	\$40,016	\$44,251	\$46,772	\$50,040	\$54,252	\$62,590	\$37,146



**Total Hazardous Active Members as of June 30, 2011
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 Avg Pay									
20-24 Avg Pay	155 \$23,388	5 \$25,668							160 \$23,459
25-29 Avg Pay	429 \$26,018	77 \$28,920							506 \$26,460
30-34 Avg Pay	333 \$26,749	223 \$30,495	41 \$32,239						597 \$28,526
35-39 Avg Pay	433 \$23,625	193 \$32,474	148 \$36,635	27 \$37,757					801 \$28,637
40-44 Avg Pay	203 \$27,584	174 \$32,663	131 \$36,739	100 \$40,306	21 \$45,783				629 \$33,526
44-49 Avg Pay	170 \$26,268	138 \$32,025	103 \$37,581	71 \$40,084	40 \$44,233	1 \$43,476			523 \$33,297
50-54 Avg Pay	123 \$27,657	117 \$32,847	97 \$37,215	54 \$41,549	51 \$48,484	1 \$66,816		1 \$63,936	444 \$35,364
55-59 Avg Pay	106 \$27,148	96 \$30,283	76 \$37,408	46 \$41,153	25 \$41,813	1 \$43,668	1 \$56,808		351 \$33,238
60-64 Avg Pay	48 \$32,072	80 \$32,119	54 \$39,671	26 \$39,157	17 \$46,172	2 \$58,746		1 \$71,064	228 \$36,153
65-69 Avg Pay	7 \$30,706	18 \$31,399	8 \$39,405	6 \$53,966	2 \$41,184				41 \$36,623
70 & over Avg Pay	4 \$23,505	1 \$4,944	4 \$37,419	1 \$29,868	1 \$49,992				11 \$29,864
Totals	2,011	1,122	662	331	157	5	1	2	4,291
Avg Pay	\$25,916	\$31,565	\$36,990	\$40,497	\$45,644	\$54,290	\$56,808	\$67,500	\$31,008



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

Prepared as of June 30, 2011





Cavanaugh Macdonald

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The experience and dedication you deserve

October 31, 2011

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, 2012. The date of the valuation was June 30, 2011.

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 undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

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

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

TJC:kc

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

PREPARED AS OF JUNE 30, 2011

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2011, 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

	CERS Non-Hazardous		CERS Hazardous		CERS Totals	
	6/30/2011	6/30/2010	6/30/2011	6/30/2010	6/30/2011	6/30/2010
Contributions for next fiscal year:						
Retirement	12.62%	11.70%	20.10%	17.91%		
Insurance	<u>8.59</u>	<u>9.59</u>	<u>21.84</u>	<u>23.74</u>	N/A	N/A
Total	21.21%	21.29%	41.94%	41.65%		
Funded status as of valuation date:						
Retirement						
Actuarial accrued liability	\$8,918,085,025	\$8,459,022,280	\$2,859,041,052	\$2,672,151,907	\$11,777,126,077	\$11,131,174,187
Actuarial value of assets	\$5,629,611,183	\$5,546,857,291	\$1,779,545,393	\$1,749,464,388	\$7,409,156,576	\$7,296,321,679
Unfunded liability on actuarial value of assets	\$3,288,473,842	\$2,912,164,989	\$1,079,495,659	\$922,687,519	\$4,367,969,501	\$3,834,852,508
Funded ratio on actuarial value of assets	63.13%	65.57%	62.24%	65.47%	62.91%	65.55%
Market value of assets	\$5,577,252,295	\$4,819,933,717	\$1,760,602,934	\$1,506,787,429	\$7,337,855,229	\$6,326,721,146
Unfunded liability on market value of assets	\$3,340,832,730	\$3,639,088,563	\$1,098,438,118	\$1,165,364,478	\$4,439,270,848	\$4,804,453,041
Funded ratio on market value of assets	62.54%	56.98%	61.58%	56.39%	62.31%	56.84%
Insurance						
Actuarial accrued liability	\$3,073,973,205	\$3,158,340,174	\$1,647,702,755	\$1,674,703,216	\$4,721,675,960	\$4,833,043,390
Actuarial value of assets	\$1,433,450,793	\$1,293,038,593	\$770,790,274	\$692,769,770	\$2,204,241,067	\$1,985,808,363
Unfunded liability on actuarial value of assets	\$1,640,522,412	\$1,865,301,581	\$876,912,481	\$981,933,446	\$2,517,434,893	\$2,847,235,027
Funded ratio on actuarial value of assets	46.63%	40.94%	46.78%	41.37%	46.68%	41.09%
Market value of assets	\$1,451,984,026	\$1,096,581,872	\$774,509,101	\$586,826,965	\$2,226,493,127	\$1,683,408,837
Unfunded liability on market value of assets	\$1,621,989,179	\$2,061,758,302	\$873,193,654	\$1,087,876,251	\$2,495,182,833	\$3,149,634,553
Funded ratio on market value of assets	47.23%	34.72%	47.01%	35.04%	47.15%	34.83%
Demographic data as of valuation date:						
Number of retired participants and beneficiaries	43,211	41,038	6,468	6,068	49,679	47,106
Number of vested former members	9,902	9,430	580	545	10,482	9,975
Number of former members due a refund	56,012	54,574	2,194	2,086	58,206	56,660
Number of active members	85,285	84,681	9,407	9,562	94,692	94,243
Total salary	\$2,276,595,948	\$2,236,855,380	\$466,963,860	\$466,548,660	\$2,743,559,808	\$2,703,404,040
Average salary	\$26,694	\$26,415	\$49,640	\$48,792	\$28,974	\$28,685



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. However, plan designs have changed for the Health Insurance plans that cover Medicare eligible retirees and non-Medicare eligible retirees. The changes are summarized below.
 - The annual deductible and out-of-pocket maximum have been increased for Plan Year 2012 under the KRS Health Plan Medical Only, from the standard Part B deductible to \$500.
 - The prescription drug coverage under the KRS Health Plan Essential for Plan Years 2011 and 2012 have been altered to reflect the same coverage as described in the Standard Medicare Part D benefit parameters.
 - The annual deductible, out-of-pocket maximum and prescription drug co-payments have increased under the KRS Health Plan Premium for Plan Year 2011.
 - Plan design changes have also been implemented for Plan Year 2012 for the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky.
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, 2011 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	85,285	\$2,276,595,948	\$26,694	46.8	9.0
Hazardous	9,407	466,963,860	49,640	39.1	9.5
Total in CERS	94,692	\$2,743,559,808	\$28,974	46.0	9.0

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
6/30/2006	83,694	\$1,982,437,473	\$23,687	2.1%
6/30/2007	84,920	2,076,848,328	24,457	3.3
6/30/2008	85,221	2,166,612,648	25,423	3.9
6/30/2009	83,724	2,183,611,848	26,081	2.6
6/30/2010	84,681	2,236,855,380	26,415	1.3
6/30/2011	85,285	2,276,595,948	26,694	1.1

SCHEDULE OF HAZARDOUS CERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2006	9,635	\$426,927,550	\$44,310	2.0%
6/30/2007	10,063	458,998,956	45,613	2.9
6/30/2008	10,173	474,241,332	46,618	2.2
6/30/2009	9,757	469,315,464	48,100	3.2
6/30/2010	9,562	466,548,660	48,792	1.4
6/30/2011	9,407	466,963,860	49,640	1.7



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	36,109	\$415,638,650	\$11,511	68.8
Disability	3,167	34,959,669	11,039	64.0
Beneficiary	3,935	32,995,749	8,385	67.2
Total in CERS	43,211	\$483,594,068	\$11,191	68.3

* Does not include annual benefits for those members included in the Hazardous System who are also receiving a portion of their benefit from the Non Hazardous System

Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retiree	5,346	\$143,857,251	\$26,909	60.1
Disability	429	6,767,929	15,776	54.1
Beneficiary	693	9,634,215	13,902	53.5
Total in CERS	6,468	\$160,259,395	\$24,777	59.0

This valuation also includes 68,688 inactive members (65,914 Non-Hazardous and 2,774 Hazardous; of which 9,902 Non-Hazardous are vested and 580 Hazardous are vested).



SECTION III – ASSETS

- As of June 30, 2011 the total market value of assets amounted to \$9,564,348,356 as shown in the following table. The Insurance assets include both the amount in the health care trust and the amount in the 401(h) account in the pension trust established to meet the requirements of HB1.

**MARKET VALUE OF ASSETS BY FUND
AS OF JUNE 30, 2011**

Member Group	Retirement	Insurance	CERS Total
Non-Hazardous	\$5,577,252,295	\$1,451,984,026	\$7,029,236,321
Hazardous	<u>1,760,602,934</u>	<u>774,509,101</u>	<u>2,535,112,035</u>
Total	\$7,337,855,229	\$2,226,493,127	\$9,564,348,356

- The five-year smoothed market related actuarial value of assets used for the current valuation was \$9,613,397,643. Schedule B shows the development of the actuarial value of assets as of June 30, 2011. The following table shows the actuarial value of assets allocated among member groups.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	JUNE 30, 2011	JUNE 30, 2010
Retirement		
Non-Hazardous	\$ 5,629,611,183	\$ 5,546,857,291
Hazardous	<u>1,779,545,393</u>	<u>1,749,464,388</u>
Total	\$ 7,409,156,576	\$ 7,296,321,679
Insurance		
Non-Hazardous	\$ 1,433,450,793	\$ 1,293,038,593
Hazardous	<u>770,790,274</u>	<u>692,769,770</u>
Total	\$ 2,204,241,067	\$ 1,985,808,363
CERS Total		
Non-Hazardous	\$ 7,063,061,976	\$ 6,839,895,884
Hazardous	<u>2,550,335,667</u>	<u>2,442,234,158</u>
Total	\$ 9,613,397,643	\$ 9,282,130,042



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, 2011. 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 \$14,041,344,597, of which \$6,602,002,250 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$376,293,219 is for the prospective benefits payable on account of inactive members and \$7,063,049,128 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 \$7,409,156,576 as of June 30, 2011. The difference of \$6,632,188,021 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, \$1,275,868,432 is the present value of future contributions expected to be made by members, and the balance of \$5,356,319,589 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 4.00% of payroll for non-hazardous members and 7.12% of payroll for hazardous members are required to fund the continuing benefit accruals for the average active member of CERS.
3. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$988,350,088. When this amount is subtracted from \$5,356,319,589, which is the present value of the total future contributions to be made by the employers, there remains \$4,367,969,501 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 7.94% 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 12.70% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$3,288,473,842 for non-hazardous members and \$1,079,495,659 for hazardous members over 26 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 4.50% each year.



5. For non-hazardous members, the contribution rate for administrative expenses is determined to be 0.68% of payroll. For hazardous members, the contribution rate for administrative expenses is determined to be 0.28% 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 \$5,970,242,133, of which \$1,980,403,714 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$252,035,828 is for the prospective benefits payable on account of inactive members and \$3,737,802,591 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 \$2,204,241,067 as of June 30, 2011. The difference of \$3,766,001,066 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, \$37,297,885 is the present value of future contributions expected to be made by members, and the balance of \$3,728,703,181 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 4.42% of payroll for non-hazardous members and 11.40% of payroll for hazardous members are required to fund the continuing benefit accruals for the average active member of CERS.
3. Prospective employer normal contributions on account of insurance benefits at the above rates have a present value of \$1,211,268,288. When this amount is subtracted from \$3,728,703,181, which is the present value of the total future contributions to be made by the employers, there remains \$2,517,434,893 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 3.96% 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 10.32% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of \$1,640,522,412 for non-hazardous members and \$876,912,481 for hazardous members over 26 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.21% of payroll for non-hazardous employees and 0.12% 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, 2011 is shown below (\$ millions).

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

		Non-Hazardous Group		Hazardous Group		Total
(1)	UAAL* as of 6/30/10	\$ 2,912.2		\$ 922.7		\$ 3,834.9
(2)	Normal cost from last valuation	105.6		34.1		139.7
(3)	Employer contributions	248.5		85.1		333.6
(4)	Interest accrual: [(1) + (2)] x .0775 - (3) x .03875	224.3		70.9		295.2
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 2,993.6		\$ 942.6		\$ 3,936.2
(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)	\$ 2,993.6		\$ 942.6		\$ 3,936.2
(9)	Actual UAAL as of 6/30/11	\$ 3,288.5		\$ 1,079.5		\$ 4,368.0
(10)	Gain/(loss): (8) - (9)	\$ (294.9)		\$ (136.9)		\$ (431.8)
(11)	Accrued liabilities as of 6/30/10	\$ 8,459.0		\$ 2,672.2		\$ 11,131.2
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	(3.5)%		(5.1)%		(3.9)%

*Unfunded actuarial accrued liability.



