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Report on the Annual Valuation of the County Employees Retirement System

Prepared as of June 30, 2014

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Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 12, 2014

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, 2015. The date of the valuation was June 30, 2014.

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.

Since the previous valuation, the cash balance plan (a provision of Senate Bill 2) for members whose participation date is on or after January 1, 2014 has been reflected in this valuation.

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 are members of the American Academy of Actuaries and meet 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.

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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,

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Chief Executive Officer

Todd B. Green ASA, FCA, MAAA
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REPORT ON THE ANNUAL VALUATION OF THE COUNTY EMPLOYEES RETIREMENT SYSTEM

PREPARED AS OF JUNE 30, 2014

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2014, 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	
	6/30/2014	6/30/2013	6/30/2014	6/30/2013	6/30/2014	6/30/2013
Contributions for next fiscal year:						
Retirement	12.42%	12.75%	20.26%	20.73%		
Insurance	4.88	5.35	13.42	14.97	N/A	N/A
Total	17.30%	18.10%	33.68%	35.70%		
Funded status as of valuation date:						
Retirement						
Actuarial accrued liability	$9,772,522,616	$9,378,876,114	$3,288,825,753	$3,124,205,593	$13,061,348,369	$12,503,081,707
Actuarial value of assets	$6,117,133,692	$5,637,094,483	$1,967,640,027	$1,801,691,410	$8,084,773,719	$7,438,785,893
Unfunded liability on actuarial value of assets	$3,655,388,924	$3,741,781,631	$1,321,185,726	$1,322,514,183	$4,976,574,650	$5,064,295,814
Funded ratio on actuarial value of assets	62.60%	60.10%	59.83%	57.67%	61.90%	59.50%
Market value of assets	$6,507,300,157	$5,780,830,355	$2,082,998,414	$1,830,657,969	$8,590,298,571	$7,611,488,324
Unfunded liability on market value of assets	$3,265,222,459	$3,598,045,759	$1,205,827,339	$1,293,547,624	$4,471,049,798	$4,891,593,383
Funded ratio on market value of assets	66.59%	61.64%	63.34%	58.60%	65.77%	60.88%
Insurance						
Actuarial accrued liability	$2,616,914,600	$2,443,894,100	$1,493,864,379	$1,437,332,817	$4,110,778,979	$3,881,226,917
Actuarial value of assets	$1,831,199,465	$1,628,244,197	$997,733,237	$892,774,391	$2,828,932,702	$2,521,018,588
Unfunded liability on actuarial value of assets	$785,715,135	$815,649,903	$496,131,142	$544,558,426	$1,281,846,277	$1,360,208,329
Funded ratio on actuarial value of assets	69.98%	66.62%	66.79%	62.11%	68.82%	64.95%
Market value of assets	$1,899,557,376	$1,633,696,661	$1,034,307,636	$894,232,297	$2,933,865,012	$2,527,928,958
Unfunded liability on market value of assets	$717,357,224	$810,197,439	$459,556,743	$543,100,520	$1,176,913,967	$1,353,297,959
Funded ratio on market value of assets	72.59%	66.85%	69.24%	62.21%	71.37%	65.13%
Demographic data as of valuation date:						
Number of retired participants and beneficiaries	49,935	47,676	7,646	7,293	57,581	54,969
Number of vested former members	10,329	11,899	588	614	10,917	12,513
Number of former members due a refund	66,661	61,179	1,940	1,802	68,601	62,981
Number of active members	81,115	81,815	9,194	9,123	90,309	90,938
Total salary	$2,272,270,287	$2,236,277,489	$479,164,016	$461,672,567	$2,751,434,303	$2,697,950,056
Average salary	$28,013	$27,333	$52,117	$50,605	$30,467	$29,668

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 and losses 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, the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky, has made the following changes for plan year 2015:
    - The new medical plan administrator is Anthem Blue Cross Blue Shield.
    - The new prescription drug plan administrator is CVS/caremark and changes were made to the prescription drug formulary.
    - Out-of-pocket maximums are now tracked separately for medical and prescription drug coverage. Prescription drug coverage is now capped.
    - The LivingWell PPO plan has lowered co-pays for mental health and allergy injections.

5. The following change has been reflected in this valuation in accordance with Senate Bill 2:
    - The cash balance plan for members whose participation date is on or after January 1, 2014 has been reflected in this valuation.

6. 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, 2014 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	81,115	$2,272,270,287	$28,013	48.1	9.6
Hazardous	9,194	479,164,016	52,117	39.2	10.6
Total in CERS	90,309	$2,751,434,303	$30,467	47.2	9.7

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
6/30/2009	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
6/30/2012	83,052	2,236,546,345	26,929	0.9
6/30/2013	81,815	2,236,277,489	27,333	1.5
6/30/2014	81,115	2,272,270,287	28,013	2.5

SCHEDULE OF HAZARDOUS CERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
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
6/30/2012	9,130	464,228,923	50,847	2.4
6/30/2013	9,123	461,672,567	50,605	(0.5)
6/30/2014	9,194	479,164,016	52,117	3.0

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	Group Averages Age
Retiree	41,784	$483,416,413	$11,569	69.5
Disability	3,656	39,689,408	10,856	64.1
Beneficiary	4,495	38,474,722	8,559	68.8
Total in CERS	49,935	$561,580,543	$11,246	69.0

** Does not include number and annual benefits for those members included in the hazardous system who are also receiving benefits from the non-hazardous system. There were 2,660 members in the hazardous system also receiving an annual benefit from the non-hazardous System. Total annual benefits for these members is $21,377,283.*

Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages Benefit	Group Averages Age
Retiree	6,294	$170,787,472	$27,135	61.0
Disability	489	7,913,389	16,183	54.9
Beneficiary	863	12,306,971	14,261	56.9
Total in CERS	7,646	$191,007,832	$24,981	60.1

This valuation also includes 79,518 inactive members (76,990 Non-Hazardous and 2,528 Hazardous; of which 10,329 Non-Hazardous are vested and 588 Hazardous are vested).

SECTION III – ASSETS

1. As of June 30, 2014 the total market value of assets amounted to $11,524,163,583 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, 2014

Member Group	Retirement	Insurance	CERS Total
Non-Hazardous	$6,507,300,157	$1,899,557,376	$8,406,857,533
Hazardous	2,082,998,414	1,034,307,636	3,117,306,050
Total	$8,590,298,571	$2,933,865,012	$11,524,163,583

2. The five-year smoothed market related actuarial value of assets used for the current valuation was $10,913,706,421. Schedule B shows the development of the actuarial value of assets as of June 30, 2014. The following table shows the actuarial value of assets allocated among member groups.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	JUNE 30, 2014	JUNE 30, 2013
Retirement		
Non-Hazardous	$ 6,117,133,692	$ 5,637,094,483
Hazardous	1,967,640,027	1,801,691,410
Total	$ 8,084,773,719	$ 7,438,785,893
Insurance		
Non-Hazardous	$ 1,831,199,465	$ 1,628,244,197
Hazardous	997,733,237	892,774,391
Total	$ 2,828,932,702	$ 2,521,018,588
CERS Total		
Non-Hazardous	$ 7,948,333,157	$ 7,265,338,680
Hazardous	2,965,373,264	2,694,465,801
Total	$ 10,913,706,421	$ 9,959,804,481

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, 2014. 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 $15,144,687,996, of which $7,619,970,785 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, $330,825,418 is for the prospective benefits payable on account of inactive members and $7,193,891,793 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 $8,084,773,719 as of June 30, 2014. The difference of $7,059,914,277 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, $1,253,999,387 is the present value of future contributions expected to be made by members, and the balance of $5,805,914,890 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 3.42% of payroll for non-hazardous members and 5.85% 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 $829,340,240. When this amount is subtracted from $5,805,914,890, which is the present value of the total future contributions to be made by the employers, there remains $4,976,574,650 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 8.19% of payroll. For hazardous members, it is recommended that the accrued liability contribution rate payable by the participating employers on account of retirement benefits be set at 14.05% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of $3,655,388,924 for non-hazardous members and $1,321,185,726 for hazardous members over 29 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 0.81% of payroll. For hazardous members, the contribution rate for administrative expenses is determined to be 0.36% 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 $4,963,609,447, of which $1,770,844,562 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, $247,649,919 is for the prospective benefits payable on account of inactive members and $2,945,114,966 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 $2,828,932,702 as of June 30, 2014. The difference of $2,134,676,745 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, $74,671,582 is the present value of future contributions expected to be made by members, and the balance of $2,060,005,163 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 3.09% of payroll for non-hazardous members and 8.05% 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 $778,158,886. When this amount is subtracted from $2,060,005,163, which is the present value of the total future contributions to be made by the employers, there remains $1,281,846,277 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 1.77% of payroll. For hazardous members, it is recommended that the accrued liability contribution rate payable by the participating employers on account of insurance benefits be set at 5.31% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of $785,715,135 for non-hazardous members and $496,131,142 for hazardous members over 29 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 0.02% of payroll for non-hazardous employees and 0.06% 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, 2014 is shown below ($ millions).

Experience Gain/(Loss)
Retirement Benefits

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/13	$ 3,741.8	$ 1,322.5	$ 5,064.3
(2)	Normal cost from last valuation	209.1	66.3	275.4
(3)	Contributions	446.7	157.9	604.6
(4)	Interest accrual: [(1) + (2)] x .0775 - (3) x .03875	288.9	101.5	390.4
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	$ 3,793.1	$ 1,332.4	$ 5,125.5
(6)	Change due to plan amendments	0.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0
(8)	Expected UAAL after changes: (5) + (6) + (7)	$ 3,793.1	$ 1,332.4	$ 5,125.5
(9)	Actual UAAL as of 6/30/14	$ 3,655.4	$ 1,321.2	$ 4,976.6
(10)	Gain/(loss): (8) - (9)	$ 137.7	$ 11.2	$ 148.9
(11)	Accrued liabilities as of 6/30/13	$ 9,378.9	$ 3,124.2	$ 12,503.1
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	1.5 %	0.4 %	1.2 %

**Unfunded actuarial accrued liability*

Experience Gain/(Loss)
Insurance Benefits

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/13	$ 815.6	$ 544.6	$ 1,360.2
(2)	Normal cost from last valuation	74.2	41.1	115.3
(3)	Expected employer contributions	115.1	68.4	183.5
(4)	Interest accrual: [(1) + (2) - (3)] x .0775	60.0	40.1	100.1
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	$ 834.7	$ 557.4	$ 1,392.1
(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)	$ 834.7	$ 557.4	$ 1,392.1
(9)	Actual UAAL as of 6/30/14	$ 785.7	$ 496.1	$ 1,281.8
(10)	Gain/(loss): (8) - (9)	$ 49.0	$ 61.3	$ 110.3
(11)	Accrued liabilities as of 6/30/13	$ 2,443.9	$ 1,437.3	$ 3,881.2
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	2.0 %	4.3 %	2.8 %

* *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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (153.8)	$ (28.2)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(22.3)	(1.3)
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(1.1)	(2.0)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	44.7	9.7
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	63.0	(27.5)
New Members. Additional unfunded accrued liability will produce a loss.	(15.1)	(4.4)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	218.8	41.9
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	1.4	60.8
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	2.0	0.0
Gain (or Loss) During Year From Financial Experience	$ 137.7	$ 49.0
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ 137.7	$ 49.0

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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (72.1)	$ (11.9)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(3.7)	1.3
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.1	(0.2)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	22.0	2.3
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.	7.5	45.0
New Members. Additional unfunded accrued liability will produce a loss.	(8.4)	(3.1)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	63.9	20.4
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	2.8	30.2
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(0.8)	(22.7)
Gain (or Loss) During Year From Financial Experience	$ 11.2	$ 61.3
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ 11.2	$ 61.3

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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (225.8)	$ (40.1)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(26.0)	0.0
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.9)	(2.2)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	66.7	12.0
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.	70.5	17.5
New Members. Additional unfunded accrued liability will produce a loss.	(23.6)	(7.5)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	282.6	62.3
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	4.2	91.0
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	1.2	(22.7)
Gain (or Loss) During Year From Financial Experience	$ 148.9	$ 110.3
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ 148.9	$ 110.3

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 2015/2016 fiscal year.