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

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/10	\$ 1,865.3	\$ 981.9	\$ 2,847.2
(2)	Normal cost from last valuation	110.0	57.6	167.6
(3)	Expected employer contributions	<u>210.0</u>	<u>110.2</u>	<u>320.2</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .0775	136.8	72.0	208.8
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 1,902.1	\$ 1,001.3	\$ 2,903.4
(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
(9)	Expected UAAL after changes: (5) + (6) + (7)	\$ 1,902.1	\$ 1,001.3	\$ 2,903.4
(10)	Actual UAAL as of 6/30/11	\$ 1,640.5	\$ 876.9	\$ 2,517.4
(11)	Gain/(loss): (8) - (9)	\$ 261.6	\$ 124.4	\$ 386.0
(12)	Accrued liabilities as of 6/30/10	\$ 3,158.3	\$ 1,674.7	\$ 4,833.0
(13)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	8.3 %	7.4 %	8.0 %

* *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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (144.9)	\$ (12.1)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(23.1)	4.4
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(1.4)	(2.6)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	52.5	18.0
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.	74.6	243.0
New Members. Additional unfunded accrued liability will produce a loss.	(12.5)	(8.3)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(230.0)	(28.6)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	19.9	33.5
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(30.0)</u>	<u>14.3</u>
Gain (or Loss) During Year From Financial Experience	\$ (294.9)	\$ 261.6
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (294.9)	\$ 261.6



**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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (72.2)	\$ (41.2)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(2.3)	(0.1)
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.1	(0.6)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	30.4	18.3
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.	17.6	130.5
New Members. Additional unfunded accrued liability will produce a loss.	(3.9)	(4.2)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(73.1)	(18.0)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	1.9	27.0
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(35.4)</u>	<u>12.7</u>
Gain (or Loss) During Year From Financial Experience	\$ (136.9)	\$ 124.4
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (136.9)	\$ 124.4



**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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (217.1)	\$ (53.3)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(25.4)	4.3
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(1.3)	(3.2)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	82.9	36.3
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.	92.2	373.5
New Members. Additional unfunded accrued liability will produce a loss.	(16.4)	(12.5)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(303.1)	(46.6)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	21.8	60.5
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(65.4)</u>	<u>27.0</u>
Gain (or Loss) During Year From Financial Experience	\$ (431.8)	\$ 386.0
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (431.8)	\$ 386.0



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 2012/2013 fiscal year.

Required Contribution Rates Non-Hazardous Retirement

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 186,431,877	7.94%
(2) Disability benefits	15,202,054	0.65
(3) Survivor benefits	3,260,611	0.13
(4) Total	\$ 204,894,542	9.00%
B. Member Contributions	\$ 113,829,797	5.00%
C. Employer Normal Cost: [A(4) - B]	\$ 91,064,745	4.00%
D. Administrative Expenses	\$ 15,480,852	0.68%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/10 Valuation:	\$ 158,906,397	6.98%
(2) Change due to:		
a. Active decrements	\$ 5,701,354	0.25%
b. Pay increases	(4,099,113)	(0.18)
c. Retiree mortality	(1,053,178)	(0.05)
d. Investment return	11,746,405	0.52
e. COLA	3,382,550	0.15
f. Assumption Change	0	0.00
g. Other	6,085,687	0.27
h. Total Change	\$ 21,763,705	0.96%
(3) UAAL Contribution Based on 6/30/11 Valuation: [E(1) +E(2)h]	\$ 180,670,102	7.94%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 287,215,699	12.62%

* Based on 27 year amortization of the UAAL from June 30, 2010 and 26 years from June 30, 2011



**Required Contribution Rates
Hazardous Retirement**

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 66,149,845	13.95%
(2) Disability benefits	3,516,023	0.75
(3) Survivor benefits	955,981	0.21
(4) Total	<u>\$ 70,621,849</u>	<u>15.12%</u>
B. Member Contributions	\$ 37,357,109	8.00%
C. Employer Normal Cost: [A(4) - B]	\$ 33,264,740	7.12%
D. Administrative Expenses	\$ 1,307,499	0.28%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/10 Valuation:	\$ 49,498,169	10.60%
(2) Change due to:		
a. Active decrements	\$ 2,418,619	0.52%
b. Pay increases	(967,982)	(0.21)
c. Retiree mortality	(103,198)	(0.02)
d. Investment return	3,943,357	0.84
e. COLA	1,311,041	0.28
f. Assumption Change	0	0.00
g. Other	3,207,928	0.67
h. Total Change	<u>\$ 9,809,765</u>	<u>2.10%</u>
(3) UAAL Contribution Based on 6/30/11 Valuation: [E(1) +E(2)h]	\$ 59,307,934	12.70%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	<u>\$ 93,880,173</u>	<u>20.10%</u>

* Based on 27 year amortization of the UAAL from June 30, 2010 and 26 years from June 30, 2011



**Required Contribution Rates
Non-Hazardous Insurance**

Contribution for	Amount	% of Payroll
A. Normal Cost:	\$ 103,854,606	4.56%
B. Member Contributions*	\$ 3,187,234	0.14%
C. Employer Normal Cost: [A - B]	\$ 100,667,372	4.42%
D. Administrative Expenses	\$ 4,762,524	0.21%
E. Unfunded Actuarial Accrued Liability**:	\$ 90,130,974	3.96%
F. Total Recommended Employer Contribution Rate: [C+D+E]	\$ 195,560,870	8.59%

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

*** Based on 26 year amortization of the UAAL from June 30, 2011*

**Required Contribution Rates
Hazardous Insurance**

Contribution for	Amount	% of Payroll
A. Normal Cost:	\$ 53,672,815	11.49%
B. Member Contributions*	\$ 420,267	0.09%
C. Employer Normal Cost: [A - B]	\$ 53,252,548	11.40%
D. Administrative Expenses	\$ 580,193	0.12%
E. Unfunded Actuarial Accrued Liability**:	\$ 48,177,931	10.32%
F. Total Recommended Employer Contribution Rate: [C+D+E]	\$ 102,010,672	21.84%

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

*** Based on 26 year amortization of the UAAL from June 30, 2011*



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, 2011

GROUP	NUMBER		
	Non-Hazardous	Hazardous	Total
Retirees and beneficiaries currently receiving benefits	43,211	6,468	49,679
Terminated employees entitled to benefits but not yet receiving benefits	65,914	2,774	68,688
Active Members	<u>85,285</u>	<u>9,407</u>	<u>94,692</u>
Total	194,410	18,649	213,059

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						
6/30/2006	\$ 5,162,894,136	\$ 6,179,569,267	\$ 1,016,675,131	83.6%	\$ 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
6/30/2008	5,731,502,438	7,304,217,691	1,572,715,253	78.5	2,166,612,648	72.6
6/30/2009	5,650,789,991	7,912,913,512	2,262,123,521	71.4	2,183,611,848	103.6
6/30/2010	5,546,857,291	8,459,022,280	2,912,164,989	65.6	2,236,855,380	130.2
6/30/2011	5,629,611,183	8,918,085,025	3,288,473,842	63.1	2,276,595,948	144.4
Hazardous Members						
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
6/30/2008	1,750,867,373	2,403,122,095	652,254,722	72.9	474,241,332	137.5
6/30/2009	1,751,487,540	2,578,444,600	826,957,060	67.9	469,315,464	176.2
6/30/2010	1,749,464,388	2,672,151,907	922,687,519	65.5	466,548,660	197.8
6/30/2011	1,779,545,393	2,859,041,052	1,079,495,659	62.2	466,963,860	231.2
Total CERS Members						
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
6/30/2008	7,482,369,811	9,707,339,786	2,224,969,975	77.1	2,640,853,980	84.3
6/30/2009	7,402,277,531	10,491,358,112	3,089,080,581	70.6	2,652,927,312	116.4
6/30/2010	7,296,321,679	11,131,174,187	3,834,852,508	65.5	2,703,404,040	141.9
6/30/2011	7,409,156,576	11,777,126,077	4,367,969,501	62.9	2,743,559,808	159.2



**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						
6/30/2006	\$ 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
6/30/2008	1,168,883,170	3,583,193,466	2,414,310,296	32.6	2,166,612,648	111.4
6/30/2009	1,216,631,769	3,070,386,018	1,853,754,249	39.6	2,183,611,848	84.9
6/30/2010	1,293,038,593	3,158,340,174	1,865,301,581	40.9	2,236,855,380	83.4
6/30/2011	1,433,450,793	3,073,973,205	1,640,522,412	46.6	2,276,595,948	72.1
Hazardous Members						
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
6/30/2008	613,526,319	1,769,782,957	1,156,256,638	34.7	474,241,332	243.8
6/30/2009	651,130,782	1,593,548,263	942,417,481	40.9	469,315,464	200.8
6/30/2010	692,769,770	1,674,703,216	981,933,446	41.4	466,548,660	210.5
6/30/2011	770,790,274	1,647,702,755	876,912,481	46.8	466,963,860	187.8
Total CERS Members						
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
6/30/2008	1,782,409,489	5,352,976,423	3,570,566,934	33.3	2,640,853,980	135.2
6/30/2009	1,867,762,551	4,663,934,281	2,796,171,730	40.0	2,652,927,312	105.4
6/30/2010	1,985,808,363	4,833,043,390	2,847,235,027	41.1	2,703,404,040	105.3
6/30/2011	2,204,241,067	4,721,675,960	2,517,434,893	46.7	2,743,559,808	91.8



**RETIREMENT BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Annual Required Contribution	Actual Contributions	Percentage Contributed
Non-Hazardous Members			
June 30, 2006	\$ 83,123,669	\$ 90,834,052	109.3%
June 30, 2007	112,508,305	124,260,850	110.4
June 30, 2008	138,311,398	150,925,334	109.1
June 30, 2009	161,097,151	179,284,551	111.3
June 30, 2010	186,724,383	207,075,842	110.9
June 30, 2011	218,984,628	248,518,574	113.5
Hazardous Members			
June 30, 2006	\$ 44,059,404	\$ 49,976,485	113.4%
June 30, 2007	53,889,838	61,553,118	114.2
June 30, 2008	64,082,063	72,154,734	112.6
June 30, 2009	69,056,365	78,151,677	113.2
June 30, 2010	76,390,669	82,887,128	108.5
June 30, 2011	78,795,602	85,078,181	108.0
Total CERS Members			
June 30, 2006	\$ 127,183,073	\$ 140,810,537	110.7%
June 30, 2007	166,398,143	185,813,968	111.7
June 30, 2008	202,393,461	223,080,068	110.2
June 30, 2009	230,153,516	257,436,228	111.9
June 30, 2010	263,115,052	289,962,970	110.2
June 30, 2011	297,780,230	333,596,755	112.0



**INSURANCE BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Annual Required Contribution	Retiree Drug Subsidy (RDS) Contribution	Employer Contributions	Total Contributions	Percentage Contributed
Non-Hazardous Members					
June 30, 2006	\$ 272,942,757	\$ 0	\$ 128,867,817	\$ 128,867,817	47.2%
June 30, 2007	285,600,490	9,623,431	147,608,801	157,232,232	55.1
June 30, 2008	406,541,729	6,003,181	196,110,111	202,113,292	49.7
June 30, 2009	264,733,532	7,623,628	123,852,611	131,476,239	49.7
June 30, 2010	266,331,326	9,156,991	166,607,097	175,764,088	66.0
June 30, 2011	213,429,424	0	186,885,576	186,885,576	87.6
Hazardous Members					
June 30, 2006	\$ 98,297,535	\$ 0	\$ 64,853,778	\$ 64,853,778	66.0%
June 30, 2007	115,938,899	656,523	70,072,785	70,729,308	61.0
June 30, 2008	168,723,639	419,774	90,113,200	90,532,974	53.7
June 30, 2009	126,757,348	627,938	70,785,241	71,413,179	56.3
June 30, 2010	129,227,449	1,493,440	83,042,875	84,536,315	65.4
June 30, 2011	109,226,667	0	98,592,286	98,592,286	90.3
Total CERS Members					
June 30, 2006	\$ 371,240,292	\$ 0	\$ 193,721,595	\$ 193,721,595	52.2%
June 30, 2007	401,539,389	10,279,954	217,681,586	227,961,540	56.8
June 30, 2008	575,265,368	6,422,955	286,223,311	292,646,266	50.9
June 30, 2009	391,490,880	8,251,566	194,637,852	202,889,418	51.8
June 30, 2010	395,558,775	10,650,431	249,649,972	260,300,403	65.8
June 30, 2011	322,656,091	0	285,477,862	285,477,862	88.5



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

Retirement Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2011	6/30/2011
Actuarial cost method	Entry Age	Entry Age
Amortization	Level percent Closed	Level percent Closed
Remaining amortization period	26 years	26 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**	4.75% - 13.0%	4.5% - 20.0%
Cost-of-living adjustment	None	None
*Includes price inflation at	3.50%	3.50%
**Includes wage inflation at	4.50%	4.50%

Insurance Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2011	6/30/2011
Actuarial cost method	Entry Age	Entry Age
Amortization	Level percent Closed	Level percent Closed
Remaining amortization period	26 years	26 years
Asset valuation method	5 year smoothed Market	5 year smoothed Market
Medical Trend Assumption (Pre-Medicare)	10.5% - 5.0%	10.5% - 5.0%
Medical Trend Assumption (Post-Medicare)	8.5% - 5.0%	8.5% - 5.0%
Year Ultimate Trend	2019	2019
Actuarial assumptions:		
Investment rate of return*	7.75%	7.75%
*Includes price 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, 2011 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2010. 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, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 5,629,611,183	\$ 5,546,857,291
Prospective contributions		
Member contributions	\$ 952,686,879	\$ 938,666,730
Employer normal contributions	709,345,099	723,714,570
Unfunded accrued liability contributions	<u>3,288,473,842</u>	<u>2,912,164,989</u>
Total prospective contributions	<u>\$ 4,950,505,820</u>	<u>\$ 4,574,546,289</u>
Total assets	<u>\$ 10,580,117,003</u>	<u>\$ 10,121,403,580</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 4,864,821,271	\$ 4,568,443,463
Present value of benefits payable on account of active members	5,370,333,079	5,230,744,503
Present value of benefits payable on account of inactive members	<u>344,962,653</u>	<u>322,215,614</u>
Total liabilities	<u>\$ 10,580,117,003</u>	<u>\$ 10,121,403,580</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 1,779,545,393	\$ 1,749,464,388
Prospective contributions		
Member contributions	\$ 323,181,553	\$ 326,890,693
Employer normal contributions	279,004,989	283,491,550
Unfunded accrued liability contributions	<u>1,079,495,659</u>	<u>922,687,519</u>
Total prospective contributions	<u>\$ 1,681,682,201</u>	<u>\$ 1,533,069,762</u>
Total assets	<u>\$ 3,461,227,594</u>	<u>\$ 3,282,534,150</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 1,737,180,979	\$ 1,594,588,758
Present value of benefits payable on account of active members	1,692,716,049	1,659,849,695
Present value of benefits payable on account of inactive members	<u>31,330,566</u>	<u>28,095,697</u>
Total liabilities	<u>\$ 3,461,227,594</u>	<u>\$ 3,282,534,150</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 7,409,156,576	\$ 7,296,321,679
Prospective contributions		
Member contributions	\$ 1,275,868,432	\$ 1,265,557,423
Employer normal contributions	988,350,088	1,007,206,120
Unfunded accrued liability contributions	<u>4,367,969,501</u>	<u>3,834,852,508</u>
Total prospective contributions	<u>\$ 6,632,188,021</u>	<u>\$ 6,107,616,051</u>
Total assets	<u>\$ 14,041,344,597</u>	<u>\$ 13,403,937,730</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 6,602,002,250	\$ 6,163,032,221
Present value of benefits payable on account of active members	7,063,049,128	6,890,594,198
Present value of benefits payable on account of inactive members	<u>376,293,219</u>	<u>350,311,311</u>
Total liabilities	<u>\$ 14,041,344,597</u>	<u>\$ 13,403,937,730</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 1,433,450,793	\$ 1,293,038,593
Prospective contributions		
Member contributions	\$ 31,828,274	\$ 19,092,218
Employer normal contributions	801,135,367	891,691,710
Unfunded accrued liability contributions	<u>1,640,522,412</u>	<u>1,865,301,581</u>
Total prospective contributions	<u>\$ 2,473,486,053</u>	<u>\$ 2,776,085,509</u>
Total assets	<u>\$ 3,906,936,846</u>	<u>\$ 4,069,124,102</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 1,245,819,075	\$ 1,304,212,597
Present value of benefits payable on account of active members	2,446,128,591	2,542,590,730
Present value of benefits payable on account of inactive members	<u>214,989,180</u>	<u>222,320,775</u>
Total liabilities	<u>\$ 3,906,936,846</u>	<u>\$ 4,069,124,102</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 770,790,274	\$ 692,769,770
Prospective contributions		
Member contributions	\$ 5,469,611	\$ 3,310,313
Employer normal contributions	410,132,921	461,678,537
Unfunded accrued liability contributions	876,912,481	981,933,446
Total prospective contributions	<u>\$ 1,292,515,013</u>	<u>\$ 1,446,922,296</u>
Total assets	<u>\$ 2,063,305,287</u>	<u>\$ 2,139,692,066</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 734,584,639	\$ 785,948,226
Present value of benefits payable on account of active members	1,291,674,000	1,325,391,810
Present value of benefits payable on account of inactive members	37,046,648	28,352,030
Total liabilities	<u>\$ 2,063,305,287</u>	<u>\$ 2,139,692,066</u>



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

	June 30, 2011	June 30, 2010
ASSETS		
Current actuarial value of assets	\$ 2,204,241,067	\$ 1,985,808,363
Prospective contributions		
Member contributions	\$ 37,297,885	\$ 22,402,531
Employer normal contributions	1,211,268,288	1,353,370,247
Unfunded accrued liability contributions	<u>2,517,434,893</u>	<u>2,847,235,027</u>
Total prospective contributions	<u>\$ 3,766,001,066</u>	<u>\$ 4,223,007,805</u>
Total assets	<u>\$ 5,970,242,133</u>	<u>\$ 6,208,816,168</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 1,980,403,714	\$ 2,090,160,823
Present value of benefits payable on account of active members	3,737,802,591	3,867,982,540
Present value of benefits payable on account of inactive members	<u>252,035,828</u>	<u>250,672,805</u>
Total liabilities	<u>\$ 5,970,242,133</u>	<u>\$ 6,208,816,168</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)				
6/30/2006	\$ 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
6/30/2008	963,213,677	4,058,767,419	2,282,236,595	5,731,502,438	100.0	100.0	31.1
6/30/2009	991,628,551	4,542,483,102	2,378,801,859	5,650,789,991	100.0	100.0	4.9
6/30/2010	1,063,746,826	4,890,659,077	2,504,616,377	5,546,857,291	100.0	91.7	0.0
6/30/2011	1,110,967,160	5,209,783,924	2,597,333,941	5,629,611,183	100.0	86.7	0.0

**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)				
6/30/2006	\$ 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
6/30/2008	338,324,362	1,406,982,409	657,815,324	1,750,867,373	100.0	100.0	0.8
6/30/2009	350,308,879	1,540,262,587	687,873,134	1,751,487,540	100.0	91.0	0.0
6/30/2010	369,612,720	1,622,684,455	679,854,732	1,749,464,388	100.0	85.0	0.0
6/30/2011	382,072,055	1,768,511,545	708,457,452	1,779,545,393	100.0	79.0	0.0



**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)				
6/30/2006	\$ 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
6/30/2008	0	1,521,450,274	2,061,743,192	1,168,883,170	100.0	76.8	0.0
6/30/2009	0	1,478,782,753	1,591,603,265	1,216,631,769	100.0	82.3	0.0
6/30/2010	0	1,526,533,372	1,631,806,802	1,293,038,593	100.0	84.7	0.0
6/30/2011	0	1,460,808,255	1,613,164,950	1,433,450,793	100.0	98.1	0.0

**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)				
6/30/2006	\$ 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
6/30/2008	0	722,435,184	1,047,347,773	613,526,319	100.0	84.9	0.0
6/30/2009	0	725,899,836	867,648,427	651,130,782	100.0	89.7	0.0
6/30/2010	0	814,300,256	860,402,960	692,769,770	100.0	85.1	0.0
6/30/2011	0	771,631,287	876,071,468	770,790,274	100.0	99.9	0.0



SCHEDULE B

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

Valuation date June 30:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 5,650,789,991	\$ 5,546,857,291				
B. Market Value End of Year	4,819,933,717	5,577,252,295				
C. Market Value Beginning of Year	4,330,593,934	4,819,933,717				
D. Cash Flow						
D1. Contributions	313,633,777	393,379,256				
D2. Benefit Payments	(480,248,345)	(506,162,686)				
D3. Administrative Expenses	(14,323,240)	(15,567,869)				
D4. Investment Expenses	<u>(16,016,532)</u>	<u>(11,427,951)</u>				
D5. Net	(196,954,340)	(139,779,250)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	686,294,123	897,097,828				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	344,626,222	379,999,201				
E4. Amount for Phased-In Recognition	341,667,901	517,098,627				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	68,333,580	103,419,725	0	0	0	0
F2. First Prior Year	(268,260,750)	68,333,580	103,419,725	0	0	0
F3. Second Prior Year	(134,517,035)	(268,260,750)	68,333,580	103,419,725	0	0
F4. Third Prior Year	73,558,421	(134,517,035)	(268,260,750)	68,333,580	103,419,725	0
F5. Fourth Prior Year	<u>9,281,202</u>	<u>73,558,421</u>	<u>(134,517,035)</u>	<u>(268,260,750)</u>	<u>68,333,580</u>	<u>103,419,725</u>
F6. Total Recognized Investment Gain	(251,604,582)	(157,466,059)	(231,024,480)	(96,507,445)	171,753,305	103,419,725
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 5,546,857,291	\$ 5,629,611,183				
H. Difference Between Market & Actuarial Values	\$ (726,923,574)	\$ (52,358,888)	\$ 178,665,592	\$ 275,173,037	\$ 103,419,725	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 1,751,487,540	\$ 1,749,464,388				
B. Market Value End of Year	1,506,787,429	1,760,602,934				
C. Market Value Beginning of Year	1,320,522,868	1,506,787,429				
D. Cash Flow						
D1. Contributions	120,086,876	138,996,575				
D2. Benefit Payments	(138,766,191)	(170,193,302)				
D3. Administrative Expenses	(1,234,194)	(1,295,026)				
D4. Investment Expenses	<u>(4,216,663)</u>	<u>(14,514,425)</u>				
D5. Net	(24,130,172)	(47,006,178)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	210,394,733	300,821,683				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	105,785,537	130,031,395				
E4. Amount for Phased-In Recognition	104,609,196	170,790,288				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	20,921,839	34,158,058	0	0	0	0
F2. First Prior Year	(85,878,868)	20,921,839	34,158,058	0	0	0
F3. Second Prior Year	(46,582,469)	(85,878,868)	20,921,839	34,158,058	0	0
F4. Third Prior Year	24,437,228	(46,582,469)	(85,878,868)	20,921,839	34,158,058	0
F5. Fourth Prior Year	<u>3,423,753</u>	<u>24,437,228</u>	<u>(46,582,469)</u>	<u>(85,878,868)</u>	<u>20,921,839</u>	<u>34,158,058</u>
F6. Total Recognized Investment Gain	(83,678,517)	(52,944,212)	(77,381,440)	(30,798,971)	55,079,897	34,158,058
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 1,749,464,388	\$ 1,779,545,393				
H. Difference Between Market & Actuarial Values	\$ (242,676,959)	\$ (18,942,459)	\$ 58,438,981	\$ 89,237,952	\$ 34,158,058	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 1,216,631,769	\$ 1,293,038,593				
B. Market Value End of Year	1,096,581,872	1,451,984,026				
C. Market Value Beginning of Year	894,905,841	1,096,581,872				
D. Cash Flow						
D1. Contributions	192,750,255	217,610,265				
D2. Benefit Payments	(123,132,978)	(131,943,339)				
D3. Administrative Expenses	(4,469,067)	(4,762,524)				
D4. Investment Expenses	<u>(2,390,751)</u>	<u>(2,339,212)</u>				
D5. Net	62,757,459	78,565,190				
E. Investment Income						
E1. Market Total: B.-C.-D5.	138,918,572	276,836,964				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	74,270,447	90,459,353				
E4. Amount for Phased-In Recognition	64,648,125	186,377,611				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	12,929,625	37,275,522	0	0	0	0
F2. First Prior Year	(66,228,396)	12,929,625	37,275,522	0	0	0
F3. Second Prior Year	(36,900,933)	(66,228,396)	12,929,625	37,275,522	0	0
F4. Third Prior Year	24,311,839	(36,900,933)	(66,228,396)	12,929,625	37,275,522	0
F5. Fourth Prior Year	<u>5,266,783</u>	<u>24,311,839</u>	<u>(36,900,936)</u>	<u>(66,228,396)</u>	<u>12,929,625</u>	<u>37,275,522</u>
F6. Total Recognized Investment Gain	(60,621,082)	(28,612,343)	(52,924,185)	(16,023,249)	50,205,147	37,275,522
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 1,293,038,593	\$ 1,433,450,793				
H. Difference Between Market & Actuarial Values	\$ (196,456,721)	\$ 18,533,233	\$ 71,457,418	\$ 87,480,667	\$ 37,275,522	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 651,130,782	\$ 692,769,770				
B. Market Value End of Year	586,826,965	774,509,101				
C. Market Value Beginning of Year	483,269,862	586,826,965				
D. Cash Flow						
D1. Contributions	85,144,950	101,037,884				
D2. Benefit Payments	(48,320,681)	(51,829,795)				
D3. Administrative Expenses	(554,363)	(580,193)				
D4. Investment Expenses	<u>(1,089,127)</u>	<u>(2,324,660)</u>				
D5. Net	35,180,779	46,303,236				
E. Investment Income						
E1. Market Total: B.-C.-D5.	68,376,324	141,378,900				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	39,948,000	49,688,081				
E4. Amount for Phased-In Recognition	28,428,324	91,690,819				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	5,685,665	18,338,164	0	0	0	0
F2. First Prior Year	(33,861,562)	5,685,665	18,338,164	0	0	0
F3. Second Prior Year	(18,967,697)	(33,861,562)	5,685,665	18,338,164	0	0
F4. Third Prior Year	10,834,617	(18,967,697)	(33,861,562)	5,685,665	18,338,164	0
F5. Fourth Prior Year	<u>2,819,186</u>	<u>10,834,617</u>	<u>(18,967,697)</u>	<u>(33,861,562)</u>	<u>5,685,665</u>	<u>18,338,164</u>
F6. Total Recognized Investment Gain	(33,489,791)	(17,970,813)	(28,805,430)	(9,837,733)	24,023,829	18,338,164
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 692,769,770	\$ 770,790,274				
H. Difference Between Market & Actuarial Values	\$ (105,942,805)	\$ 3,718,827	\$ 32,524,257	\$ 42,361,990	\$ 18,338,164	\$ 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 based on the actuarial experience study prepared as of June 30, 2008, submitted August 14, 2009, and adopted by the Board on August 20, 2009.