Required Contribution Rates
Non-Hazardous Retirement

Contribution for		Amount	% of Payroll
A. Normal Cost:			
(1) Service retirement benefits	$	174,339,556	7.67%
(2) Disability benefits		15,049,846	0.63
(3) Survivor benefits		3,093,095	0.12
(4) Total	$	192,482,497	8.42%
B. Member Contributions	$	113,613,514	5.00%
C. Employer Normal Cost: [A(4) - B]	$	78,868,983	3.42%
D. Administrative Expenses	$	18,405,389	0.81%
E. Unfunded Actuarial Accrued Liability Contributions*:			
(1) UAAL Contribution Based on 6/30/13 Valuation:	$	190,870,704	8.40%
(2) Change due to:			
a. Active decrements	$	8,021,412	0.35%
b. Pay increases		(3,229,087)	(0.14)
c. Retiree mortality		(636,522)	(0.03)
d. Investment return		(11,211,173)	(0.49)
e. COLA		0	0.00
f. Assumption Change		0	0.00
g. Other		3,504,749	0.10
h. Total Change	$	(3,550,620)	(0.21)%
(3) UAAL Contribution Based on 6/30/14 Valuation: [E(1) +E(2)h]	$	187,320,084	8.19%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	**$**	284,594,456	12.42%

**Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Hazardous Retirement

Contribution for		Amount	% of Payroll
A. Normal Cost:			
(1) Service retirement benefits	$	62,421,835	12.94%
(2) Disability benefits		3,410,873	0.71
(3) Survivor benefits		927,798	0.20
(4) Total	$	66,760,506	13.85%
B. Member Contributions	$	38,333,121	8.00%
C. Employer Normal Cost: [A(4) - B]	$	28,427,385	5.85%
D. Administrative Expenses	$	1,724,990	0.36%
E. Unfunded Actuarial Accrued Liability Contributions*:			
(1) UAAL Contribution Based on 6/30/13 Valuation:	$	68,903,786	14.38%
(2) Change due to:			
a. Active decrements	$	2,545,805	0.45%
b. Pay increases		(383,074)	(0.08)
c. Retiree mortality		(142,719)	(0.03)
d. Investment return		(3,272,883)	(0.68)
e. COLA		0	0.00
f. Assumption Change		0	0.00
g. Other		53,130	0.01
h. Total Change	$	(1,199,740)	(0.33)%
(3) UAAL Contribution Based on 6/30/14 Valuation: [E(1) +E(2)h]	$	67,704,046	14.05%
F. Total Recommended Employer Contribution Rate: [C+D+E(3)]	**$**	97,856,421	20.26%

**Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Non-Hazardous Insurance

	Contribution for		Amount	% of Payroll
A.	Normal Cost:	$	76,350,560	3.36%
B.	Member Contributions*	$	6,135,130	0.27%
C.	Employer Normal Cost: [A - B]	$	70,215,430	3.09%
D.	Administrative Expenses	$	507,954	0.02%
E.	Unfunded Actuarial Accrued Liability**:	$	40,263,903	1.77%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	**$**	110,987,287	4.88%

**The liabilities are net of retiree contributions toward their healthcare.*
*** Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Hazardous Insurance

	Contribution for		Amount	% of Payroll
A.	Normal Cost:	$	39,560,311	8.26%
B.	Member Contributions*	$	1,006,244	0.21%
C.	Employer Normal Cost: [A - B]	$	38,554,067	8.05%
D.	Administrative Expenses	$	274,768	0.06%
E.	Unfunded Actuarial Accrued Liability**:	$	25,424,197	5.31%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	**$**	64,253,032	13.42%

**The liabilities are net of retiree contributions toward their healthcare.*
*** Based on 29 year amortization of the UAAL from June 30, 2014*

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, 2014

GROUP	NUMBER		
	Non-Hazardous	Hazardous	Total
Retirees and beneficiaries currently receiving benefits	49,935	7,646	57,581
Terminated employees entitled to benefits but not yet receiving benefits	76,990	2,528	79,518
Active Members	81,115	9,194	90,309
Total	208,040	19,368	227,408

* *Does not include number and annual benefits for those members included in the hazardous system who are also receiving benefits from the non-hazardous system. There were 2,660 members in in the hazardous system also receiving an annual benefit from the non-hazardous system.*

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						
6/30/2009	$ 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
6/30/2012	5,547,235,599	9,139,567,695	3,592,332,096	60.7	2,236,546,345	160.6
6/30/2013	5,637,094,483	9,378,876,114	3,741,781,631	60.1	2,236,277,489	167.3
6/30/2014	6,117,133,692	9,772,522,616	3,655,388,924	62.6	2,272,270,287	160.9
Hazardous Members						
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
6/30/2012	1,747,379,297	3,009,992,047	1,262,612,750	58.1	464,228,923	272.0
6/30/2013	1,801,691,410	3,124,205,593	1,322,514,183	57.7	461,672,567	286.5
6/30/2014	1,967,640,027	3,288,825,753	1,321,185,726	59.8	479,164,016	275.7
Total CERS Members						
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
6/30/2012	7,294,614,896	12,149,559,743	4,854,944,847	60.0	2,700,775,268	179.8
6/30/2013	7,438,785,893	12,503,081,707	5,064,295,814	59.5	2,697,950,056	187.7
6/30/2014	8,084,773,719	13,061,348,369	4,976,574,650	61.9	2,751,434,303	180.9

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						
6/30/2009	$ 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
6/30/2012	1,512,853,851	2,370,771,288	857,917,437	63.8	2,236,546,345	38.4
6/30/2013	1,628,244,197	2,443,894,100	815,649,903	66.6	2,236,277,489	36.5
6/30/2014	1,831,199,465	2,616,914,600	785,715,135	70.0	2,272,270,287	34.6
Hazardous Members						
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
6/30/2012	829,040,842	1,364,843,057	535,802,215	60.7	464,228,923	115.4
6/30/2013	892,774,391	1,437,332,817	544,558,426	62.1	461,672,567	118.0
6/30/2014	997,733,237	1,493,864,379	496,131,142	66.8	479,164,016	103.5
Total CERS Members						
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
6/30/2012	2,341,894,693	3,735,614,345	1,393,719,652	62.7	2,700,775,268	51.6
6/30/2013	2,521,018,588	3,881,226,917	1,360,208,329	65.0	2,697,950,056	50.4
6/30/2014	2,828,932,702	4,110,778,979	1,281,846,277	68.8	2,751,434,303	46.6

RETIREMENT BENEFITS

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended	Annual Required Contribution	Actual Contributions	Percentage Contributed
	Non-Hazardous Members		
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
June 30, 2012	261,764,019	275,736,191	105.3
June 30, 2013	294,914,244	294,914,244	100.0
June 30, 2014	324,231,245	324,231,245	100.0
	Hazardous Members		
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
June 30, 2012	83,588,958	89,329,217	106.9
June 30, 2013	120,139,906	120,139,906	100.0
June 30, 2014	115,239,556	115,239,556	100.0
	Total CERS Members		
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
June 30, 2012	345,352,977	365,065,408	105.7
June 30, 2013	415,054,150	415,054,150	100.0
June 30, 2014	438,326,212	438,470,801	100.0

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, 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
June 30, 2012	214,421,008	0	171,924,836	171,924,836	80.2
June 30, 2013	195,560,870	0	159,992,643	159,992,643	81.8
June 30, 2014	130,651,800	0	123,278,028	123,278,028	94.4
		Hazardous Members			
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
June 30, 2012	110,762,577	0	92,563,664	92,563,664	83.6
June 30, 2013	102,010,672	0	85,319,393	85,319,393	83.6
June 30, 2014	74,360,438	0	74,791,619	74,791,619	100.6
		Total CERS Members			
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
June 30, 2012	325,183,585	0	264,488,500	264,488,500	81.3
June 30, 2013	297,571,542	0	245,312,036	245,312,036	82.4
June 30, 2014	205,012,238	0	198,069,647	198,069,647	96.6

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2014. Additional information as of the latest actuarial valuation follows.

Retirement Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2014	6/30/2014
Actuarial cost method	Entry Age	Entry Age
Amortization	Level percent Closed	Level percent Closed
Remaining amortization period	29 years	29 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	6/30/2014	6/30/2014
Actuarial cost method	Entry Age	Entry Age
Amortization	Level percent Closed	Level percent Closed
Remaining amortization period	29 years	29 years
Asset valuation method	5 year smoothed Market	5 year smoothed Market
Medical Trend Assumption (Pre-Medicare)	7.75% - 5.00%	7.75% - 5.00%
Medical Trend Assumption (Post-Medicare)	6.00% - 5.00%	6.00% - 5.00%
Year Ultimate Trend	2020	2020
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, 2014 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2013. 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, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 6,117,133,692	$ 5,637,094,483
Prospective contributions		
Member contributions	$ 925,203,934	$ 922,323,160
Employer normal contributions	585,670,648	597,812,223
Unfunded accrued liability contributions	3,655,388,924	3,741,781,631
Total prospective contributions	$ 5,166,263,506	$ 5,261,917,014
Total assets	$ 11,283,397,198	$ 10,899,011,497
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 5,578,289,754	$ 5,365,093,613
Present value of benefits payable on account of active members	5,410,117,704	5,260,640,661
Present value of benefits payable on account of inactive members	294,989,740	273,277,223
Total liabilities	$ 11,283,397,198	$ 10,899,011,497

VALUATION BALANCE SHEET
RETIREMENT BENEFITS
HAZARDOUS CERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 1,967,640,027	$ 1,801,691,410
Prospective contributions		
Member contributions	$ 328,795,453	$ 320,547,126
Employer normal contributions	243,669,592	240,907,008
Unfunded accrued liability contributions	1,321,185,726	1,322,514,183
Total prospective contributions	$ 1,893,650,771	$ 1,883,968,317
Total assets	$ 3,861,290,798	$ 3,685,659,727
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 2,041,681,031	$ 1,959,817,063
Present value of benefits payable on account of active members	1,783,774,089	1,697,629,764
Present value of benefits payable on account of inactive members	35,835,678	28,212,900
Total liabilities	$ 3,861,290,798	$ 3,685,659,727

VALUATION BALANCE SHEET
RETIREMENT BENEFITS
TOTAL CERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 8,084,773,719	$ 7,438,785,893
Prospective contributions		
Member contributions	$ 1,253,999,387	$ 1,242,870,286
Employer normal contributions	829,340,240	838,719,231
Unfunded accrued liability contributions	4,976,574,650	5,064,295,814
Total prospective contributions	$ 7,059,914,277	$ 7,145,885,331
Total assets	$ 15,144,687,996	$ 14,584,671,224
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 7,619,970,785	$ 7,324,910,676
Present value of benefits payable on account of active members	7,193,891,793	6,958,270,425
Present value of benefits payable on account of inactive members	330,825,418	301,490,123
Total liabilities	$ 15,144,687,996	$ 14,584,671,224

VALUATION BALANCE SHEET
INSURANCE BENEFITS
NON-HAZARDOUS CERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 1,831,199,465	$ 1,628,244,197
Prospective contributions		
Member contributions	$ 61,485,213	$ 51,449,998
Employer normal contributions	512,955,032	564,153,820
Unfunded accrued liability contributions	785,715,135	815,649,903
Total prospective contributions	$ 1,360,155,380	$ 1,431,253,721
Total assets	$ 3,191,354,845	$ 3,059,497,918
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 1,107,884,548	$ 1,000,185,562
Present value of benefits payable on account of active members	1,873,171,963	1,853,898,631
Present value of benefits payable on account of inactive members	210,298,334	205,413,725
Total liabilities	$ 3,191,354,845	$ 3,059,497,918