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 4.50% per annum:

Service	Annual Rates of				
	Merit & Seniority		Base (Economy)	Increase Next Year	
	Non-Hazardous	Hazardous		Non-Hazardous	Hazardous
0-1	8.50%	15.50%	4.50%	13.00%	20.00%
1-2	5.00%	6.00%	4.50%	9.50%	10.50%
2-3	1.50%	2.00%	4.50%	6.00%	6.50%
3-4	1.50%	1.25%	4.50%	6.00%	5.75%
4-5	1.00%	1.00%	4.50%	5.50%	5.50%
5-6	1.00%	0.50%	4.50%	5.50%	5.00%
6-7	0.75%	0.00%	4.50%	5.25%	4.50%
7-8	0.75%	0.00%	4.50%	5.25%	4.50%
8-9	0.50%	0.00%	4.50%	5.00%	4.50%
9-10	0.50%	0.00%	4.50%	5.00%	4.50%
10 & Over	0.25%	0.00%	4.50%	4.75%	4.50%



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			Service Retirement**
		Male	Female	Disability	
20	5.75%	0.03%	0.01%	0.04%	
25	5.75	0.03	0.01	0.05	
30	5.30	0.04	0.02	0.06	
35	4.40	0.04	0.02	0.09	
40	3.70	0.05	0.04	0.13	
45	3.02	0.08	0.05	0.22	
50	2.70	0.13	0.07	0.37	
55	2.20	0.22	0.11	0.61	8.0%
60	0.75	0.40	0.22	0.97	10.0
65		0.73	0.43		22.0
70		1.19	0.69		22.0
75					100.0

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 25.0%, 14.0%, 10.0%, 8.0% and 6.5%, respectively.

** If service is at least 27 years, the rate is 30% for members participating before 9/1/2008. If age plus service is at least 87, the rate is 30% for members participating on or after 9/1/2008.

Hazardous Members

Age	Withdrawal and Vesting*	Death**			Service Retirement		
		Male	Female	Disability	Service	Rate ⁺	Rate ⁺⁺
20	3.00%	0.03%	0.01%	0.05%	20	20.0%	
25	2.70	0.03	0.01	0.07	25	33.0	20.0%
30	2.50	0.04	0.02	0.09	30	33.0	33.0
35	2.50	0.04	0.02	0.13	35	40.0	33.0
40	2.50	0.05	0.04	0.20	40		40.0
45	2.50	0.08	0.05	0.33			
50	2.50	0.13	0.07	0.56			
55		0.22	0.11	0.92			
60		0.40	0.22	1.46			

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 14.0%, 7.5%, 6.0%, 4.5% and 4.0%, respectively.

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

+ Applies to members participating before 9/1/2008. The annual rate of service retirement is 100% at age 62.

++ Applies to members participating on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.



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. There is some margin in the current mortality tables for possible future improvement in mortality rates and that margin will be reviewed again when the next experience investigation is conducted.

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. No implicit rate subsidy is calculated or recognized as the subsidy is the responsibility of KEHP. For the Medicare-eligible retirees, claims were analyzed and current premiums were utilized with appropriate aging factors applied.

ASSET VALUATION METHOD: 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.

HEALTH CARE BENEFITS VALUED: Medical and drug benefits for retirees under age 65 and Medicare eligible.

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

Fiscal Year Ended	Trend	
	Under Age 65	Age 65 and Over
2012	10.5%	8.5%
2013	9.5%	7.5%
2014	8.5%	7.0%
2015	7.5%	6.5%
2016	6.5%	6.0%
2017	6.0%	5.5%
2018	5.5%	5.0%
2019 and beyond	5.0%	5.0%

HEALTH CARE 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



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

Medical	Non-Hazardous	Hazardous
Participation	85%	100%

HEALTH CARE MONTHLY RATES: Following are charts detailing expected monthly rates for pre-Medicare eligible and post-Medicare eligible retirees for the year following the valuation date.

**MEDICAL INSURANCE RATES
PRE-MEDICARE ELIGIBLE**

Effective January 1, 2011				
	Single	Parent Plus	Couple	Family
Total Premiums				
Standard PPO	\$486.40	\$749.84	\$1,127.80	\$1,253.56
Optimum PPO	\$650.30	\$905.42	\$1,405.66	\$1,565.88
Capitol Choice	\$625.68	\$909.02	\$1,387.36	\$1,537.92

Effective January 1, 2012				
	Single	Parent Plus	Couple	Family
Total Premiums				
Standard PPO	\$496.14	\$764.68	\$1,144.72	\$1,272.83
Optimum PPO	\$663.30	\$922.88	\$1,432.36	\$1,595.06
Capitol Choice	\$638.16	\$927.08	\$1,414.46	\$1,568.06

**MEDICAL INSURANCE RATES
MEDICARE ELIGIBLE**

Effective January 1, 2012	Self-Supporting Rates	Funding Rates
Available Plan	(Used for Claims Costs)	(Used for Retiree Contributions)
Kentucky Retirement System Health Plan - Medical Only	\$147.30	\$147.00
Kentucky Retirement System Health Plan - Essential	\$182.41	\$171.00
Kentucky Retirement System Health Plan - Premium	\$391.35	\$372.00

Above amounts are shown as average retiree costs. In the valuation, the claims costs are converted to age 65 amounts and age adjusted. In addition, the claims costs for the Essential and Premium plans are adjusted to reflect the front end CMS reimbursement of \$53.42 per member per month due to the EGWP.



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:

Members whose participation began before 8/1/2004

<i>Age Requirement</i>	65
<i>Service Requirement</i>	At least one month of non-hazardous duty service credit
<i>Amount</i>	<p>If a member has at least 48 months of service, the monthly benefit is 2.20% multiplied by final average compensation, multiplied by years of service.</p> <p>Final compensation is calculated by taking the average of the highest five (5) fiscal years of salary. If the number of months of service credit during the five (5) year period is less than forty-eight (48), one (1) or more additional fiscal years shall be used.</p> <p>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.</p>

Members whose participation began on or after 8/1/2004, but before 9/1/2008

<i>Age Requirement</i>	65
<i>Service Requirement</i>	At least one month of non-hazardous duty service credit
<i>Amount</i>	<p>If a member has at least 48 months of service, the monthly benefit is 2.00% multiplied by final average compensation, multiplied by years of service.</p> <p>Final compensation is calculated by taking the average of the highest five (5) fiscal years of salary. If the number of months of service credit during the five (5) year period is less than forty-eight (48), one (1) or more additional fiscal years shall be used.</p> <p>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.</p>



Non-Hazardous Normal Retirement (continued):

Members whose participation began on or after 9/1/2008

Requirement

Age 65 with 60 months of non-hazardous duty service credit, or age 57 if age plus service equals at least 87.

Amount

The monthly benefit is the following benefit factor based on service credit at retirement plus 2.00% for each year of service greater than 30 years, multiplied by final average compensation, multiplied by years of service.

Service Credit	Benefit Factor
10 years or less	1.10%
10+ – 20 years	1.30%
20+ – 26 years	1.50%
26+ – 30 years	1.75%

Final compensation is calculated by taking the average of the last (not highest) five (5) complete fiscal years of salary. Each fiscal year used to determine final compensation must contain twelve (12) months of service credit.

Hazardous Normal Retirement:

Members whose participation began before 9/1/2008

Age Requirement

55

Service Requirement

At least one month of hazardous duty service credit

Amount

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

Final compensation is calculated by taking the average of the highest three (3) fiscal years of salary. If the number of months of service credit during the three (3) year period is less than twenty-four (24), one (1) 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.

Members whose participation began on or after 9/1/2008

Age Requirement

60

Service Requirement

At least 60 months of hazardous duty service credit



Hazardous Normal Retirement (continued):

Amount

The monthly benefit is the following benefit factor based on service credit at retirement, multiplied by final average compensation, multiplied by years of service.

Service Credit	Benefit Factor
10 years or less	1.30%
10+ – 20 years	1.50%
20+ – 25 years	2.25%
25+ years	2.50%

Final compensation is calculated by taking the average of the highest three (3) complete fiscal years of salary. Each fiscal year used to determine final compensation must contain twelve (12) months of service credit.

Non-Hazardous Early Retirement:

Members whose participation began before 9/1/2008

Requirement

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

Amount

Normal retirement benefit reduced by 5.0% per year for the first five years and 4.0% 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.

Members whose participation began on or after 9/1/2008

Requirement

Age 60 with 10 years of service.

Amount

Normal retirement benefit reduced by 5.0% per year for the first five years and 4.0% per year for the next five years for each year the member is younger than age 65, or does not meet the rule of 87 (age plus service) and is younger than age 57, whichever is smaller.

Hazardous Early Retirement:

Members whose participation began before 9/1/2008

Requirement

Age 50 with 15 years of service or any age with 20 years 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 service, whichever is smaller.



Hazardous Early Retirement (continued):

Members whose participation began on or after 9/1/2008

Requirement

Age 50 with 15 years of service or any age with 25 years 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 60 or has less than 25 years 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 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, 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 (waived if in line of duty disability)

Members whose participation began before 8/1/2004

Normal retirement benefit except if the member's total service credit is less than 20 years, service credit will be added for the period from the last day of paid employment to the member's 55th birthday.



Hazardous Disability (continued):

The maximum service credit added will not exceed the total service the member had on this last day of paid employment and the maximum service credit for calculating his retirement allowance, including total service and service added will not exceed 20 years. May not apply if eligible for an unreduced retirement allowance.

A member in a hazardous position who is disabled in the line of duty is entitled to the normal retirement benefit based on years of service and final compensation determined as of the date of disability (no penalty), except that the monthly retirement allowance payable shall not be less than 25% of the member's monthly final monthly rate of pay. Each dependent child shall receive 10% of the disabled member's monthly final rate of pay; however the total maximum dependent children's benefit shall not exceed 40% of the member's monthly final rate of pay.

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

Normal retirement benefit based on years of service and final compensation determined as of the date of disability (no penalty) or, if larger, 25% of the member's monthly final rate of pay. May apply for disability even after normal retirement age.

Vesting:

Members whose participation began before 9/1/2008

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.

Members whose participation began on or after 9/1/2008

Age Requirement

None

Service Requirement

60 months. Service purchased after August 1, 2004 does not count toward vesting insurance benefits.



Vesting (continued):

	Service purchased by employees who began participating on or after August 1, 2004 does not count toward vesting retirement benefits.
<i>Amount</i>	Normal retirement benefit deferred to normal retirement age or reduced benefit payable at early retirement age.
<i>Normal Retirement Age</i>	65 for non-hazardous members and 60 for hazardous members.

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

<i>Requirement</i>	Eligible for Normal or Early Retirement, or any age with 60 months 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 normal retirement age at the 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) benefit options offered under death not in line of duty.

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) benefit options offered under death not in line of duty.

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. Dependent child payments cannot exceed 40% of the member's monthly final rate of pay.

Post-Retirement Death Benefit:

<i>Requirement</i>	Retired member in receipt of monthly benefit based on at least 48 months or more of combined service with KERS, CERS or SPRS.
<i>Amount</i>	\$5,000



Non-Hazardous Member Contributions:

Members whose participation began before 9/1/2008

5% of all creditable compensation. Interest paid on the members' accounts will be set at 2.0%. Member entitled to a full refund of contributions with interest.

Members whose participation began on or after 9/1/2008

6% of all creditable compensation, with 5% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Interest paid on the members' accounts will be set at 2.5%. Member entitled to a full refund of contributions and interest in their individual account, however, the 1% contributed to the insurance fund is non-refundable.

Hazardous Member Contributions:

Members whose participation began before 9/1/2008

8% of all creditable compensation. Interest paid on the members' accounts will be set at 2.0%. Member entitled to a full refund of contributions with interest.

Members whose participation began on or after 9/1/2008

9% of all creditable compensation, with 8% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Interest paid on the members' accounts will be set at 2.5%. Member entitled to a full refund of contributions and interest in their individual account, however, the 1% contributed to the insurance fund is non-refundable.

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Non-Hazardous Insurance Plan for Retirees:

Members whose participation began before 7/1/2003

Requirement

In receipt of a monthly retirement allowance.

Amount

The Retirement System pays a portion of medical premiums for retirees based on the retired member's years of service credit. The percentage of the monthly contribution rate paid is show in the following table.

Service Credit	Percentage Paid*
4 – 9 years	25%
10 – 14 years	50%
15 – 19 years	75%
20 or more years	100%

**100% of the monthly contribution is paid towards the health insurance for a retired member who is totally disabled from any employment as a result of a duty-related injury regardless of actual service. 100% of the monthly contribution is paid toward health insurance for the spouse and dependent children of a member who dies as a result of a duty related injury, regardless of the deceased member's service. The insurance benefit will be provided as long as the spouse and dependent children are eligible for a monthly benefit.*

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 7/1/2003, but before 9/1/2008

Requirement

Monthly retirement allowance with at least 120 months of service at retirement.

Amount

The Retirement System pays \$12.50 per month for each year of earned service for retirees. This amount is shown as of the valuation date and is indexed annually based on the CPI prior to July 1, 2008 and by 1.5% thereafter.

Members whose participation began on or after 9/1/2008

Requirement

Monthly retirement allowance with at least 180 months of service at retirement.

Amount

The Retirement System pays \$10 per month for each year of earned service for retirees. This amount will be increased annually by 1.5%.



Hazardous Insurance Plan for Retirees:

Members whose participation began before 7/1/2003

Requirement

In receipt of a monthly retirement allowance.

Amount

The Retirement System pays a portion of medical premiums for retirees, their spouse and their dependents based on the retired member's years of service credit. The percentage of the monthly contribution rate paid is show in the following table.

Service Credit	Percentage Paid*
4 – 9 years	25%
10 – 14 years	50%
15 – 19 years	75%
20 or more years	100%

**100% of the monthly contribution is paid towards the health insurance for a member, member's spouse and dependents if the member is disabled in the line of duty as a result of a duty-related injury, regardless of actual service. 100% of the monthly contribution is paid toward health insurance for the spouse and dependent children of a member who dies in the line of duty regardless of the deceased member's service. The insurance benefit will be provided as long as the spouse and dependent children are eligible for a monthly benefit.*

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 7/1/2003, but before 9/1/2008

Requirement

Monthly retirement allowance with at least 120 months of service at retirement.

Amount

The Retirement System pays \$18.76 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive \$12.50 per month for each year of earned. These amounts are shown as of the valuation date and are indexed annually based on the CPI prior to July 1, 2008 and by 1.5% thereafter.

Members whose participation began on or after 9/1/2008

Requirement

Monthly retirement allowance with at least 180 months of service at retirement.

Amount

The Retirement System pays \$15 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive \$10 per month for each year of earned. These amounts will be increased annually by 1.5%.



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	2006	2007	2008	2009	2010	2011
	Number					
Beginning of Year	31,347	33,102	35,564	37,579	39,756	41,038
Added	2,782	3,244	3,366	3,060	2,565	3,250
Removed	1,027	782	1,351	883	1,283	1,077
End of Year	33,102	35,564	37,579	39,756	41,038	43,211
	Annual Allowances					
Beginning of Year	\$ 279,590,300	\$ 308,269,651	\$ 348,712,020	\$ 393,757,510	\$ 440,061,418	\$ 452,613,550
Added	\$ 34,559,599	\$ 44,888,509	56,376,123	51,679,136	21,063,111	38,861,094
Removed	5,880,248	4,446,140	11,330,633	5,375,228	8,510,979	7,880,576
End of Year	\$ 308,269,651	\$ 348,712,020	\$ 393,757,510	\$ 440,061,418	\$ 452,613,550	\$ 483,594,068
% Increase in Allowances	10.26%	13.12%	12.92%	11.76%	2.85%	6.84%
Average Annual Allowance	\$ 9,313	\$ 9,805	\$ 10,478	\$ 11,069	\$ 11,029	\$ 11,191



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

Year Ending June 30	2006	2007	2008	2009	2010	2011
	<u>Number</u>					
Beginning of Year	4,361	4,712	5,159	5,422	5,808	6,068
Added	427	500	469	650	423	502
Removed	76	53	206	264	163	102
End of Year	4,712	5,159	5,422	5,808	6,068	6,468
	<u>Annual Allowances</u>					
Beginning of Year	\$ 89,224,700	\$ 100,290,052	\$ 113,735,850	\$ 127,477,109	\$ 139,886,751	\$ 146,916,812
Added	11,876,922	\$ 14,207,939	16,794,618	13,030,426	8,566,698	14,640,991
Removed	811,570	762,141	3,053,359	620,784	1,536,637	1,298,408
End of Year	\$ 100,290,052	\$ 113,735,850	\$ 127,477,109	\$ 139,886,751	\$ 146,916,812	\$ 160,259,395
% Increase in Allowances	12.40%	13.41%	12.08%	9.73%	5.03%	9.08%
Average Annual Allowance	\$ 21,284	\$ 22,046	\$ 23,511	\$ 24,085	\$ 24,212	\$ 24,777



Non-Hazardous Retired Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	3,772	\$ 3,749,103.79	12,985	\$ 9,078,289.04	16,757	\$ 12,827,392.83
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	2,130	2,373,400.08	967	603,632.71	3,097	2,977,032.79
66-2/3% to Beneficiary	621	1,096,475.57	377	422,096.79	998	1,518,572.36
50% to Beneficiary	939	1,443,734.33	1,043	1,183,803.19	1,982	2,627,537.52
Pop-up Option	3,235	5,017,684.73	2,574	2,726,186.55	5,809	7,743,871.28
10 Years Certain	0	0.00	0	0.00	0	0.00
10 Years Certain & Life	1,196	1,137,416.83	2,629	1,880,649.98	3,825	3,018,066.81
Social Security Option						
Age 62 Basic	236	530,825.89	480	585,583.80	716	1,116,409.69
Age 62 Survivorship	560	1,286,360.02	297	413,398.75	857	1,699,758.77
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	546	514,271.61	602	456,915.87	1,148	971,187.48
20 Years Certain & Life	387	526,363.52	534	420,228.64	921	946,592.16
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	127	136,885.58	413	337,475.11	540	474,360.69
PLSO 24 Month Basic	73	49,929.21	267	203,828.85	340	253,758.06
PLSO 36 Month Basic	305	145,762.83	767	349,404.49	1,072	495,167.32
PLSO 12 Month Survivor	168	203,646.43	100	98,271.34	268	301,917.77
PLSO 24 Month Survivor	110	110,954.74	72	48,380.55	182	159,335.29
PLSO 36 Month Survivor	463	283,295.06	301	135,604.01	764	418,899.07
Total	14,868	\$ 18,606,110.22	24,408	\$ 18,943,749.67	39,276	\$ 37,549,859.89



Hazardous Retired Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	730	\$ 1,421,889.15	230	\$ 361,582.96	960	\$ 1,783,472.11
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	557	1,091,363.56	25	24,815.69	582	1,116,179.25
66-2/3% to Beneficiary	225	570,222.41	5	14,309.95	230	584,532.36
50% to Beneficiary	371	854,852.16	24	44,725.34	395	899,577.50
Pop-up Option	2,204	5,519,566.07	84	159,809.29	2,288	5,679,375.36
10 Years Certain	33	42,649.37	3	3,832.51	36	46,481.88
10 Years Certain & Life	174	353,926.90	40	72,258.68	214	426,185.58
Social Security Option						
Age 62 Basic	96	216,705.00	10	21,845.33	106	238,550.33
Age 62 Survivorship	295	631,409.28	12	28,763.89	307	660,173.17
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	66	113,330.12	10	10,818.67	76	124,148.79
20 Years Certain & Life	116	220,731.64	17	26,828.79	133	247,560.43
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	27	50,094.93	10	12,172.92	37	62,267.85
PLSO 24 Month Basic	24	54,208.12	7	6,816.12	31	61,024.24
PLSO 36 Month Basic	59	90,756.71	22	23,998.27	81	114,754.98
PLSO 12 Month Survivor	62	147,708.77	4	7,960.81	66	155,669.58
PLSO 24 Month Survivor	71	117,558.73	3	2,774.81	74	120,333.54
PLSO 36 Month Survivor	151	221,651.52	8	10,159.84	159	231,811.36
Total	5,261	\$ 11,718,624.44	514	\$ 833,473.87	5,775	\$ 12,552,098.31



Non-Hazardous Beneficiary Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	9	\$ 2,455.30	17	\$ 8,965.22	26	\$ 11,420.52
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	302	149,227.28	1,432	882,075.18	1,734	1,031,302.46
66-2/3% to Beneficiary	0	0.00	3	3,417.04	3	3,417.04
50% to Beneficiary	88	31,344.34	304	150,921.12	392	182,265.46
Pop-up Option	116	79,770.56	443	401,426.20	559	481,196.76
10 Years Certain	81	60,137.35	139	106,334.21	220	166,471.56
10 Years Certain & Life	36	16,560.91	201	136,392.53	237	152,953.44
Social Security Option						
Age 62 Basic	0	0.00	0	0.00	0	0.00
Age 62 Survivorship	17	18,913.20	109	177,429.13	126	196,342.33
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	2	264.67	2	264.67
Dependent Child	50	38,584.18	51	48,396.70	101	86,980.88
Refund	2	1,293.51	6	3,801.72	8	5,095.23
15 Years Certain & Life	27	21,403.63	72	66,171.49	99	87,575.12
20 Years Certain & Life	42	35,264.63	68	70,780.73	110	106,045.36
5 Years Certain	96	78,653.56	76	65,175.14	172	143,828.70
PLSO 12 Month Basic	0	0.00	1	389.65	1	389.65
PLSO 24 Month Basic	1	150.13	0	0.00	1	150.13
PLSO 36 Month Basic	1	146.87	2	344.76	3	491.63
PLSO 12 Month Survivor	6	2,258.53	24	29,253.03	30	31,511.56
PLSO 24 Month Survivor	3	4,308.23	14	11,916.90	17	16,225.13
PLSO 36 Month Survivor	28	15,498.23	66	30,219.88	94	45,718.11
Total	905	\$ 555,970.44	3,030	\$ 2,193,675.30	3,935	\$ 2,749,645.74



Hazardous Beneficiary Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	17	\$ 10,494.11	19	\$ 16,794.99	36	\$ 27,289.10
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	20	7,486.32	168	213,926.11	188	221,412.43
66-2/3% to Beneficiary	3	917.60	34	47,733.73	37	48,651.33
50% to Beneficiary	5	3,332.43	49	44,308.18	54	47,640.61
Pop-up Option	27	14,458.37	149	217,570.58	176	232,028.95
10 Years Certain	7	11,948.79	18	17,482.85	25	29,431.64
10 Years Certain & Life	5	1,976.01	1	89.68	6	2,065.69
Social Security Option						
Age 62 Basic	0	0.00	2	502.22	2	502.22
Age 62 Survivorship	75	127,237.38	1	2,847.65	76	130,085.03
Parital Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	3	3,238.49	3	3,238.49
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	3	795.30	13	7,064.15	16	7,859.45
15 Years Certain & Life	4	1,319.20	3	1,386.15	7	2,705.35
20 Years Certain & Life	4	1,497.73	12	7,635.01	16	9,132.74
5 Years Certain	2	1,897.78	4	5,894.05	6	7,791.83
PLSO 12 Month Basic	0	0.00	1	2,160.02	1	2,160.02
PLSO 24 Month Basic	0	0.00	1	1,444.82	1	1,444.82
PLSO 36 Month Basic	2	553.43	4	1,830.60	6	2,384.03
PLSO 12 Month Survivor	1	409.32	2	1,886.05	3	2,295.37
PLSO 24 Month Survivor	2	1,638.84	5	2,521.97	7	4,160.81
PLSO 36 Month Survivor	5	2,039.08	22	18,532.25	27	20,571.33
Total	182	\$ 188,001.69	511	\$ 614,849.55	693	\$ 802,851.24



Non-Hazardous Members

Retired and Beneficiary Information June 30, 2011
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	41	\$ 907,722	60	\$ 1,096,414	104	\$ 699,514	205	\$ 2,703,650
45-49	385	\$ 9,224,562	114	\$ 1,447,521	65	\$ 546,691	564	\$ 11,218,774
50-54	1,536	\$ 37,834,696	291	\$ 4,324,058	131	\$ 1,546,605	1,958	\$ 43,705,358
55-59	3,674	\$ 68,349,170	473	\$ 5,952,597	257	\$ 2,640,321	4,404	\$ 76,942,088
60-64	6,733	\$ 92,156,991	723	\$ 8,227,373	408	\$ 5,372,653	7,864	\$ 105,757,017
65-69	7,686	\$ 79,240,778	629	\$ 6,265,342	485	\$ 4,736,065	8,800	\$ 90,242,185
70-74	6,635	\$ 60,370,498	524	\$ 4,993,850	501	\$ 4,842,413	7,660	\$ 70,206,762
75-79	4,572	\$ 36,391,739	261	\$ 2,091,951	518	\$ 4,286,659	5,351	\$ 42,770,349
80-84	2,815	\$ 20,118,879	67	\$ 458,028	522	\$ 3,883,125	3,404	\$ 24,460,032
85-89	1,423	\$ 8,292,253	15	\$ 61,605	449	\$ 2,373,645	1,887	\$ 10,727,503
90 & Over	609	\$ 2,751,362	10	\$ 40,930	495	\$ 2,068,057	1,114	\$ 4,860,349
Totals	36,109	\$ 415,638,650	3,167	\$ 34,959,669	3,935	\$ 32,995,749	43,211	\$ 483,594,068