VALUATION BALANCE SHEET
INSURANCE BENEFITS
HAZARDOUS CERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 997,733,237	$ 892,774,391
Prospective contributions		
Member contributions	$ 13,186,369	$ 10,421,426
Employer normal contributions	265,203,854	296,485,058
Unfunded accrued liability contributions	496,131,142	544,558,426
Total prospective contributions	$ 774,521,365	$ 851,464,910
Total assets	$ 1,772,254,602	$ 1,744,239,301
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 662,960,014	$ 631,247,172
Present value of benefits payable on account of active members	1,071,943,003	1,083,283,970
Present value of benefits payable on account of inactive members	37,351,585	29,708,159
Total liabilities	$ 1,772,254,602	$ 1,744,239,301

VALUATION BALANCE SHEET
INSURANCE BENEFITS
TOTAL CERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 2,828,932,702	$ 2,521,018,588
Prospective contributions		
Member contributions	$ 74,671,582	$ 61,871,424
Employer normal contributions	778,158,886	860,638,878
Unfunded accrued liability contributions	1,281,846,277	1,360,208,329
Total prospective contributions	$ 2,134,676,745	$ 2,282,718,631
Total assets	$ 4,963,609,447	$ 4,803,737,219
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 1,770,844,562	$ 1,631,432,734
Present value of benefits payable on account of active members	2,945,114,966	2,937,182,601
Present value of benefits payable on account of inactive members	247,649,919	235,121,884
Total liabilities	$ 4,963,609,447	$ 4,803,737,219

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

Solvency Test
Retirement Benefits
Non-Hazardous CERS Members

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date	(1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)
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
6/30/2012	1,117,549,337	5,416,932,995	2,605,085,363	5,547,235,599	100.0	81.8	0.0
6/30/2013	1,149,610,832	5,638,370,836	2,590,894,446	5,637,094,483	100.0	79.6	0.0
6/30/2014	1,204,383,085	5,873,279,494	2,694,860,037	6,117,133,692	100.0	83.6	0.0

Solvency Test
Retirement Benefits
Hazardous CERS Members

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date	(1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)
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
6/30/2012	381,672,428	1,889,884,303	738,435,316	1,747,379,297	100.0	72.3	0.0
6/30/2013	390,471,059	1,988,029,963	745,704,571	1,801,691,410	100.0	71.0	0.0
6/30/2014	415,069,629	2,077,516,709	796,239,415	1,967,640,027	100.0	74.7	0.0

Solvency Test
Insurance Benefits
Non-Hazardous CERS Members

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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
6/30/2012	0	1,146,907,750	1,223,863,538	1,512,853,851	100.0	100.0	29.9
6/30/2013	0	1,205,599,287	1,238,294,813	1,628,244,197	100.0	100.0	34.1
6/30/2014	0	1,318,182,882	1,298,731,718	1,831,199,465	100.0	100.0	39.5

Solvency Test
Insurance Benefits
Hazardous CERS Members

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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
6/30/2012	0	575,099,089	789,743,968	829,040,842	100.0	100.0	32.2
6/30/2013	0	660,955,331	776,377,486	892,774,391	100.0	100.0	29.9
6/30/2014	0	700,311,599	793,552,780	997,733,237	100.0	100.0	37.5

SCHEDULE B

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

	Valuation date June 30:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 5,547,235,599	$ 5,637,094,483				
B.	Market Value End of Year	5,780,830,355	6,507,300,157				
C.	Market Value Beginning of Year	5,372,769,813	5,780,830,355				
D.	Cash Flow						
	D1. Contributions	415,691,061	446,690,113				
	D2. Benefit Payments	(566,509,548)	(597,136,388)				
	D3. Administrative Expenses	(17,743,081)	(18,614,538)				
	D4. Investment Expenses	(19,876,309)	(25,695,263)				
	D5. Net	(188,437,877)	(194,756,076)				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	596,498,419	921,225,878				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	429,734,209	467,158,509				
	E4. Amount for Phased-In Recognition	166,764,210	454,067,369				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	33,352,842	90,813,474	0	0	0	0
	F2. First Prior Year	(88,282,845)	33,352,842	90,813,474	0	0	0
	F3. Second Prior Year	103,419,725	(88,282,845)	33,352,842	90,813,474	0	0
	F4. Third Prior Year	68,333,580	103,419,725	(88,282,845)	33,352,842	90,813,474	0
	F5. Fourth Prior Year	(268,260,750)	68,333,580	103,419,725	(88,282,845)	33,352,842	90,813,474
	F6. Total Recognized Investment Gain	(151,437,448)	207,636,776	139,303,196	35,883,471	124,166,316	90,813,474
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 5,637,094,483	$ 6,117,133,692				
H.	Difference Between Market & Actuarial Values	$ 143,735,872	$ 390,166,465	$ 250,863,269	$ 214,979,798	$ 90,813,474	$ 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:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 1,747,379,297	$ 1,801,691,410				
B.	Market Value End of Year	1,830,657,969	2,082,998,414				
C.	Market Value Beginning of Year	1,677,940,479	1,830,657,969				
D.	Cash Flow						
	D1. Contributions	163,001,791	157,870,670				
	D2. Benefit Payments	(182,853,403)	(192,298,833)				
	D3. Administrative Expenses	(1,201,666)	(1,720,998)				
	D4. Investment Expenses	(6,111,057)	(8,220,545)				
	D5. Net	(27,164,335)	(44,369,706)				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	179,881,825	296,710,151				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	135,335,630	148,695,758				
	E4. Amount for Phased-In Recognition	44,546,195	148,014,393				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	8,909,239	29,602,879	0	0	0	0
	F2. First Prior Year	(31,969,450)	8,909,239	29,602,879	0	0	0
	F3. Second Prior Year	34,158,058	(31,969,450)	8,909,239	29,602,879	0	0
	F4. Third Prior Year	20,921,839	34,158,058	(31,969,450)	8,909,239	29,602,879	0
	F5. Fourth Prior Year	(85,878,868)	20,921,839	34,158,058	(31,969,450)	8,909,239	29,602,879
	F6. Total Recognized Investment Gain	(53,859,182)	61,622,565	40,700,726	6,542,668	38,512,118	29,602,879
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 1,801,691,410	$ 1,967,640,027				
H.	Difference Between Market & Actuarial Values	$ 28,966,559	$ 115,358,387	$ 74,657,661	$ 68,114,993	$ 29,602,879	$ 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:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 1,512,853,851	$ 1,628,244,197				
B.	Market Value End of Year	1,633,696,661	1,899,557,376				
C.	Market Value Beginning of Year	1,439,226,170	1,633,696,661				
D.	Cash Flow						
	D1. Contributions	184,523,526	130,842,429				
	D2. Benefit Payments	(132,488,852)	(96,804,206)				
	D3. Administrative Expenses	(4,430,886)	(507,954)				
	D4. Investment Expenses	(4,279,715)	(7,387,530)				
	D5. Net	43,324,073	26,142,739				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	151,146,418	239,717,976				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	117,664,390	135,298,319				
	E4. Amount for Phased-In Recognition	33,482,028	104,419,657				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	6,696,406	20,883,931	0	0	0	0
	F2. First Prior Year	(36,271,274)	6,696,406	20,883,931	0	0	0
	F3. Second Prior Year	37,275,522	(36,271,274)	6,696,406	20,883,931	0	0
	F4. Third Prior Year	12,929,625	37,275,522	(36,271,274)	6,696,406	20,883,931	0
	F5. Fourth Prior Year	(66,228,396)	12,929,625	37,275,519	(36,271,274)	6,696,406	20,883,931
	F6. Total Recognized Investment Gain	(45,598,117)	41,514,210	28,584,582	(8,690,937)	27,580,337	20,883,931
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 1,628,244,197	$ 1,831,199,465				
H.	Difference Between Market & Actuarial Values	$ 5,452,464	$ 68,357,911	$ 39,773,329	$ 48,464,266	$ 20,883,931	$ 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:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 829,040,842	$ 892,774,391				
B.	Market Value End of Year	894,232,297	1,034,307,636				
C.	Market Value Beginning of Year	788,070,813	894,232,297				
D.	Cash Flow						
	D1. Contributions	86,915,544	75,914,753				
	D2. Benefit Payments	(59,940,791)	(60,842,197)				
	D3. Administrative Expenses	(678,523)	(274,768)				
	D4. Investment Expenses	(2,306,365)	(4,075,256)				
	D5. Net	23,989,865	10,722,532				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	82,171,619	129,352,807				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	64,400,832	73,951,673				
	E4. Amount for Phased-In Recognition	17,770,787	55,401,134				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	3,554,157	11,080,227	0	0	0	0
	F2. First Prior Year	(18,373,572)	3,554,157	11,080,227	0	0	0
	F3. Second Prior Year	18,338,164	(18,373,572)	3,554,157	11,080,227	0	0
	F4. Third Prior Year	5,685,665	18,338,164	(18,373,572)	3,554,157	11,080,227	0
	F5. Fourth Prior Year	(33,861,562)	5,685,665	18,338,164	(18,373,572)	3,554,157	11,080,227
	F6. Total Recognized Investment Gain	(24,657,148)	20,284,641	14,598,976	(3,739,188)	14,634,384	11,080,227
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 892,774,391	$ 997,733,237				
H.	Difference Between Market & Actuarial Values	$ 1,457,906	$ 36,574,399	$ 21,975,423	$ 25,714,611	$ 11,080,227	$ 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: 7.50% 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 4.00% per annum:

Service	Annual Rates of Merit & Seniority		Annual Rates of Increase Next Year		
	Non-Hazardous	Hazardous	Base (Economy)	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 Male	Death Female	Disability	Service Retirement**
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** Male	Death** Female	Disability	Service Retirement Service	Service Retirement Rate+	Service Retirement 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.

	Trend	
Fiscal Year Ended	Under Age 65	Age 65 and Over
2015	7.75%	6.00%
2016	6.75%	5.75%
2017	6.25%	5.50%
2018	5.75%	5.25%
2019	5.25%	5.00%
2020 and beyond	5.00%	5.00%

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, 2014				
	Single	Parent Plus	Couple	Family
Total Premiums				
LivingWell CDHP	$733.88	$1,045.20	$1,603.94	$1,785.16
LivingWell PPO	$699.28	$995.94	$1,528.34	$1,701.04
Standard PPO	$656.28	$934.70	$1,434.36	$1,596.42
Standard CDHP	$641.50	$913.66	$1,402.06	$1,560.48

Effective January 1, 2015				
	Single	Parent Plus	Couple	Family
Total Premiums				
LivingWell CDHP	$689.28	$950.62	$1,282.84	$1,432.06
LivingWell PPO	$708.56	$1,007.46	$1,543.58	$1,716.92
Standard PPO	$665.40	$946.88	$1,451.56	$1,615.30
Standard CDHP	$650.92	$913.28	$1,406.14	$1,566.20

MEDICAL INSURANCE RATES
MEDICARE ELIGIBLE

Effective January 1, 2015	
Available Plan	Premium
Kentucky Retirement System Health Plan - Medical Only	$162.00
Kentucky Retirement System Health Plan - Essential	$77.76
Kentucky Retirement System Health Plan - Premium	$244.25

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

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	
Age Requirement	65
Service Requirement	At least one month of non-hazardous duty service credit
Amount	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. 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. If a member has less than 48 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.
Members whose participation began on or after 8/1/2004, but before 9/1/2008	
Age Requirement	65
Service Requirement	At least one month of non-hazardous duty service credit
Amount	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. 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. 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.

Non-Hazardous Normal Retirement (continued):

Members whose participation began on or after 9/1/2008 but before 1/1/2014

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.

Members whose participation began on or after 1/1/2014

Requirement

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

Amount

Each year that a member is an active contributing member to the System, the member and the member's employer will contribute 5.00% and 4.00% of creditable compensation respectively into a hypothetical account. This hypothetical account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year.

Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

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 but before 1/1/2014

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.

Hazardous Normal Retirement (continued):

Members whose participation began on or after 1/1/2014

Age Requirement	60
Service Requirement	At least 60 months of hazardous duty service credit or 25 or more years of service, with no age requirement
Amount	Each year that a member is an active contributing member to the System, the member and the member's employer will contribute 8.00% and 7.50% of creditable compensation respectively into a hypothetical account. This hypothetical account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year. Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

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

Non-Hazardous Early Retirement (continued):

Members whose participation began on or after 9/1/2008 but before 1/1/2014

Requirement	Age 60 with 10 years of service.
Amount	Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65, or 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 but before 1/1/2014

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.

Non-Hazardous Disability (continued):

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 but before 1/1/2014

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.

Members whose participation began on or after 1/1/2014

The hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 20% of the member's monthly final rate of pay or the annuitized hypothetical account into a single life annuity option.

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.

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.

Hazardous Disability (continued):

Members whose participation began on or after 8/1/2004 but before 1/1/2014

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.

Members whose participation began on or after 1/1/2014

The hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 25% of the member's monthly final rate of pay or the annuitized hypothetical account into a single life annuity option.

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. Recontribution of refunds and omitted service purchases are the exception to this rule for service requirement.

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 but before 1/1/2014

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. Recontribution of refunds and omitted service purchases are the exception to this rule for service requirement.

Amount

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

Vesting (continued):

Normal Retirement Age	65 for non-hazardous members and 60 for hazardous members.

Members whose participation began on or after 1/1/2014

Age Requirement	None
Service Requirement	60 months.
Amount	Upon termination the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or the member can elect to leave the hypothetical account balance in the System. If the member does not withdraw the account balance, it will continue to earn 4% interest. Upon reaching normal retirement age the member can apply for retirement and receive the account balance as a lump sum payment or annuitize the account balance into a single life annuity.

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

Members whose participation began before 1/1/2014

Requirement	Eligible for Normal or Early Retirement, or any age in active employment with 60 months service, or any age and not in active employment with at least 144 months of 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.

Members whose participation began on or after 1/1/2014

Requirement	60 months service
Amount	The maximum of the benefit equal to the benefit the member would have received had the member retired on the day before 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 is currently 2.5% shall not be less than 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.

Non-Hazardous Member Contributions (continued):

Members whose participation began on or after 1/1/2014	6% of all creditable compensation, with 5% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Member entitled to a full refund of contributions and interest on the member's portion of the hypothetical 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 is currently 2.5% shall not be less than 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.
Members whose participation began on or after 1/1/2014	9% of all creditable compensation, with 8% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Member entitled to a full refund of contributions and interest on the member's portion of the hypothetical account, however, the 1% contributed to the insurance fund is non-refundable.

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 lifetime 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*
0 – 3 years	0%
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 retirement benefit.*

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 $12.61 per month for each year of earned service for retirees. This amount is shown as of the valuation date and is increased annually 1.5%.

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 lifetime 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*
0 – 3 years	0%
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 retirement benefit.*

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 $18.91 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive $12.61 per month for each year of earned. These amounts are shown as of the valuation date and are increased annually by 1.5%.

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	2009	2010	2011	2012	2013	2014
			Number			
Beginning of Year	37,579	39,756	41,038	43,211	45,304	47,676
Added	3,060	2,565	3,250	3,300	3,570	3,480
Removed	883	1,283	1,077	1,207	1,198	1,221
End of Year	39,756	41,038	43,211	45,304	47,676	49,935
			Annual Allowances*			
Beginning of Year	$ 393,757,510	$ 440,061,418	$ 452,613,550	$ 483,594,068	$ 515,008,361	$ 557,979,192
Added	51,679,136	21,063,111	38,861,094	41,160,717	56,721,012	33,974,542
Removed	5,375,228	8,510,979	7,880,576	9,746,424	13,750,181	8,995,909
End of Year	$ 440,061,418	$ 452,613,550	$ 483,594,068	$ 515,008,361	$ 557,979,192	$ 582,957,825
% Increase in Allowances	11.76%	2.85%	6.84%	6.50%	8.34%	4.48%
Average Annual Allowance	$ 11,069	$ 11,029	$ 11,191	$ 11,368	$ 11,704	$ 11,674

** The annual allowances shown for 2013 and 2014 include allowances for hazardous members who are receiving a portion of benefit from the non-hazardous system.*

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

Year Ending June 30	2009	2010	2011	2012	2013	2014
			Number			
Beginning of Year	5,422	5,808	6,068	6,468	6,878	7,293
Added	650	423	502	483	519	469
Removed	264	163	102	73	104	116
End of Year	5,808	6,068	6,468	6,878	7,293	7,646
			Annual Allowances			
Beginning of Year	$ 127,477,109	$ 139,886,751	$ 146,916,812	$ 160,259,395	$ 173,221,483	$ 182,634,895
Added	13,030,426	8,566,698	14,640,991	14,149,084	10,923,660	9,940,048
Removed	620,784	1,536,637	1,298,408	1,186,996	1,510,248	1,567,111
End of Year	$ 139,886,751	$ 146,916,812	$ 160,259,395	$ 173,221,483	$ 182,634,895	$ 191,007,832
% Increase in Allowances	9.73%	5.03%	9.08%	8.09%	5.43%	4.58%
Average Annual Allowance	$ 24,085	$ 24,212	$ 24,777	$ 25,185	$ 25,042	$ 24,981

Non-Hazardous Retired Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	4,567	$ 4,607,161.27	15,824	$ 11,287,896.88	20,391	$ 15,895,058.15
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	2,477	2,772,719.65	1,257	789,959.20	3,734	3,562,678.85
66-2/3% to Beneficiary	699	1,264,757.11	466	518,453.26	1,165	1,783,210.37
50% to Beneficiary	991	1,570,872.39	1,315	1,510,760.39	2,306	3,081,632.78
Pop-up Option	3,673	5,709,532.36	3,044	3,245,841.12	6,717	8,955,373.48
10 Years Certain	0	0.00	0	0.00	0	0.00
10 Years Certain & Life	1,260	1,248,141.81	2,953	2,181,242.24	4,213	3,429,384.05
Social Security Option						
Age 62 Basic	240	521,904.40	499	587,302.42	739	1,109,206.82
Age 62 Survivorship	573	1,220,696.71	323	396,853.99	896	1,617,550.70
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	583	571,409.36	697	529,025.58	1,280	1,100,434.94
20 Years Certain & Life	417	560,286.77	633	498,098.22	1,050	1,058,384.99
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	112	128,824.17	384	323,085.47	496	451,909.64
PLSO 24 Month Basic	63	43,789.14	257	201,360.81	320	245,149.95
PLSO 36 Month Basic	280	137,097.03	727	330,572.98	1,007	467,670.01
PLSO 12 Month Survivor	154	190,181.76	99	98,531.91	253	288,713.67
PLSO 24 Month Survivor	99	101,533.97	67	45,724.56	166	147,258.53
PLSO 36 Month Survivor	423	269,560.91	284	128,973.89	707	398,534.80
Total	16,611	$ 20,918,468.81	28,829	$ 22,673,682.92	45,440	$ 43,592,151.73

Hazardous Retired Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	910	$ 1,793,714.25	283	$ 443,325.76	1,193	$ 2,237,040.01
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	676	1,331,339.17	33	38,852.42	709	1,370,191.59
66-2/3% to Beneficiary	271	688,261.55	7	16,768.69	278	705,030.24
50% to Beneficiary	418	980,337.98	28	53,283.55	446	1,033,621.53
Pop-up Option	2,641	6,647,157.86	112	217,460.00	2,753	6,864,617.86
10 Years Certain	58	97,467.58	4	5,048.37	62	102,515.95
10 Years Certain & Life	193	399,334.43	51	86,751.71	244	486,086.14
Social Security Option						
Age 62 Basic	104	237,822.65	12	21,240.69	116	259,063.34
Age 62 Survivorship	285	606,964.24	15	37,451.88	300	644,416.12
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	83	155,899.20	14	18,704.35	97	174,603.55
20 Years Certain & Life	136	262,846.88	24	37,464.74	160	300,311.62
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	26	45,792.55	10	12,355.51	36	58,148.06
PLSO 24 Month Basic	22	45,740.67	6	6,336.10	28	52,076.77
PLSO 36 Month Basic	56	86,887.54	22	24,358.25	78	111,245.79
PLSO 12 Month Survivor	59	147,864.89	4	8,080.23	63	155,945.12
PLSO 24 Month Survivor	68	110,391.43	2	2,220.11	70	112,611.54
PLSO 36 Month Survivor	144	217,964.33	6	6,248.86	150	224,213.19
Total	6,150	$ 13,855,787.20	633	$ 1,035,951.22	6,783	$ 14,891,738.42

Non-Hazardous Beneficiary Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	14	$ 4,563.80	23	$ 11,542.41	37	$ 16,106.21
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	422	249,237.29	1,435	953,296.79	1,857	1,202,534.08
66-2/3% to Beneficiary	1	905.18	2	1,913.46	3	2,818.64
50% to Beneficiary	117	43,139.97	343	192,804.04	460	235,944.01
Pop-up Option	175	125,698.89	542	517,345.67	717	643,044.56
10 Years Certain	118	81,477.17	145	113,317.68	263	194,794.85
10 Years Certain & Life	63	38,670.84	205	157,037.25	268	195,708.09
Social Security Option						
Age 62 Basic	0	0.00	0	0.00	0	0.00
Age 62 Survivorship	27	18,130.48	131	183,690.79	158	201,821.27
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	1	206.92	1	206.92
Dependent Child	50	35,735.33	64	54,629.55	114	90,364.88
Refund	1	531.00	8	4,679.23	9	5,210.23
15 Years Certain & Life	40	29,994.68	53	43,496.12	93	73,490.80
20 Years Certain & Life	41	27,581.78	69	65,660.55	110	93,242.33
5 Years Certain	102	67,208.00	94	59,008.59	196	126,216.59
PLSO 12 Month Basic	0	0.00	1	395.49	1	395.49
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	1	149.07	1	152.38	2	301.45
PLSO 12 Month Survivor	7	4,283.80	35	36,214.84	42	40,498.64
PLSO 24 Month Survivor	8	7,981.89	20	15,847.95	28	23,829.84
PLSO 36 Month Survivor	37	15,337.55	99	44,360.41	136	59,697.96
Total	1,224	$ 750,626.72	3,271	$ 2,455,600.12	4,495	$ 3,206,226.84

Hazardous Beneficiary Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	17	$ 9,241.97	28	$ 23,513.53	45	$ 32,755.50
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	30	20,953.04	186	242,078.53	216	263,031.57
66-2/3% to Beneficiary	5	2,853.43	43	59,849.17	48	62,702.60
50% to Beneficiary	7	3,118.85	61	54,580.74	68	57,699.59
Pop-up Option	49	34,171.69	189	293,368.46	238	327,540.15
10 Years Certain	11	13,414.79	17	14,379.36	28	27,794.15
10 Years Certain & Life	5	2,697.04	4	983.68	9	3,680.72
Social Security Option						
Age 62 Basic	0	0.00	1	310.13	1	310.13
Age 62 Survivorship	96	160,183.05	5	7,344.23	101	167,527.28
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	3	3,287.07	3	3,287.07
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	4	1,594.48	16	7,843.83	20	9,438.31
15 Years Certain & Life	7	4,623.63	2	1,273.74	9	5,897.37
20 Years Certain & Life	6	3,335.32	11	9,671.26	17	13,006.58
5 Years Certain	2	3,215.96	3	5,161.49	5	8,377.45
PLSO 12 Month Basic	0	0.00	1	2,192.42	1	2,192.42
PLSO 24 Month Basic	0	0.00	1	1,466.49	1	1,466.49
PLSO 36 Month Basic	2	561.73	3	1,618.98	5	2,180.71
PLSO 12 Month Survivor	1	786.37	4	2,794.70	5	3,581.07
PLSO 24 Month Survivor	2	2,696.58	9	6,630.00	11	9,326.58
PLSO 36 Month Survivor	9	5,130.19	23	18,654.98	32	23,785.17
Total	253	$ 268,578.12	610	$ 757,002.79	863	$ 1,025,580.91