Hazardous Members

Retired and Beneficiary Information June 30, 2011
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	126	\$ 3,784,751	69	\$ 1,095,981	162	\$ 911,895	357	\$ 5,792,627
45-49	563	\$ 17,781,111	66	\$ 1,227,627	20	\$ 246,517	649	\$ 19,255,255
50-54	751	\$ 22,698,151	80	\$ 1,284,199	35	\$ 450,257	866	\$ 24,432,607
55-59	1,120	\$ 33,660,977	96	\$ 1,406,577	62	\$ 1,123,776	1,278	\$ 36,191,330
60-64	1,239	\$ 32,787,227	67	\$ 1,020,664	96	\$ 1,652,794	1,402	\$ 35,460,685
65-69	793	\$ 17,558,916	34	\$ 506,230	91	\$ 1,717,875	918	\$ 19,783,021
70-74	449	\$ 9,156,907	7	\$ 124,145	95	\$ 1,809,043	551	\$ 11,090,095
75-79	203	\$ 4,285,644	7	\$ 65,790	63	\$ 866,280	273	\$ 5,217,714
80-84	81	\$ 1,811,532	2	\$ 17,091	50	\$ 675,046	133	\$ 2,503,669
85-89	19	\$ 330,630	1	\$ 19,625	15	\$ 147,097	35	\$ 497,352
90 & Over	2	\$ 1,405			4	\$ 33,634	6	\$ 35,039
Totals	5,346	\$ 143,857,251	429	\$ 6,767,929	693	\$ 9,634,215	6,468	\$ 160,259,395



**Total Non-Hazardous Active Members as of June 30, 2011
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	29								29
Avg Pay	\$11,697								\$11,697
20-24	2,252	224							2,476
Avg Pay	\$19,820	\$24,405							\$20,235
25-29	3,302	1,428	84						4,814
Avg Pay	\$22,851	\$27,384	\$29,987						\$24,320
30-34	3,375	1,714	800	31					5,920
Avg Pay	\$22,914	\$30,153	\$34,416	\$35,880					\$26,632
35-39	7,305	2,256	1,447	391	9				11,408
Avg Pay	\$19,806	\$27,867	\$35,372	\$39,913	\$39,669				\$24,079
40-44	3,994	3,032	2,326	961	324	35			10,672
Avg Pay	\$21,859	\$25,739	\$31,675	\$38,738	\$46,390	\$53,745			\$27,470
44-49	3,360	3,197	3,240	1,521	848	201	159	32	12,558
Avg Pay	\$21,820	\$25,428	\$27,809	\$33,866	\$43,643	\$49,855	\$55,170	\$50,625	\$28,161
50-54	2,993	2,906	3,418	2,366	1,191	268	180	132	13,454
Avg Pay	\$22,165	\$25,568	\$27,334	\$29,952	\$37,842	\$47,245	\$48,996	\$57,896	\$28,180
55-59	2,433	2,367	2,562	2,329	1,394	306	220	151	11,762
Avg Pay	\$23,031	\$26,463	\$28,236	\$28,681	\$34,125	\$42,915	\$44,955	\$54,139	\$28,616
60-64	1,587	1,665	1,635	1,403	1,007	235	147	118	7,797
Avg Pay	\$20,376	\$25,349	\$28,090	\$29,309	\$32,648	\$37,700	\$35,095	\$52,944	\$27,541
65-69	628	777	654	430	257	49	48	57	2,900
Avg Pay	\$16,906	\$21,038	\$24,408	\$26,338	\$29,052	\$38,487	\$43,181	\$42,767	\$23,488
70 & over	290	399	369	209	145	30	20	33	1,495
Avg Pay	\$14,972	\$19,057	\$21,739	\$21,819	\$27,481	\$31,765	\$24,323	\$42,823	\$20,980
Totals	31,548	19,965	16,535	9,641	5,175	1,124	774	523	85,285
Avg Pay	\$21,324	\$26,123	\$29,071	\$31,130	\$36,592	\$43,945	\$45,478	\$52,649	\$26,694



**Total Hazardous Active Members as of June 30, 2011
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	\$23,916								\$23,916
20-24	275	18							293
Avg Pay	\$34,733	\$38,701							\$34,977
25-29	886	285	4						1,175
Avg Pay	\$40,555	\$44,933	\$49,440						\$41,647
30-34	587	786	217	2					1,592
Avg Pay	\$41,156	\$48,433	\$54,104	\$45,114					\$46,519
35-39	497	550	782	179	2				2,010
Avg Pay	\$37,663	\$47,088	\$56,002	\$59,480	\$55,962				\$49,338
40-44	244	395	599	547	131	11			1,927
Avg Pay	\$40,250	\$46,418	\$53,710	\$62,036	\$68,356	\$74,935			\$53,991
44-49	130	203	297	310	238	28	12		1,218
Avg Pay	\$40,515	\$46,247	\$51,860	\$59,953	\$67,856	\$70,008	\$82,041		\$55,614
50-54	90	93	147	144	119	33	20	6	652
Avg Pay	\$41,241	\$45,401	\$49,684	\$55,310	\$66,912	\$70,595	\$79,252	\$80,918	\$54,547
55-59	48	90	84	69	37	5	3	16	352
Avg Pay	\$34,464	\$44,089	\$54,003	\$57,867	\$62,672	\$66,607	\$76,068	\$77,894	\$51,925
60-64	23	37	40	18	11	2		3	134
Avg Pay	\$38,751	\$42,748	\$52,697	\$46,079	\$65,695	\$53,136		\$83,900	\$48,439
65-69	5	10	9	5					29
Avg Pay	\$47,189	\$34,277	\$44,657	\$54,874					\$43,276
70 & over	5	9	8				2		24
Avg Pay	\$31,711	\$44,512	\$53,259				\$88,458		\$48,423
Totals	2,791	2,476	2,187	1,274	538	79	37	25	9,407
Avg Pay	\$39,457	\$46,732	\$53,993	\$59,904	\$67,324	\$70,297	\$80,396	\$79,340	\$49,640



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

Prepared as of June 30, 2011

DRAFT





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

October 31, 2011

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, 2012. The date of the valuation was June 30, 2011.

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 undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

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

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

TJC:kc

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

PREPARED AS OF JUNE 30, 2011

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2011, 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

	6/30/2011	6/30/2010
Contributions for next fiscal year:		
Retirement	47.48%	39.80%
Insurance	<u>55.93</u>	<u>54.83</u>
Total	103.41%	94.63%
Funded status as of valuation date:		
Retirement		
Actuarial accrued liability	\$634,379,401	\$612,444,806
Actuarial value of assets	285,580,631	304,577,292
Unfunded liability on actuarial value of assets	348,798,770	307,867,514
Funded ratio on actuarial value of assets	45.02%	49.73%
Market value of assets	\$279,934,443	\$264,944,089
Unfunded liability on market value of assets	354,444,958	347,500,717
Funded ratio on market value of assets	44.13%	43.26%
Insurance		
Actuarial accrued liability	\$438,427,763	\$434,960,495
Actuarial value of assets	123,687,289	121,175,083
Unfunded liability on actuarial value of assets	314,740,474	313,785,412
Funded ratio on actuarial value of assets	28.21%	27.86%
Market value of assets	\$127,367,947	\$104,526,550
Unfunded liability on market value of assets	311,059,816	330,433,945
Funded ratio on market value of assets	29.05%	24.03%
Demographic data as of valuation date:		
Number of retired participants and beneficiaries	1,263	1,223
Number of vested former members	52	55
Number of former members due a refund	305	290
Number of active members	965	961
Total salary	\$48,692,616	\$51,506,712
Average salary	\$50,459	\$53,597



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. However, plan designs have changed for the Health Insurance plans that cover Medicare eligible retirees and non-Medicare eligible retirees. The changes are summarized below.
 - The annual deductible and out-of-pocket maximum have been increased for Plan Year 2012 under the KRS Health Plan Medical Only, from the standard Part B deductible to \$500.
 - The prescription drug coverage under the KRS Health Plan Essential for Plan Years 2011 and 2012 have been altered to reflect the same coverage as described in the Standard Medicare Part D benefit parameters.
 - The annual deductible, out-of-pocket maximum and prescription drug co-payments have increased under the KRS Health Plan Premium for Plan Year 2011.
 - Plan design changes have also been implemented for Plan Year 2012 for the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky.
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, 2010 and June 30, 2011 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 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, 2011 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
965	\$48,692,616	\$50,459	37.7	10.6

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
6/30/2006	1,028	\$47,743,865	\$46,443	4.8%
6/30/2007	957	49,247,580	51,460	10.8
6/30/2008	993	53,269,080	53,645	4.2
6/30/2009	946	51,660,396	54,609	1.8
6/30/2010	961	51,506,712	53,597	(1.9)
6/30/2011	965	48,692,616	50,459	(5.9)

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	1,071	\$42,717,950	\$39,886	61.2
Disability	44	\$789,274	17,938	56.0
Beneficiary	148	3,960,180	26,758	64.7
Total in SPRS	1,263	\$47,467,404	\$37,583	61.4

This valuation also includes 357 inactive members of which 52 are vested.



SECTION III - ASSETS

1. As of June 30, 2011 the total market value of assets amounted to \$407,302,390 as shown in the following table. The Insurance assets include both the amount in the health care trust and the amount in the 401(h) account in the pension trust established to meet the requirements of HB1.

Retirement	Insurance	SPRS Total
\$279,934,443	\$127,367,947	\$407,302,390

2. The five-year smoothed market related actuarial value of assets used for the current valuation was \$409,267,920. Schedule B shows the development of the actuarial value of assets as of June 30, 2011. The following table shows the actuarial value of assets.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	JUNE 30, 2011	JUNE 30, 2010
Retirement	\$ 285,580,631	\$ 304,577,292
Insurance	<u>123,687,289</u>	<u>121,175,083</u>
Total	\$ 409,267,920	\$ 425,752,375



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, 2011. 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 \$701,964,991, of which \$496,684,389 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$2,509,840 is for the prospective benefits payable on account of inactive members, \$202,770,762 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 \$285,580,631 as of June 30, 2011. The difference of \$416,384,360 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, \$34,201,120 is the present value of future contributions expected to be made by members, and the balance of \$382,183,240 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 7.84% of payroll are required to fund the continuing benefit accruals for the average active member of SPRS.
3. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$33,384,470. When this amount is subtracted from \$382,183,240, which is the present value of the total future contributions to be made by the State, there remains \$348,798,770 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 39.36% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of \$348,798,770 over 26 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.28% 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 \$581,902,928, of which \$244,274,249 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$8,165,477 is for the prospective benefits payable on account of inactive members, and \$329,463,202 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 \$123,687,289 as of June 30, 2011. The difference of \$458,215,639 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, \$771,703 is the present value of future contributions expected to be made by members, and the balance of \$457,443,936 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 30.70% of payroll are required to fund the continuing benefit accruals for the average active member of SPRS.
3. Prospective employer normal contributions on account of insurance benefits at the above rates have a present value of \$142,703,462. When this amount is subtracted from \$457,443,936, which is the present value of the total future contributions to be made by the employers, there remains \$314,740,474 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 24.86% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of \$314,740,474 over 26 years on the assumption that the aggregate payroll for non-hazardous and hazardous members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.37% of payroll.



SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES

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

Experience Gain/(Loss) Retirement Benefits

		Amount
(1)	UAAL* as of 6/30/10	\$ 307.9
(2)	Normal cost from last valuation	4.0
(3)	Employer contributions	12.7
(4)	Interest accrual: [(1) + (2)] x .0775 - (3) x .03875	23.7
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 322.9
(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)	\$ 322.9
(9)	Actual UAAL as of 6/30/11	\$ 348.8
(10)	Gain/(loss): (8) - (9)	\$ (25.9)
(11)	Accrued liabilities as of 6/30/10	\$ 612.4
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	(4.2)%

**Unfunded actuarial accrued liability.*



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

		Amount	
(1)	UAAL* as of 6/30/10	\$	313.8
(2)	Normal cost from last valuation		16.5
(3)	Expected employer contributions		<u>28.1</u>
(4)	Interest accrual: [(1) + (2) - (3)] x .045		13.6
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$	315.8
(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)	\$	315.8
(9)	Actual UAAL as of 6/30/11	\$	314.7
(10)	Gain/(loss): (8) - (9)	\$	1.1
(11)	Accrued liabilities as of 6/30/10	\$	435.0
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year		0.3%

* *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 6/30/11	Insurance \$ Gain (or Loss) For Year Ending 6/30/11
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (14.1)	\$ (12.8)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(1.0)	0.1
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	(0.1)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	4.1	3.0
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.	7.3	33.5
New Members. Additional unfunded accrued liability will produce a loss.	0.0	(1.3)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(13.2)	(1.2)
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	(2.0)	9.5
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	<u>(7.0)</u>	<u>(29.6)</u>
Gain (or Loss) During Year From Financial Experience	\$ (25.9)	\$ 1.1
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	<u>0.0</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$ (25.9)	\$ 1.1



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 2012/2013 fiscal year.

Required Contribution Rates Retirement

Contribution for	Amount	% of Payroll
A. Normal Cost:		
(1) Service retirement benefits	\$ 7,302,312	15.00%
(2) Disability benefits	328,449	0.67
(3) Survivor benefits	82,452	0.17
(4) Total	\$ 7,713,213	15.84%
B. Member Contributions	\$ 3,895,409	8.00%
C. Employer Normal Cost: [A(4) - B]	\$ 3,817,804	7.84%
D. Administrative Expenses	\$ 136,339	0.28%
E. Unfunded Actuarial Accrued Liability Contributions*:		
(1) UAAL Contribution Based on 6/30/10 Valuation:	\$ 15,605,983	32.05%
(2) Change due to:		
a. Active decrements	\$ 608,212	1.25%
b. Pay increases	(403,701)	(0.83)
c. Retiree mortality	(21,743)	(0.04)
d. Investment return	689,469	1.42
e. COLA	380,233	0.78
f. Assumption Change	0	0.00
g. Other	2,304,695	4.72
h. Total Change	\$ 3,557,165	7.31%
(3) UAAL Contribution Based on 6/30/11 Valuation: [E(1) +E(2)h]	\$ 19,163,148	39.36%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	\$ 23,117,291	47.48%

* Based on 27 year amortization of the UAAL from June 30, 2010 and 26 years from June 30, 2011



**Required Contribution Rates
Insurance**

Contribution for	Amount	% of Payroll
A. Normal Cost	\$ 14,983,962	30.77%
B. Member Contributions*	\$ 34,085	0.07%
C. Employer Normal Cost: [A - B]	\$ 14,949,877	30.70%
D. Administrative Expenses	\$ 178,949	0.37%
E. Unfunded Actuarial Accrued Liability**	\$ 12,105,403	24.86%
F. Total Recommended Employer Contribution Rate: [C+D+E]	\$ 27,234,229	55.93%

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

*** Based on 26 year amortization of the UAAL from June 30, 2011*

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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, 2011**

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	1,263
Terminated employees entitled to benefits but not yet receiving benefits	357
Active Members	<u>965</u>
Total	2,585

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

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**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))
6/30/2006	\$ 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
6/30/2008	350,891,451	587,129,257	236,237,806	59.8	53,269,080	443.5
6/30/2009	329,966,989	602,328,868	272,361,879	54.8	51,660,396	527.2
6/30/2010	304,577,292	612,444,806	307,867,514	49.7	51,506,712	597.7
6/30/2011	285,580,631	634,379,401	348,798,770	45.0	48,692,616	716.3

**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))
6/30/2006	\$ 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
6/30/2008	123,961,197	445,107,468	321,146,271	27.8	53,269,080	602.9
6/30/2009	123,526,647	364,031,141	240,504,494	33.9	51,660,396	465.5
6/30/2010	121,175,083	434,960,495	313,785,412	27.9	51,506,712	609.2
6/30/2011	123,687,289	438,427,763	314,740,474	28.2	48,692,616	646.4



**RETIREMENT BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Annual Required Contribution	Actual Contributions	Percentage Contributed
June 30, 2006	\$ 6,352,777	\$ 4,244,445	66.8%
June 30, 2007	9,023,665	6,142,326	68.1
June 30, 2008	13,823,490	7,443,277	53.8
June 30, 2009	15,951,841	8,186,259	51.3
June 30, 2010	18,764,941	9,489,399	50.6
June 30, 2011	18,463,372	12,657,225	68.6

**INSURANCE BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Annual Required Contribution	Retiree Drug Subsidy (RDS) Contribution	Employer Contributions	Total Contributions	Percentage Contributed
June 30, 2006	\$ 12,554,648	\$ 0	\$ 6,880,517	\$ 6,880,517	54.8%
June 30, 2007	15,233,320	361,942	6,488,600	6,850,542	45.0
June 30, 2008	43,469,735	183,564	7,329,229	7,512,793	17.3
June 30, 2009	29,324,666	229,240	7,413,552	7,642,792	26.1
June 30, 2010	30,302,151	273,684	8,369,428	8,643,112	28.5
June 30, 2011	25,772,574	0	11,050,964	11,050,964	42.9



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

Retirement Benefits	
Valuation date	6/30/2011
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	26 years
Asset valuation method	5 Year Smoothed Market
Actuarial assumptions:	
Investment rate of return*	7.75%
Projected salary increases**	4.5% - 17.0%
Cost-of-living adjustment	None
*Includes price inflation at	3.50%
**Includes wage inflation at	4.50%

Insurance Benefits	
Valuation date	6/30/2011
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	26 years
Asset valuation method	5 Year Smoothed Market
Medical Trend Assumption (Pre-Medicare)	10.5% - 5.0%
Medical Trend Assumption (Post-Medicare)	8.5% - 5.0%
Year of Ultimate Trend	2019
Actuarial assumptions:	
Investment rate of return*	4.50%
*Includes price 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, 2011 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2010. 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, 2011	JUNE 30, 2010
ASSETS		
Current actuarial value of assets	\$ 285,580,631	\$ 304,577,292
Prospective contributions		
Member contributions	\$ 34,201,120	\$ 36,719,577
Employer normal contributions	33,384,470	35,145,151
Unfunded accrued liability contributions	<u>348,798,770</u>	<u>307,867,514</u>
Total prospective contributions	<u>\$ 416,384,360</u>	<u>\$ 379,732,242</u>
Total assets	<u>\$ 701,964,991</u>	<u>\$ 684,309,534</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 496,684,389	\$ 473,234,521
Present value of benefits payable on account of active members	202,770,762	208,416,874
Present value of benefits payable on account of inactive members	<u>2,509,840</u>	<u>2,658,139</u>
Total liabilities	<u>\$ 701,964,991</u>	<u>\$ 684,309,534</u>



**VALUATION BALANCE SHEET
INSURANCE BENEFITS**

	JUNE 30, 2011	JUNE 30, 2010
ASSETS		
Current actuarial value of assets	\$ 123,687,289	\$ 121,175,083
Prospective contributions		
Member contributions	\$ 771,703	\$ 599,327
Employer normal contributions	142,703,462	161,609,799
Unfunded accrued liability contributions	<u>314,740,474</u>	<u>313,785,412</u>
Total prospective contributions	<u>\$ 458,215,639</u>	<u>\$ 475,994,538</u>
Total assets	<u><u>\$ 581,902,928</u></u>	<u><u>\$ 597,169,621</u></u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 244,274,249	\$ 245,812,639
Present value of benefits payable on account of active members	329,463,202	343,588,794
Present value of benefits payable on account of inactive members	<u>8,165,477</u>	<u>7,768,188</u>
Total liabilities	<u><u>\$ 581,902,928</u></u>	<u><u>\$ 597,169,621</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)				
6/30/2006	\$ 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	110,583,481	348,806,508	100.0	77.7	0.0
6/30/2008	41,391,416	426,311,368	119,426,473	350,891,451	100.0	72.6	0.0
6/30/2009	41,664,469	459,585,353	101,079,046	329,966,989	100.0	62.7	0.0
6/30/2010	42,011,523	475,892,659	94,540,624	304,577,292	100.0	55.2	0.0
6/30/2011	43,574,097	499,194,229	91,611,075	285,580,631	100.0	48.5	0.0

**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)				
6/30/2006	\$ 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
6/30/2008	0	178,655,245	266,452,223	123,961,197	100.0	69.4	0.0
6/30/2009	0	167,091,453	196,939,688	123,526,647	100.0	73.9	0.0
6/30/2010	0	253,580,827	181,379,668	121,175,083	100.0	47.8	0.0
6/30/2011	0	252,439,726	185,988,037	123,687,289	100.0	49.0	0.0



SCHEDULE B

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

Valuation date June 30:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 329,966,989	\$ 304,577,292				
B. Market Value End of Year	264,944,089	279,934,443				
C. Market Value Beginning of Year	256,571,073	264,944,089				
D. Cash Flow						
D1. Contributions	13,616,226	17,882,105				
D2. Benefit Payments	(45,726,064)	(46,813,041)				
D3. Administrative Expenses	(129,911)	(134,547)				
D4. Investment Expenses	<u>(810,560)</u>	<u>(3,910,742)</u>				
D5. Net	(33,050,309)	(32,976,225)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	41,423,325	47,966,579				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	19,445,528	23,317,621				
E4. Amount for Phased-In Recognition	21,977,797	24,648,958				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	4,395,559	4,929,792	0	0	0	0
F2. First Prior Year	(15,234,391)	4,395,559	4,929,792	0	0	0
F3. Second Prior Year	(8,083,253)	(15,234,391)	4,395,559	4,929,792	0	0
F4. Third Prior Year	4,654,236	(8,083,253)	(15,234,391)	4,395,559	4,929,792	0
F5. Fourth Prior Year	<u>2,482,933</u>	<u>4,654,236</u>	<u>(8,083,253)</u>	<u>(15,234,391)</u>	<u>4,395,559</u>	<u>4,929,792</u>
F6. Total Recognized Investment Gain	(11,784,916)	(9,338,057)	(13,992,293)	(5,909,040)	9,325,351	4,929,792
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 304,577,292	\$ 285,580,631				
H. Difference Between Market & Actuarial Values	\$ (39,633,203)	\$ (5,646,188)	\$ 8,346,105	\$ 14,255,145	\$ 4,929,792	\$ 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:	2010	2011	2012	2013	2014	2015
A. Actuarial Value Beginning of Year	\$ 123,526,647	\$ 121,175,083				
B. Market Value End of Year	104,526,550	127,367,947				
C. Market Value Beginning of Year	93,686,940	104,526,550				
D. Cash Flow						
D1. Contributions	8,670,692	11,418,135				
D2. Benefit Payments	(10,768,660)	(12,171,288)				
D3. Administrative Expenses	(146,716)	(178,949)				
D4. Investment Expenses	<u>(195,077)</u>	<u>(846,892)</u>				
D5. Net	(2,439,761)	(1,778,994)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	13,279,371	24,620,391				
E2. Assumed Rate	4.50%	4.50%				
E3. Amount for Immediate Recognition	4,360,484	5,529,614				
E4. Amount for Phased-In Recognition	8,918,887	19,090,777				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	1,783,777	3,818,155	0	0	0	0
F2. First Prior Year	(6,729,517)	1,783,777	3,818,155	0	0	0
F3. Second Prior Year	(3,484,262)	(6,729,517)	1,783,777	3,818,155	0	0
F4. Third Prior Year	3,373,433	(3,484,262)	(6,729,517)	1,783,777	3,818,155	0
F5. Fourth Prior Year	<u>784,282</u>	<u>3,373,433</u>	<u>(3,484,262)</u>	<u>(6,729,517)</u>	<u>1,783,777</u>	<u>3,818,155</u>
F6. Total Recognized Investment Gain	(4,272,287)	(1,238,414)	(4,611,847)	(1,127,585)	5,601,932	3,818,155
G. Actuarial Value End of Year:						
A.+D5.+E3.+F6.	\$ 121,175,083	\$ 123,687,289				
H. Difference Between Market & Actuarial Values	\$ (16,648,533)	\$ 3,680,658	\$ 8,292,505	\$ 9,420,090	\$ 3,818,155	\$ 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 based on the actuarial experience study prepared as of June 30, 2008, submitted August 14, 2009, and adopted by the Board on August 20, 2009.

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 insurance benefits 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 4.50% per annum:

Service	Annual Rates of		
	Merit & Seniority	Base (Economy)	Increase Next Year
0-1	12.50%	4.50%	17.00%
1-2	7.50%	4.50%	12.00%
2-3	5.50%	4.50%	10.00%
3-4	4.50%	4.50%	9.00%
4-5	3.50%	4.50%	8.00%
5-6	2.50%	4.50%	7.00%
6-7	1.50%	4.50%	6.00%
7-8	2.00%	4.50%	6.50%
8-9	1.00%	4.50%	5.50%
9-10	0.50%	4.50%	5.00%
10 & over	0.00%	4.50%	4.50%



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**			Service Retirement		
		Male	Female	Disability	Service	Rate ⁺	Rate ⁺⁺
20	2.50%	0.03%	0.01%	0.05%	20	9.00%	
25	2.50	0.03	0.01	0.07	25	22.00	9.00%
30	2.50	0.04	0.02	0.09	30	25.00	22.00
35	2.50	0.04	0.02	0.13	35	33.33	25.00
40	2.50	0.05	0.04	0.20	40		33.33
45	2.50	0.08	0.05	0.33			
50	2.50	0.13	0.07	0.56			
55		0.22	0.11	0.92			
60		0.40	0.22	1.46			

* Select rates of withdrawal apply in the first five years of employment regardless of age. The rates are 20.0%, 7.5%, 3.0%, 3.0% and 3.0%, respectively.

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

+ For members whose participation began before 9/1/2008. The annual rate of service retirement is 100% at age 55.

++ For members whose participation began on or after 9/1/2008. The annual rate of service retirement is 100% at age 60.

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. There is little margin in the current mortality tables for possible future improvement in mortality rates and that margin will be reviewed again when the next experience investigation is conducted.

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. No implicit rate subsidy is calculated or recognized as the subsidy is the responsibility of KEHP. For the Medicare-eligible retirees, claims were analyzed and current premiums were utilized with appropriate aging factors applied.