Non-Hazardous Members

Retired and Beneficiary Information June 30, 2014
Tabulated by Attained Ages

	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
Attained Age	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	19	$ 387,872	59	$ 614,632	140	$ 841,036	218	$ 1,843,540
45-49	270	$ 6,845,034	126	$ 1,523,209	54	$ 412,232	450	$ 8,780,475
50-54	1,210	$ 29,414,185	313	$ 4,089,039	121	$ 1,359,890	1,644	$ 34,863,114
55-59	3,686	$ 69,405,223	615	$ 7,163,189	247	$ 2,859,249	4,548	$ 79,427,661
60-64	7,235	$ 102,299,214	778	$ 9,047,287	475	$ 5,114,775	8,488	$ 116,461,276
65-69	9,888	$ 108,974,912	754	$ 8,035,348	583	$ 6,266,685	11,225	$ 123,276,945
70-74	7,979	$ 76,151,899	535	$ 5,319,061	634	$ 5,884,796	9,148	$ 87,355,756
75-79	5,661	$ 48,677,450	313	$ 2,703,794	576	$ 5,408,139	6,550	$ 56,789,383
80-84	3,343	$ 25,796,861	138	$ 1,082,844	579	$ 4,543,114	4,060	$ 31,422,819
85-89	1,757	$ 11,619,833	16	$ 78,018	486	$ 2,935,158	2,259	$ 14,633,009
90 & Over	736	$ 3,843,930	9	$ 32,987	600	$ 2,849,648	1,345	$ 6,726,565
Totals	41,784	$ 483,416,413	3,656	$ 39,689,408	4,495	$ 38,474,722	49,935	$ 561,580,543

Hazardous Members

Retired and Beneficiary Information June 30, 2014
Tabulated by Attained Ages

	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
Attained Age	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	105	$ 3,335,555	77	$ 1,209,092	186	$ 1,033,932	368	$ 5,578,579
45-49	597	$ 18,719,598	66	$ 1,148,762	26	$ 261,809	689	$ 20,130,169
50-54	934	$ 29,757,571	98	$ 1,756,856	47	$ 670,070	1,079	$ 32,184,497
55-59	1,105	$ 30,960,507	90	$ 1,411,452	67	$ 893,278	1,262	$ 33,265,237
60-64	1,354	$ 39,023,086	86	$ 1,306,354	99	$ 1,826,198	1,539	$ 42,155,638
65-69	1,133	$ 26,562,909	46	$ 729,524	114	$ 1,977,203	1,293	$ 29,269,636
70-74	638	$ 13,058,033	16	$ 216,812	121	$ 2,466,035	775	$ 15,740,880
75-79	277	$ 5,948,930	4	$ 66,573	95	$ 1,714,970	376	$ 7,730,473
80-84	105	$ 2,345,402	5	$ 48,044	73	$ 987,855	183	$ 3,381,301
85-89	41	$ 983,360	1	$ 19,920	25	$ 349,590	67	$ 1,352,870
90 & Over	5	$ 92,521			10	$ 126,031	15	$ 218,552
Totals	6,294	$ 170,787,472	489	$ 7,913,389	863	$ 12,306,971	7,646	$ 191,007,832

Total Non-Hazardous Active Members as of June 30, 2014
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	109								109
Avg Pay	$11,688								$11,688
20-24	1,985	23							2,008
Avg Pay	$18,316	$24,557							$18,388
25-29	3,571	777	14						4,362
Avg Pay	$23,009	$30,566	$37,254						$24,401
30-34	3,522	1,718	612	18					5,870
Avg Pay	$22,530	$32,184	$36,147	$35,567					$26,815
35-39	3,575	2,085	1,392	474	21			1	7,548
Avg Pay	$21,963	$29,919	$36,881	$40,968	$42,969			$20,383	$28,163
40-44	3,734	2,672	2,042	1,184	331	27	10	1	10,001
Avg Pay	$22,190	$27,668	$33,317	$41,745	$45,997	$57,302	$70,918	$45,895	$29,175
44-49	3,275	2,839	2,578	1,685	745	158	100	40	11,420
Avg Pay	$22,189	$26,490	$29,479	$35,241	$44,030	$49,073	$54,107	$66,802	$29,062
50-54	3,005	2,764	3,166	2,516	1,318	325	204	129	13,427
Avg Pay	$22,694	$27,175	$28,796	$30,663	$38,479	$44,714	$49,564	$57,115	$29,370
55-59	2,460	2,301	2,588	2,450	1,718	364	250	207	12,338
Avg Pay	$22,444	$26,523	$29,338	$30,115	$34,192	$40,230	$45,384	$56,673	$29,374
60-64	1,791	1,794	1,624	1,631	1,203	307	198	150	8,698
Avg Pay	$20,534	$26,581	$29,507	$30,905	$32,067	$34,729	$42,120	$53,843	$28,563
65-69	784	803	732	579	353	101	104	63	3,519
Avg Pay	$17,371	$22,406	$27,087	$28,387	$30,885	$34,204	$37,062	$47,203	$25,308
70 & over	355	485	409	280	143	50	41	52	1,815
Avg Pay	$14,901	$19,712	$21,842	$24,585	$27,191	$29,753	$36,520	$42,017	$21,887
Totals	28,166	18,261	15,157	10,817	5,832	1,332	907	643	81,115
Avg Pay	$21,738	$27,518	$30,467	$32,682	$36,309	$40,601	$45,500	$54,545	$28,013

Total Hazardous Active Members as of June 30, 2014
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	267	2							269
Avg Pay	$33,859	$46,798							$33,955
25-29	957	276	2						1,235
Avg Pay	$40,710	$47,055	$42,340						$42,131
30-34	529	817	215	3					1,564
Avg Pay	$42,720	$50,439	$53,327	$57,971					$48,240
35-39	253	522	668	265	7				1,715
Avg Pay	$41,532	$50,267	$55,574	$60,828	$73,778				$52,773
40-44	160	324	576	733	135	16	5		1,949
Avg Pay	$41,527	$48,956	$54,513	$62,632	$69,606	$80,915	$77,364		$56,898
44-49	79	163	282	352	237	65	28	6	1,212
Avg Pay	$38,241	$46,530	$54,331	$58,982	$69,319	$72,778	$77,740	$95,581	$58,249
50-54	42	108	128	204	148	42	38	13	723
Avg Pay	$37,376	$47,777	$50,749	$57,873	$66,016	$69,059	$77,270	$84,502	$57,728
55-59	27	53	60	63	58	18	13	22	314
Avg Pay	$37,277	$48,938	$51,358	$55,258	$58,496	$76,581	$66,896	$79,754	$55,918
60-64	7	38	54	22	17	7	5	11	161
Avg Pay	$36,894	$42,917	$45,886	$60,163	$70,478	$54,158	$66,501	$83,978	$52,944
65-69	1	8	12	5	5			1	32
Avg Pay	$30,180	$36,296	$51,293	$67,312	$61,859			$78,773	$51,897
70 & over	1	4	5	5	2		1	2	20
Avg Pay	$33,686	$30,060	$46,541	$68,163	$26,316		$62,900	$115,395	$53,688
Totals	2,323	2,315	2,002	1,652	609	148	90	55	9,194
Avg Pay	$40,323	$49,145	$54,095	$60,686	$67,430	$72,184	$75,165	$84,726	$52,117

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Report on the Annual Valuation of the Kentucky Employees Retirement System

Prepared as of June 30, 2014

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The experience and dedication you deserve

November 12, 2014

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 date of the valuation was June 30, 2014.

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.

Since the previous valuation, the cash balance plan (a provision of Senate Bill 2) for members whose participation date is on or after January 1, 2014 has been reflected in this valuation.

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 are members of the American Academy of Actuaries and meet 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.

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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, MAAA, EA
Chief Executive Officer

Todd B. Green ASA, FCA, MAAA
Principal and Consulting Actuary

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

TJC/TBG/AB:kc

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REPORT ON THE ANNUAL VALUATION OF THE KENTUCKY EMPLOYEES RETIREMENT SYSTEM

PREPARED AS OF JUNE 30, 2014

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2014, 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	
	6/30/2014	6/30/2013	6/30/2014	6/30/2013	6/30/2014	6/30/2013
Contributions for next fiscal year:						
Retirement	33.57%	30.84%	17.09%	16.37%		
Insurance	7.74	7.93	7.12	9.97	N/A	N/A
Total	41.31%	38.77%	24.21%	26.34%		
Funded status as of valuation date:						
Retirement						
Actuarial accrued liability	$11,550,110,224	$11,386,602,159	$816,850,063	$783,980,594	$12,366,960,287	$12,170,582,752
Actuarial value of assets	2,423,956,716	2,636,122,852	527,897,261	505,656,808	2,951,853,977	3,141,779,660
Unfunded liability on actuarial value of assets	9,126,153,508	8,750,479,307	288,952,802	278,323,786	9,415,106,310	9,028,803,092
Funded ratio on actuarial value of assets	20.99%	23.15%	64.63%	64.50%	23.87%	25.81%
Market value of assets	$2,560,419,519	$2,747,428,086	$559,504,340	$513,162,166	$3,119,923,859	$3,260,590,252
Unfunded liability on market value of assets	8,989,690,705	8,639,174,073	257,345,723	270,818,428	9,247,036,428	8,909,992,500
Funded ratio on market value of assets	22.17%	24.13%	68.50%	65.46%	25.23%	26.79%
Insurance						
Actuarial accrued liability	$2,226,759,925	$2,128,754,134	$396,986,820	$385,517,675	$2,623,746,745	$2,514,271,809
Actuarial value of assets	621,236,646	497,584,327	419,395,867	370,774,403	1,040,632,513	868,358,730
Unfunded liability on actuarial value of assets	1,605,523,279	1,631,169,807	(22,409,047)	14,743,272	1,583,114,232	1,645,913,079
Funded ratio on actuarial value of assets	27.90%	23.37%	105.64%	96.18%	39.66%	34.54%
Market value of assets	$664,775,708	$509,364,080	$435,503,976	$374,309,576	$1,100,279,684	$883,673,656
Unfunded liability on market value of assets	1,561,984,217	1,619,390,054	(38,517,156)	11,208,099	1,523,467,061	1,630,598,153
Funded ratio on market value of assets	29.85%	23.93%	109.70%	97.09%	41.94%	35.15%
Demographic data as of valuation date:						
Number of retired participants and beneficiaries	41,223	40,194	3,620	3,430	44,843	43,624
Number of vested former members	7,891	8,189	365	368	8,256	8,557
Number of former members due a refund	38,748	35,857	3,643	3,117	42,391	38,974
Number of active members	40,365	42,226	4,024	4,127	44,389	46,353
Total salary	$1,577,496,447	$1,644,408,698	$129,076,038	$132,015,368	$1,706,572,485	$1,776,424,066
Average salary	$39,081	$38,943	$32,077	$31,988	$38,446	$38,324

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 and losses 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, the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky, has made the following changes for plan year 2015:
    - The new medical plan administrator is Anthem Blue Cross Blue Shield.
    - The new prescription drug plan administrator is CVS/caremark and changes were made to the prescription drug formulary.
    - Out-of-pocket maximums are now tracked separately for medical and prescription drug coverage. Prescription drug coverage is now capped.
    - The LivingWell PPO plan has lowered co-pays for mental health and allergy injections.
5. The following change has been reflected in this valuation in accordance with Senate Bill 2:
    - The cash balance plan for members whose participation date is on or after January 1, 2014 has been reflected in this valuation.
6. Since the previous valuation, Seven Counties Mental Health Services no longer participates in the KERS Non-Hazardous System as an active contributing employer. As of July 1, 2013 there were 926 active members. Of the 926 members, those that were vested or who were eligible to retire will continue as members of the System.
7. 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 tables summarize the membership of the system as of June 30, 2014 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	40,365	$1,577,496,447	$39,081	44.8	10.5
Hazardous	4,024	129,076,038	32,077	40.6	7.4
Total in KERS	44,389	$1,706,572,485	$38,446	44.4	10.2

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
6/30/2009	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)
6/30/2012	42,196	1,644,896,681	38,982	4.9
6/30/2013	42,226	1,644,408,698	38,943	(0.1)
6/30/2014	40,365	1,577,496,447	39,081	0.4

SCHEDULE OF HAZARDOUS KERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
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)
6/30/2012	4,086	131,976,754	32,300	4.2
6/30/2013	4,127	132,015,368	31,988	(1.0)
6/30/2014	4,024	129,076,038	32,077	0.3

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	Group Averages Age
Retiree	34,965	$783,372,355	$22,404	67.7
Disability	1,904	24,300,056	12,763	64.6
Beneficiary	4,354	58,374,245	13,407	71.1
Total in KERS	41,223	$866,046,656	$21,009	67.9

** Does not include number and annual benefits for those members included in the hazardous system who are also receiving benefits from the non-hazardous system. There were 2,196 members in the hazardous system also receiving an annual benefit from the non-hazardous System. Total annual benefits for these members is $19,537,677.*

Hazardous Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages Benefit	Group Averages Age
Retiree	3,114	$49,675,429	$15,952	63.1
Disability	145	1,269,006	8,752	58.1
Beneficiary	361	3,327,283	9,217	65.1
Total in KERS	3,620	$54,271,718	$14,992	63.1

This valuation also includes 50,647 inactive members (46,639 Non-Hazardous and 4,008 Hazardous; of which 7,891 Non-Hazardous are vested and 365 Hazardous are vested).

SECTION III – ASSETS

1. As of June 30, 2014 the total market value of assets amounted to $4,220,203,543 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, 2014

Member Group	Retirement	Insurance	KERS Total
Non-Hazardous	$2,560,419,519	$664,775,708	$3,225,195,227
Hazardous	559,504,340	435,503,976	995,008,316
Total	$3,119,923,859	$1,100,279,684	$4,220,203,543

2. The five-year smoothed market related actuarial value of assets used for the current valuation was $3,992,486,490. Schedule B shows the development of the actuarial value of assets as of June 30, 2014. The following table shows the actuarial value of assets allocated among member groups.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	June 30, 2014	June 30, 2013
Retirement		
Non-Hazardous	$ 2,423,956,716	$ 2,636,122,852
Hazardous	527,897,261	505,656,808
Total	$ 2,951,853,977	$ 3,141,779,660
Insurance		
Non-Hazardous	$ 621,236,646	$ 497,584,327
Hazardous	419,395,867	370,774,403
Total	$ 1,040,632,513	$ 868,358,730
KERS Total		
Non-Hazardous	$ 3,045,193,362	$ 3,133,707,179
Hazardous	947,293,128	876,431,211
Total	$ 3,992,486,490	$ 4,010,138,390

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, 2014. 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 $13,670,960,454, of which $9,123,837,536 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, $328,086,360 is for the prospective benefits payable on account of present inactive members, and $4,219,036,558 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 $2,951,853,977 as of June 30, 2014. The difference of $10,719,106,477 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, $796,664,983 is the present value of future contributions expected to be made by members, and the balance of $9,922,441,494 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 3.40% of payroll for non-hazardous members and 5.00% 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 $507,335,184. When this amount is subtracted from $9,922,441,494, which is the present value of the total future contributions to be made by the employers, there remains $9,415,106,310 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 29.47% 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 11.40% of payroll. These rates are sufficient to liquidate the unfunded accrued liability of $9,126,153,508 for non-hazardous members and $288,952,802 for hazardous members over 29 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 0.70% of payroll for non-hazardous members and 0.69% 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 $3,054,947,815, of which $1,430,134,011 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, $201,947,963 is for the prospective benefits payable on account of present inactive members, and $1,422,865,841 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 $1,040,632,513 as of June 30, 2014. The difference of $2,014,315,302 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, $48,363,395 is the present value of future contributions expected to be made by members, and the balance of $1,965,951,907 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 2.47% of payroll for non-hazardous members and 7.95% 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 $382,837,675. When this amount is subtracted from $1,965,951,907, which is the present value of the total future contributions to be made by the employers, there remains $1,583,114,232 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 5.22% 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 (0.89%) of payroll. These rates are sufficient to liquidate the unfunded accrued liability of $1,605,523,279 for non-hazardous members and $(22,409,047) for hazardous members over 29 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 0.05% of payroll for non-hazardous members and 0.06% of payroll for hazardous members.

SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain (loss) for the year ended June 30, 2014 is shown below ($ millions).

Experience Gain/(Loss)
Retirement Benefits

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/13	$ 8,750.5	$ 278.3	$ 9,028.8
(2)	Normal cost from last valuation	150.2	18.2	168.4
(3)	Contributions	389.8	23.7	413.5
(4)	Interest accrual: [(1) + (2)] x .0775 - (3) x .03875	674.7	22.1	696.8
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	$ 9,185.6	$ 294.9	$ 9,480.5
(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)	$ 9,185.6	$ 294.9	$ 9,480.5
(9)	Actual UAAL as of 6/30/14	$ 9,126.2	$ 289.0	$ 9,415.2
(10)	Gain/(loss): (8) - (9)	$ 59.4	$ 5.9	$ 65.3
(11)	Accrued liabilities as of 6/30/13	$ 11,386.6	$ 784.0	$ 12,170.6
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	0.5%	0.8%	0.5%

**Unfunded actuarial accrued liability*

Experience Gain/(Loss)
Insurance Benefits

		Non-Hazardous Group	Hazardous Group	Total
(1)	UAAL* as of 6/30/13	$ 1,631.2	$ 14.7	$ 1,645.9
(2)	Normal cost from last valuation	44.2	12.2	56.4
(3)	Expected employer contributions	126.1	12.9	139.0
(4)	Interest accrual: [(1) + (2) - (3)] x .0775	120.1	1.1	121.2
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	$ 1,669.4	$ 15.1	$ 1,684.5
(6)	Change due to plan amendments	0.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0
(8)	Expected UAAL after changes: (5) + (6) + (7)	$ 1,669.4	$ 15.1	$ 1,684.5
(9)	Actual UAAL as of 6/30/14	$ 1,605.5	$ (22.4)	$ 1,583.1
(10)	Gain/(loss): (8) - (9)	$ 63.9	$ 37.5	$ 101.4
(11)	Accrued liabilities as of 6/30/13	$ 2,128.8	$ 385.5	$ 2,514.3
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year	3.0%	9.7%	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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (228.9)	$ (33.7)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(8.1)	0.0
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.5)	(1.1)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	92.0	5.0
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.	68.9	(13.5)
New Members. Additional unfunded accrued liability will produce a loss.	(11.4)	(2.2)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	128.8	24.1
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	19.8	59.3
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(1.1)	26.0
Gain (or Loss) During Year From Financial Experience	$ 59.4	$ 63.9
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ 59.4	$ 63.9

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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (34.7)	$ (3.8)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.8)	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	(0.1)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	20.0	3.1
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.	7.0	7.1
New Members. Additional unfunded accrued liability will produce a loss.	(7.2)	(4.3)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	18.8	10.6
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	4.0	21.0
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(1.2)	3.2
Gain (or Loss) During Year From Financial Experience	$ 5.9	$ 37.5
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ 5.9	$ 37.5

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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (263.6)	$ (37.5)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(8.9)	0.7
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.4)	(1.2)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	112.0	8.1
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.	75.9	(6.4)
New Members. Additional unfunded accrued liability will produce a loss.	(18.6)	(6.5)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	147.6	34.7
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	23.8	80.3
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(2.4)	29.2
Gain (or Loss) During Year From Financial Experience	$ 65.3	$ 101.4
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ 65.3	$ 101.4

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. These rates are for informational purposes only.

Required Contribution Rates
Non-Hazardous Retirement

	Contribution for		Amount	% of Payroll
A.	Normal Cost:			
	(1) Service retirement benefits	$	121,445,387	7.65%
	(2) Disability benefits		9,952,302	0.63
	(3) Survivor benefits		1,963,415	0.12
	(4) Total	$	133,361,104	8.40%
B.	Member Contributions	$	78,874,822	5.00%
C.	Employer Normal Cost: [A(4) - B]	$	54,486,282	3.40%
D.	Administrative Expenses	$	11,144,929	0.70%
E.	Unfunded Actuarial Accrued Liability Contributions*:			
	(1) UAAL Contribution Based on 6/30/13 Valuation:	$	439,158,973	26.71%
	(2) Change due to:			
	a. Active decrements	$	11,711,442	0.74%
	b. Pay increases		(4,712,685)	(0.30)
	c. Retiree mortality		(6,600,694)	(0.42)
	d. Investment return		584,640	0.04
	e. COLA		0	0.00
	f. Assumption Change		0	0.00
	g. Other		27,527,257	2.70
	h. Total Change	$	28,509,960	2.76%
	(3) UAAL Contribution Based on 6/30/14 Valuation: [E(1) +E(2)h]	$	467,668,933	29.47%
F.	Total Recommended Employer Contribution Rate: [C+D+E(3)]	$	533,300,144	33.57%

**Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Hazardous Retirement

	Contribution for		Amount	% of Payroll
A.	Normal Cost:			
	(1) Service retirement benefits	$	15,562,214	12.01%
	(2) Disability benefits		1,028,338	0.77
	(3) Survivor benefits		289,292	0.22
	(4) Total	$	16,879,844	13.00%
B.	Member Contributions	$	10,326,083	8.00%
C.	Employer Normal Cost: [A(4) - B]	$	6,553,761	5.00%
D.	Administrative Expenses	$	890,625	0.69%
E.	Unfunded Actuarial Accrued Liability Contributions*:			
	(1) UAAL Contribution Based on 6/30/13 Valuation:	$	13,968,193	10.58%
	(2) Change due to:			
	a. Active decrements	$	1,662,184	1.29%
	b. Pay increases		(1,024,817)	(0.79)
	c. Retiree mortality		(961,677)	(0.75)
	d. Investment return		369,037	0.29
	e. COLA		0	0.00
	f. Assumption Change		0	0.00
	g. Other		794,441	0.78
	h. Total Change	$	839,168	0.82%
	(3) UAAL Contribution Based on 6/30/14 Valuation: [E(1) +E(2)h]	$	14,807,361	11.40%
F.	Total Recommended Employer Contribution Rate: [C+D+E(3)]	$	22,251,747	17.09%

**Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Non-Hazardous Insurance

	Contribution for		Amount	% of Payroll
A.	Normal Cost:	$	42,674,391	2.71%
B.	Member Contributions*	$	3,785,991	0.24%
C.	Employer Normal Cost: [A - B]	$	38,888,400	2.47%
D.	Administrative Expenses	$	735,604	0.05%
E.	Unfunded Actuarial Accrued Liability**:	$	82,274,899	5.22%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	$	121,898,903	7.74%

**The liabilities are net of retiree contributions towards their healthcare.*
*** Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Hazardous Insurance

	Contribution for		Amount	% of Payroll
A.	Normal Cost:	$	10,721,419	8.31%
B.	Member Contributions*	$	464,674	0.36%
C.	Employer Normal Cost: [A - B]	$	10,256,745	7.95%
D.	Administrative Expenses	$	77,471	0.06%
E.	Unfunded Actuarial Accrued Liability**:	$	(1,148,350)	(0.89%)
F.	Total Recommended Employer Contribution Rate: [C+D+E]	$	9,185,866	7.12%