ASSET VALUATION METHOD: 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.



HEALTH CARE BENEFITS VALUED: Medical and drug benefits for retirees under age 65 and Medicare eligible.

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

Fiscal Year Ended	Trend	
	Under Age 65	Age 65 and Over
2012	10.5%	8.5%
2013	9.5%	7.5%
2014	8.5%	7.0%
2015	7.5%	6.5%
2016	6.5%	6.0%
2017	6.0%	5.5%
2018	5.5%	5.0%
2019 and beyond	5.0%	5.0%

HEALTH CARE 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

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

Participation	100%
Spouse Coverage	100%



HEALTH CARE MONTHLY RATES: Following are charts detailing expected monthly rates for pre-Medicare eligible and post-Medicare eligible retirees for the year following the valuation date.

**MEDICAL INSURANCE RATES
PRE-MEDICARE ELIGIBLE**

Effective January 1, 2011				
	Single	Parent Plus	Couple	Family
Total Premiums				
Standard PPO	\$486.40	\$749.84	\$1,127.80	\$1,253.56
Optimum PPO	\$650.30	\$905.42	\$1,405.66	\$1,565.88
Capitol Choice	\$625.68	\$909.02	\$1,387.36	\$1,537.92

Effective January 1, 2012				
	Single	Parent Plus	Couple	Family
Total Premiums				
Standard PPO	\$496.14	\$764.68	\$1,144.72	\$1,272.83
Optimum PPO	\$663.30	\$922.88	\$1,432.36	\$1,595.06
Capitol Choice	\$638.16	\$927.08	\$1,414.46	\$1,568.06

**MEDICAL INSURANCE RATES
MEDICARE ELIGIBLE**

Effective January 1, 2012	Self-Supporting Rates	Funding Rates
Available Plan	(Used for Claims Costs)	(Used for Retiree Contributions)
Kentucky Retirement System Health Plan - Medical Only	\$147.30	\$147.00
Kentucky Retirement System Health Plan - Essential	\$182.41	\$171.00
Kentucky Retirement System Health Plan - Premium	\$391.35	\$372.00

Above amounts are shown as average retiree costs. In the valuation, the claims costs are converted to age 65 amounts and age adjusted. In addition, the claims costs for the Essential and Premium plans are adjusted to reflect the front end CMS reimbursement of \$53.42 per member per month due to the EGWP.



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:

Members whose participation began before 9/1/2008

Age Requirement 55

Service Requirement At least one month of hazardous duty service credit

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

Final compensation is calculated by taking the average of the highest three (3) fiscal years of salary. If the number of months of service credit during the three (3) year period is less than twenty-four (24), one (1) 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.

Members whose participation began on or after 9/1/2008

Age Requirement 60

Service Requirement At least 60 months of hazardous duty service credit

Amount The monthly benefit is the following benefit factor based on service credit at retirement, multiplied by final average compensation, multiplied by years of service.

Service Credit	Benefit Factor
10 years or less	1.30%
10+ – 20 years	1.50%
20+ – 25 years	2.25%
25+ years	2.50%

Final compensation is calculated by taking the average of the highest three (3) complete fiscal years of salary. Each fiscal year used to determine final compensation must contain twelve (12) months of service credit.



Early Retirement:

Members whose participation began before 9/1/2008

Requirement Age 50 with 15 years of service or any age with 20 years 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 service, whichever is smaller.

Members whose participation began on or after 9/1/2008

Requirement Age 50 with 15 years of service or any age with 25 years 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 60 or has less than 25 years service, whichever is smaller.

Disability:

Age Requirement None

Service Requirement 60 months (waived if in line of duty disability)

Members whose participation began before 8/1/2004

Normal retirement benefit except if the member's total service credit is less than 20 years, service credit will be added for the period from the last day of paid employment to the member's 55th birthday.

The maximum service credit added will not exceed the total service the member had on this last day of paid employment and the maximum service credit for calculating his retirement allowance, including total service and service added will not exceed 20 years. May not apply if eligible for an unreduced retirement allowance.

A member in a hazardous position who is disabled in the line of duty is entitled to the normal retirement benefit based on years of service and final compensation determined as of the date of disability (no penalty), except that the monthly retirement allowance payable shall not be less than 25% of the member's monthly final monthly rate of pay. Each dependent child shall receive 10% of the disabled member's monthly final rate of pay; however the total maximum dependent children's benefit shall not exceed 40% of the member's monthly final rate of pay.



Disability (continued):

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

Normal retirement benefit based on years of service and final compensation determined as of the date of disability (no penalty) or, if larger, 25% of the member's monthly final rate of pay. May apply for disability even after normal retirement age.

Vesting:

Members whose participation began before 9/1/2008

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

Members whose participation began on or after 9/1/2008

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

60

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

Requirement

Eligible for Normal or Early Retirement, or any age with 60 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 normal retirement age at the 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) benefit options offered under death not in line of duty.

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

<i>Requirement</i>	None
<i>Amount</i>	The non-spouse may choose (1) a \$10,000 lump sum payment or (2) benefit options offered under death not in line of duty.

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. Dependent child payments cannot exceed 40% of the member's monthly final rate of pay.

Post-Retirement Death Benefit:

<i>Requirement</i>	Retired member in receipt of monthly benefit based on at least 48 months or more of combined service with KERS, CERS or SPRS.
<i>Amount</i>	\$5,000

Member Contributions:

Members whose participation began before 9/1/2008 8% of all creditable compensation. Interest paid on the members' accounts will be set at 2.0%. Member entitled to a full refund of contributions with interest.

Members whose participation began on or after 9/1/2008 9% of all creditable compensation, with 8% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Interest paid on the members' accounts will be set at 2.5%. Member entitled to a full refund of contributions and interest in their individual account, however, the 1% contributed to the insurance fund is non-refundable.



Insurance Plan for Retirees:

Members whose participation began before 7/1/2003

Requirement

In receipt of a monthly retirement allowance.

Amount

The Retirement System pays a portion of medical premiums for retirees, their spouse and their dependents based on the retired member's years of service credit. The percentage of the monthly contribution rate paid is show in the following table.

Service Credit	Percentage Paid*
4 – 9 years	25%
10 – 14 years	50%
15 – 19 years	75%
20 or more years	100%

**100% of the monthly contribution is paid towards the health insurance for a member, member's spouse and dependents if the member is disabled in the line of duty as a result of a duty-related injury, regardless of actual service. 100% of the monthly contribution is paid toward health insurance for the spouse and dependent children of a member who dies in the line of duty regardless of the deceased member's service. The insurance benefit will be provided as long as the spouse and dependent children are eligible for a monthly benefit.*

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 7/1/2003, but before 9/1/2008

Requirement

Monthly retirement allowance with at least 120 months of service at retirement.

Amount

The Retirement System pays \$18.76 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive \$12.50 per month for each year of earned. These amounts are shown as of the valuation date and are indexed annually based on the CPI prior to July 1, 2008 and by 1.5% thereafter.

Members whose participation began on or after 9/1/2008

Requirement

Monthly retirement allowance with at least 180 months of service at retirement.

Amount

The Retirement System pays \$15 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive \$10 per month for each year of earned. These amounts will be increased annually by 1.5%.



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	2006	2007	2008	2009	2010	2011
				<u>Number</u>		
Beginning of Year	1,036	1,067	1,105	1,135	1,184	1,223
Added	43	49	42	75	54	52
Removed	10	11	12	26	15	12
End of Year	1,067	1,105	1,135	1,184	1,223	1,263
				<u>Annual Allowances</u>		
Beginning of Year	\$ 32,983,900	\$ 34,651,251	\$ 37,208,377	\$ 41,293,017	\$ 44,273,937	\$ 45,515,797
Added	1,943,760	2,836,956	4,330,608	3,380,331	1,543,665	2,341,589
Removed	276,409	279,830	245,968	399,410	301,805	389,982
End of Year	\$ 34,651,251	\$ 37,208,377	\$ 41,293,017	\$ 44,273,937	\$ 45,515,797	\$ 47,467,404
% Increase in Allowances	5.06%	7.38%	10.98%	7.22%	2.80%	4.29%
Average Annual Allowance	\$ 32,475	\$ 33,673	\$ 36,382	\$ 37,394	\$ 37,217	\$ 37,583



Retired Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	102	\$ 329,243.36	10	\$ 23,957.62	112	\$ 353,200.98
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	120	381,589.52	1	4,742.52	121	386,332.04
66-2/3% to Beneficiary	79	300,330.57	1	2,999.34	80	303,329.91
50% to Beneficiary	80	288,973.44	1	2,547.84	81	291,521.28
Pop-up Option	434	1,528,369.98	4	13,887.04	438	1,542,257.02
10 Years Certain	1	0.00	0	0.00	1	0.00
10 Years Certain & Life	33	103,237.39	1	1,733.20	34	104,970.59
Social Security Option						
Age 62 Basic	31	76,885.45	0	0.00	31	76,885.45
Age 62 Survivorship	144	356,402.64	1	7,813.28	145	364,215.92
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	14	41,486.59	1	3,860.76	15	45,347.35
20 Years Certain & Life	33	102,913.65	2	3,924.26	35	106,837.91
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	2	459.51	2	459.51
PLSO 12 Month Survivor	6	20,474.11	0	0.00	6	20,474.11
PLSO 24 Month Survivor	5	13,107.40	0	0.00	5	13,107.40
PLSO 36 Month Survivor	9	16,662.52	0	0.00	9	16,662.52
Total	1,091	\$ 3,559,676.62	24	\$ 65,925.37	1,115	\$ 3,625,601.99



Beneficiary Lives Summary June 30, 2011

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	0	\$ 0.00	1	\$ 425.22	1	\$ 425.22
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	4	4,738.33	57	147,368.03	61	152,106.36
66-2/3% to Beneficiary	1	788.23	6	12,455.62	7	13,243.85
50% to Beneficiary	1	1,279.45	16	24,982.71	17	26,262.16
Pop-up Option	1	471.12	24	63,947.48	25	64,418.60
10 Years Certain	1	582.77	0	0.00	1	582.77
10 Years Certain & Life	0	0.00	0	0.00	0	0.00
Social Security Option						
Age 62 Basic	0	0.00	2	3,060.44	2	3,060.44
Age 62 Survivorship	0	0.00	28	57,334.49	28	57,334.49
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	0	0.00	0	0.00	0	0.00
20 Years Certain & Life	0	0.00	4	6,760.68	4	6,760.68
5 Years Certain	2	5,820.44	0	0.00	2	5,820.44
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	10	\$ 13,680.34	138	\$ 316,334.67	148	\$ 330,015.01



**Retired and Beneficiary Information June 30, 2011
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	24	\$ 781,260	8	\$ 135,611	5	\$ 45,852	37	\$ 962,723
45-49	94	3,394,240	4	62,992	4	46,471	102	3,503,702
50-54	135	5,613,985	7	132,628	8	142,511	150	5,889,124
55-59	195	8,517,891	8	107,948	11	165,385	214	8,791,223
60-64	288	11,631,014	7	155,415	23	586,387	318	12,372,816
65-69	140	5,477,195	5	87,749	25	723,402	170	6,288,345
70-74	102	3,465,926	3	73,720	8	321,606	113	3,861,252
75-79	49	1,884,032	2	33,211	15	589,351	66	2,506,595
80-84	31	1,337,499	0	0	25	654,780	56	1,992,279
85-89	11	575,575	0	0	17	606,205	28	1,181,780
90 & Over	2	39,333	0	0	7	78,229	9	117,563
Totals	1,071	\$ 42,717,950	44	\$ 789,274	148	\$ 3,960,180	1,263	\$ 47,467,404



**Total Active Members as of June 30, 2011
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 Avg Pay									
20-24 Avg Pay	21 \$34,315	1 \$37,308							22 \$34,451
25-29 Avg Pay	68 \$40,603	31 \$46,990							99 \$42,603
30-34 Avg Pay	36 \$41,685	108 \$47,784	35 \$50,029						179 \$46,996
35-39 Avg Pay	89 \$22,365	63 \$47,768	94 \$53,053	38 \$60,381	2 \$57,264				286 \$43,342
40-44 Avg Pay	6 \$37,930	37 \$47,138	47 \$51,221	101 \$62,134	38 \$68,748	3 \$70,644			232 \$58,099
44-49 Avg Pay		14 \$44,896	9 \$52,407	24 \$58,912	43 \$69,736	8 \$75,264	4 \$76,350	1 \$88,812	103 \$63,195
50-54 Avg Pay	4 \$42,732	1 \$46,176	2 \$46,008	3 \$57,784	9 \$69,463	4 \$76,356	5 \$69,242	3 \$72,556	31 \$63,772
55-59 Avg Pay				1 \$63,456	1 \$69,288	1 \$80,256	3 \$73,416	3 \$81,216	9 \$75,211
60-64 Avg Pay								2 \$76,392	2 \$76,392
65-69 Avg Pay				1 \$65,892					1 \$65,892
70 & over Avg Pay			1 \$48,264						1 \$48,264
Totals Avg Pay	224 \$32,908	255 \$47,384	188 \$51,900	168 \$61,230	93 \$69,033	16 \$74,983	12 \$72,655	9 \$78,101	965 \$50,459