**The liabilities are net of retiree contributions towards their healthcare.*
*** Based on 29 year amortization of the UAAL from June 30, 2014*

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, 2014

GROUP	NUMBER		
	Non-Hazardous*	Hazardous	Total
Retirees and beneficiaries currently receiving benefits	41,223	3,620	44,843
Terminated employees entitled to benefits but not yet receiving benefits	46,639	4,008	50,647
Active Members	40,365	4,024	44,389
Total	128,227	11,652	139,879

** Does not include members included in the hazardous system who are also receiving benefits from the non-hazardous system. There were 2,196 members in in the hazardous system also receiving an annual benefit from the non-hazardous System*

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						
6/30/2009	$ 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
6/30/2012	3,101,316,738	11,361,048,136	8,259,731,398	27.3	1,644,896,681	502.1
6/30/2013	2,636,122,852	11,386,602,159	8,750,479,307	23.2	1,644,408,698	532.1
6/30/2014	2,423,956,716	11,550,110,224	9,126,153,508	21.0	1,577,496,447	578.5
Hazardous Members						
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
6/30/2012	497,226,296	752,699,457	255,473,161	66.1	131,976,754	193.6
6/30/2013	505,656,808	783,980,594	278,323,786	64.5	132,015,368	210.8
6/30/2014	527,897,261	816,850,063	288,952,802	64.6	129,076,038	223.9
Total KERS Members						
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
6/30/2012	3,598,543,034	12,113,747,593	8,515,204,559	29.7	1,776,873,435	479.2
6/30/2013	3,141,779,660	12,170,582,752	9,028,803,092	25.8	1,776,424,066	508.3
6/30/2014	2,951,853,977	12,366,960,287	9,415,106,310	23.9	1,706,572,485	551.7

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						
6/30/2009	$ 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
6/30/2012	446,080,511	3,125,330,157	2,679,249,646	14.3	1,644,896,681	162.9
6/30/2013*	497,584,327	2,128,754,134	1,631,169,807	23.4	1,644,408,698	99.2
6/30/2014	621,236,646	2,226,759,925	1,605,523,279	27.9	1,577,496,447	101.8
Hazardous Members						
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
6/30/2012	345,573,948	384,592,406	39,018,458	89.9	131,976,754	29.6
6/30/2013	370,774,403	385,517,675	14,743,272	96.2	132,015,368	11.2
6/30/2014	419,395,867	396,986,820	(22,409,047)	105.6	129,076,038	(17.4)
Total KERS Members						
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
6/30/2012	791,654,459	3,509,922,563	2,718,268,104	22.6	1,776,873,435	153.0
6/30/2013	868,358,730	2,514,271,809	1,645,913,079	34.5	1,776,424,066	92.7
6/30/2014	1,040,632,513	2,623,746,745	1,583,114,232	39.7	1,706,572,485	92.8

** Discount rate changed from 4.50% to 7.75%*

RETIREMENT BENEFITS

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended	Annual Required Contribution	Actual Contributions	Percentage Contributed
	Non-Hazardous Members		
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
June 30, 2012	441,094,470	214,786,132	48.7
June 30, 2013	485,395,934	280,874,152	57.9
June 30, 2014	520,764,995	296,836,047	57.0
	Hazardous Members		
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
June 30, 2012	20,264,754	20,808,540	102.7
June 30, 2013	21,501,581	27,333,681	127.1
June 30, 2014	13,570,322	11,670,477	86%
	Total KERS Members		
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
June 30, 2012	461,359,224	235,594,672	51.1
June 30, 2013	506,905,515	308,207,833	60.8
June 30, 2014	534,335,317	308,506,524	57.7

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, 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
June 30, 2012	297,904,224	0	156,057,216	156,057,216	52.4
June 30, 2013	286,143,134	0	165,330,557	165,330,557	57.8
June 30, 2014	208,880,813	0	166,609,592	166,609,592	79.8
		Hazardous Members			
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
June 30, 2012	28,326,206	0	24,538,087	24,538,087	86.6
June 30, 2013	26,252,911	0	25,682,403	25,682,403	97.8
June 30, 2014	15,627,018	0	23,873,967	23,873,967	152.8
		Total KERS Members			
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
June 30, 2012	326,230,430	0	180,595,303	180,595,303	55.4
June 30, 2013	312,396,045	0	191,012,960	191,012,960	61.1
June 30, 2014	224,507,831	0	190,483,559	190,483,559	84.8

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2014. Additional information as of the latest actuarial valuation follows.

Retirement Benefits

	Non-Hazardous Members	Hazardous Members
Valuation date	6/30/2014	6/30/2014
Actuarial cost method	Entry Age	Entry Age
Amortization	Level Percent Closed	Level Percent Closed
Remaining amortization period	29 years	29 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	6/30/2014	6/30/2014
Actuarial cost method	Entry Age	Entry Age
Amortization	Level Percent Closed	Level Percent Closed
Remaining amortization period	29 years	29 years
Asset valuation method	5 Year Smoothed Market	5 Year Smoothed Market
Medical Trend Assumption (Pre-Medicare)	7.75% - 5.00%	7.75% - 5.00%
Medical Trend Assumption (Post-Medicare)	6.00% - 5.00%	6.00% - 5.00%
Year Ultimate Trend	2020	2020
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, 2014 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2013. 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, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 2,423,956,716	$ 2,636,122,852
Prospective contributions		
Member contributions	$ 709,583,930	$ 748,898,753
Employer normal contributions	448,523,568	483,225,184
Unfunded accrued liability contributions	9,126,153,508	8,750,479,307
Total prospective contributions	$ 10,284,261,006	$ 9,982,603,244
Total assets	$ 12,708,217,722	$ 12,618,726,096
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 8,564,988,130	$ 8,457,981,441
Present value of benefits payable on account of active members	3,837,525,126	3,909,402,474
Present value of benefits payable on account of inactive members	305,704,466	251,342,181
Total liabilities	$ 12,708,217,722	$ 12,618,726,096

VALUATION BALANCE SHEET
RETIREMENT BENEFITS
HAZARDOUS KERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 527,897,261	$ 505,656,808
Prospective contributions		
Member contributions	$ 87,081,053	$ 90,536,604
Employer normal contributions	58,811,616	59,622,322
Unfunded accrued liability contributions	288,952,802	278,323,786
Total prospective contributions	$ 434,845,471	$ 428,482,712
Total assets	$ 962,742,732	$ 934,139,520
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 558,849,406	$ 528,180,683
Present value of benefits payable on account of active members	381,511,432	388,542,986
Present value of benefits payable on account of inactive members	22,381,894	17,415,851
Total liabilities	$ 962,742,732	$ 934,139,520

VALUATION BALANCE SHEET
RETIREMENT BENEFITS
TOTAL KERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 2,951,853,977	$ 3,141,779,660
Prospective contributions		
Member contributions	$ 796,664,983	$ 839,435,357
Employer normal contributions	507,335,184	542,847,506
Unfunded accrued liability contributions	9,415,106,310	9,028,803,092
Total prospective contributions	$ 10,719,106,477	$ 10,411,085,955
Total assets	$ 13,670,960,454	$ 13,552,865,615
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 9,123,837,536	$ 8,986,162,124
Present value of benefits payable on account of active members	4,219,036,558	4,297,945,460
Present value of benefits payable on account of inactive members	328,086,360	268,758,031
Total liabilities	$ 13,670,960,454	$ 13,552,865,615

VALUATION BALANCE SHEET
INSURANCE BENEFITS
NON-HAZARDOUS KERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 621,236,646	$ 497,584,327
Prospective contributions		
Member contributions	$ 43,587,814	$ 37,703,377
Employer normal contributions	309,167,195	365,769,800
Unfunded accrued liability contributions	1,605,523,279	1,631,169,807
Total prospective contributions	$ 1,958,278,288	$ 2,034,642,984
Total assets	$ 2,579,514,934	$ 2,532,227,311
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 1,243,505,028	$ 1,187,225,490
Present value of benefits payable on account of active members	1,153,910,365	1,193,454,451
Present value of benefits payable on account of inactive members	182,099,541	151,547,370
Total liabilities	$ 2,579,514,934	$ 2,532,227,311

VALUATION BALANCE SHEET
INSURANCE BENEFITS
HAZARDOUS KERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 419,395,867	$ 370,774,403
Prospective contributions		
Member contributions	$ 4,775,581	$ 4,243,014
Employer normal contributions	73,670,480	90,975,571
Unfunded accrued liability contributions	(22,409,047)	14,743,272
Total prospective contributions	$ 56,037,014	$ 109,961,857
Total assets	$ 475,432,881	$ 480,736,260
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 186,628,983	$ 185,858,570
Present value of benefits payable on account of active members	268,955,476	278,704,745
Present value of benefits payable on account of inactive members	19,848,422	16,172,945
Total liabilities	$ 475,432,881	$ 480,736,260

VALUATION BALANCE SHEET
INSURANCE BENEFITS
TOTAL KERS MEMBERS

	June 30, 2014	June 30, 2013
ASSETS		
Current actuarial value of assets	$ 1,040,632,513	$ 868,358,730
Prospective contributions		
Member contributions	$ 48,363,395	$ 41,946,391
Employer normal contributions	382,837,675	456,745,371
Unfunded accrued liability contributions	1,583,114,232	1,645,913,079
Total prospective contributions	$ 2,014,315,302	$ 2,144,604,841
Total assets	$ 3,054,947,815	$ 3,012,963,571
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 1,430,134,011	$ 1,373,084,060
Present value of benefits payable on account of active members	1,422,865,841	1,472,159,196
Present value of benefits payable on account of inactive members	201,947,963	167,720,315
Total liabilities	$ 3,054,947,815	$ 3,012,963,571

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

Solvency Test
Retirement Benefits
Non-Hazardous KERS Members

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date	(1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)
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
6/30/2012	885,137,183	8,708,536,338	1,767,374,615	3,101,316,738	100.0	25.4	0.0
6/30/2013	922,928,027	8,709,323,622	1,754,350,510	2,636,122,852	100.0	19.7	0.0
6/30/2014	928,557,540	8,870,692,596	1,750,860,088	2,423,956,716	100.0	16.9	0.0

Solvency Test
Retirement Benefits
Hazardous KERS Members

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date	(1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)
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
6/30/2012	82,100,877	521,688,803	148,909,777	497,226,296	100.0	79.6	0.0
6/30/2013	82,145,602	545,596,534	156,238,458	505,656,808	100.0	77.6	0.0
6/30/2014	83,663,535	581,231,300	151,955,228	527,897,261	100.0	76.4	0.0

Solvency Test
Insurance Benefits
Non-Hazardous KERS Members

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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
6/30/2012	0	1,924,068,623	1,201,261,534	446,080,511	100.0	23.2	0.0
6/30/2013	0	1,338,772,860	789,981,274	497,584,327	100.0	37.2	0.0
6/30/2014	0	1,425,604,569	801,155,356	621,236,646	100.0	43.6	0.0

Solvency Test
Insurance Benefits
Hazardous KERS Members

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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
6/30/2012	0	196,578,935	188,013,471	345,573,948	100.0	100.0	79.2
6/30/2013	0	202,031,515	183,486,160	370,774,403	100.0	100.0	92.0
6/30/2014	0	206,477,405	190,509,415	419,395,867	100.0	100.0	100.0

SCHEDULE B

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

	Valuation date June 30:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 3,101,316,738	$ 2,636,122,852				
B.	Market Value End of Year	2,747,428,086	2,560,419,519				
C.	Market Value Beginning of Year	2,980,401,603	2,747,428,086				
D.	Cash Flow						
	D1. Contributions	377,617,564	389,777,286				
	D2. Benefit Payments	(886,812,291)	(903,563,734)				
	D3. Administrative Expenses	(10,718,851)	(11,144,929)				
	D4. Investment Expenses	(12,324,984)	(9,152,919)				
	D5. Net	(532,238,562)	(534,084,296)				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	299,265,045	347,075,729				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	223,159,457	201,737,505				
	E4. Amount for Phased-In Recognition	76,105,588	145,338,224				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	15,221,118	29,067,645	0	0	0	0
	F2. First Prior Year	(46,821,807)	15,221,118	29,067,645	0	0	0
	F3. Second Prior Year	68,172,485	(46,821,807)	15,221,118	29,067,645	0	0
	F4. Third Prior Year	54,541,214	68,172,485	(46,821,807)	15,221,118	29,067,645	0
	F5. Fourth Prior Year	(247,227,791)	54,541,214	68,172,485	(46,821,807)	15,221,118	29,067,645
	F6. Total Recognized Investment Gain	(156,114,781)	120,180,655	65,639,441	(2,533,044)	44,288,763	29,067,645
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 2,636,122,852	$ 2,423,956,716				
H.	Difference Between Market & Actuarial Values	$ 111,305,234	$ 136,462,803	$ 70,823,362	$ 73,356,406	$ 29,067,645	$ 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:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 497,226,296	$ 505,656,808				
B.	Market Value End of Year	513,162,166	559,504,340				
C.	Market Value Beginning of Year	478,103,794	513,162,166				
D.	Cash Flow						
	D1. Contributions	38,798,624	23,665,778				
	D2. Benefit Payments	(51,616,993)	(57,150,606)				
	D3. Administrative Expenses	(732,555)	(897,111)				
	D4. Investment Expenses	(1,815,898)	(2,261,049)				
	D5. Net	(15,366,822)	(36,642,988)				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	50,425,194	82,985,162				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	38,343,844	40,698,817				
	E4. Amount for Phased-In Recognition	12,081,350	42,286,345				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	2,416,270	8,457,269	0	0	0	0
	F2. First Prior Year	(9,594,554)	2,416,270	8,457,269	0	0	0
	F3. Second Prior Year	9,718,299	(9,594,554)	2,416,270	8,457,269	0	0
	F4. Third Prior Year	7,187,340	9,718,299	(9,594,554)	2,416,270	8,457,269	0
	F5. Fourth Prior Year	(24,273,865)	7,187,340	9,718,299	(9,594,554)	2,416,270	8,457,269
	F6. Total Recognized Investment Gain	(14,546,510)	18,184,624	10,997,284	1,278,985	10,873,539	8,457,269
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 505,656,808	$ 527,897,261				
H.	Difference Between Market & Actuarial Values	$ 7,505,358	$ 31,607,079	$ 20,609,795	$ 19,330,810	$ 8,457,269	$ 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:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 446,080,511	$ 497,584,327				
B.	Market Value End of Year	509,364,080	664,775,708				
C.	Market Value Beginning of Year	430,805,726	509,364,080				
D.	Cash Flow						
	D1. Contributions	184,673,842	172,080,578				
	D2. Benefit Payments	(140,156,341)	(112,671,651)				
	D3. Administrative Expenses	(4,285,139)	(735,604)				
	D4. Investment Expenses	(1,570,529)	(1,929,107)				
	D5. Net	38,661,833	56,744,216				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	39,896,521	98,667,412				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	36,516,977	43,678,414				
	E4. Amount for Phased-In Recognition	3,379,544	54,988,998				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	675,909	10,997,800	0	0	0	0
	F2. First Prior Year	(6,969,893)	675,909	10,997,800	0	0	0
	F3. Second Prior Year	11,459,921	(6,969,893)	675,909	10,997,800	0	0
	F4. Third Prior Year	7,065,952	11,459,921	(6,969,893)	675,909	10,997,800	0
	F5. Fourth Prior Year	(35,906,883)	7,065,952	11,459,921	(6,969,893)	675,909	10,997,800
	F6. Total Recognized Investment Gain	(23,674,994)	23,229,689	16,163,737	4,703,816	11,673,709	10,997,800
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 497,584,327	$ 621,236,646				
H.	Difference Between Market & Actuarial Values	$ 11,779,753	$ 43,539,062	$ 27,375,325	$ 22,671,509	$ 10,997,800	$ 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:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 345,573,948	$ 370,774,403				
B.	Market Value End of Year	374,309,576	435,503,976				
C.	Market Value Beginning of Year	333,298,119	374,309,576				
D.	Cash Flow						
	D1. Contributions	26,684,555	24,462,622				
	D2. Benefit Payments	(16,836,455)	(15,404,747)				
	D3. Administrative Expenses	(178,870)	(77,471)				
	D4. Investment Expenses	(1,018,077)	(1,621,522)				
	D5. Net	8,651,153	7,358,882				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	32,360,304	53,835,518				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	27,223,364	30,978,505				
	E4. Amount for Phased-In Recognition	5,136,940	22,857,013				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	1,027,388	4,571,403	0	0	0	0
	F2. First Prior Year	(4,939,727)	1,027,388	4,571,403	0	0	0
	F3. Second Prior Year	4,619,785	(4,939,727)	1,027,388	4,571,403	0	0
	F4. Third Prior Year	5,005,228	4,619,785	(4,939,727)	1,027,388	4,571,403	0
	F5. Fourth Prior Year	(16,386,736)	5,005,228	4,619,785	(4,939,727)	1,027,388	4,571,403
	F6. Total Recognized Investment Gain	(10,674,062)	10,284,077	5,278,849	659,064	5,598,791	4,571,403
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 370,774,403	$ 419,395,867				
H.	Difference Between Market & Actuarial Values	$ 3,535,173	$ 16,108,109	$ 10,829,260	$ 10,170,196	$ 4,571,403	$ 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	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 Male	Death Female	Disability	Service Retirement+	Service Retirement++
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** Male	Death** Female	Disability	Service Retirement Service	Service Retirement Rate+	Service Retirement 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.

	Trend	
Fiscal Year Ended	Under Age 65	Age 65 and Over
2015	7.75%	6.00%
2016	6.75%	5.75%
2017	6.25%	5.50%
2018	5.75%	5.25%
2019	5.25%	5.00%
2020 and beyond	5.00%	5.00%

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, 2014				
	Single	Parent Plus	Couple	Family
Total Premiums				
LivingWell CDHP	$733.88	$1,045.20	$1,603.94	$1,785.16
LivingWell PPO	$699.28	$995.94	$1,528.34	$1,701.04
Standard PPO	$656.28	$934.70	$1,434.36	$1,596.42
Standard CDHP	$641.50	$913.66	$1,402.06	$1,560.48

Effective January 1, 2015				
	Single	Parent Plus	Couple	Family
Total Premiums				
LivingWell CDHP	$689.28	$950.62	$1,282.84	$1,432.06
LivingWell PPO	$708.56	$1,007.46	$1,543.58	$1,716.92
Standard PPO	$665.40	$946.88	$1,451.56	$1,615.30
Standard CDHP	$650.92	$913.28	$1,406.14	$1,566.20

MEDICAL INSURANCE RATES
MEDICARE ELIGIBLE

Effective January 1, 2015	
Available Plan	**Premium**
Kentucky Retirement System Health Plan - Medical Only	$162.00
Kentucky Retirement System Health Plan - Essential	$77.76
Kentucky Retirement System Health Plan - Premium	$244.25

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

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

Age Requirement	65
Service Requirement	At least one month of non-hazardous duty service credit
Amount	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%. 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. If a member has less than 48 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

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

Age Requirement	65
Service Requirement	At least one month of non-hazardous duty service credit
Amount	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. 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. 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.

Non-Hazardous Normal Retirement (continued):

Members whose participation began on or after 9/1/2008 but before 1/1/2014

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.

Members whose participation began on or after 1/1/2014

Requirement

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

Amount

Each year that a member is an active contributing member to the System, the member and the member's employer will contribute 5.00% and 4.00% of creditable compensation respectively into a hypothetical account. This hypothetical account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year.

Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

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 2.49% 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 but before 1/1/2014

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.

Hazardous Normal Retirement (continued):

Members whose participation began on or after 1/1/2014

Age Requirement	60
Service Requirement	At least 60 months of hazardous duty service credit or 25 or more years of service, with no age requirement
Amount	Each year that a member is an active contributing member to the System, the member and the member's employer will contribute 8.00% and 7.50% of creditable compensation respectively into a hypothetical account. This hypothetical account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year. Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

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

Non-Hazardous Early Retirement (continued):

Members whose participation began on or after 9/1/2008 but before 1/1/2014

Requirement	Age 60 with 10 years of service.
Amount	Normal retirement benefit reduced by 6.5% per year for the first five years and 4.5% per year for the next five years for each year the member is younger than age 65, or 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.

Members whose participation began on or after 9/1/2008 but before 1/1/2014

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.

Non-Hazardous Disability (continued):

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 but before 1/1/2014

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.

Members whose participation began on or after 1/1/2014

The hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 20% of the member's monthly final rate of pay or the annuitized hypothetical account into a single life annuity option.

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.

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.

Hazardous Disability (continued):

Members whose participation began on or after 8/1/2004 but before 1/1/2014

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.

Members whose participation began on or after 1/1/2014

The hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 25% of the member's monthly final rate of pay or the annuitized hypothetical account into a single life annuity option.

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. Recontribution of refunds and omitted service purchases are the exception to this rule for service requirement.

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 but before 1/1/2014

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. Recontribution of refunds and omitted service purchases are the exception to this rule for service requirement.

Amount

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

Vesting (continued):

Normal Retirement Age	65 for non-hazardous members and 60 for hazardous members.

Members whose participation began on or after 1/1/2014

Age Requirement	None
Service Requirement	60 months.
Amount	Upon termination the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or the member can elect to leave the hypothetical account balance in the System. If the member does not withdraw the account balance, it will continue to earn 4% interest. Upon reaching normal retirement age the member can apply for retirement and receive the account balance as a lump sum payment or annuitize the account balance into a single life annuity.

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

Members whose participation began before 1/1/2014

Requirement	Eligible for Normal or Early Retirement, or any age in active employment with 60 months service, or any age and not in active employment with at least 144 months of 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.

Members whose participation began on or after 1/1/2014

Requirement	60 months service
Amount	The maximum of the benefit equal to the benefit the member would have received had the member retired on the day before 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 is currently 2.5% shall not be less than 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.

Non-Hazardous Member Contributions (continued):

Members whose participation began on or after 1/1/2014	6% of all creditable compensation, with 5% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Member entitled to a full refund of contributions and interest on the member's portion of the hypothetical 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 is currently set at 2.5% and per statute, shall not be less than 2.0%. Member entitled to a full refund of contributions with interest.
Members whose participation began on or after 9/1/2008 and up to 1/1/2014	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.
Members whose participation began on or after 1/1/2014	9% of all creditable compensation, with 8% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Member entitled to a full refund of contributions and interest on the member's portion of the hypothetical account, however, the 1% contributed to the insurance fund is non-refundable.

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 lifetime 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*
0 – 3 years	0%
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 retirement benefit.*

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 $12.61 per month for each year of earned service for retirees. This amount is shown as of the valuation date and is increased annually by 1.5%.

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 lifetime 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*
0 – 3 years	0%
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 retirement benefit.*

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 $18.91 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive $12.61 per month for each year of earned. These amounts are shown as of the valuation date and are increased annually by 1.5%.

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	2009	2010	2011	2012	2013	2014
			Number			
Beginning of Year	35,307	37,883	37,945	38,597	39,226	40,194
Added	3,465	1,162	1,592	1,707	1,982	2,067
Removed	889	1,100	940	1,078	1,014	1,038
End of Year	37,883	37,945	38,597	39,226	40,194	41,223
			Annual Allowances*			
Beginning of Year	$ 710,505,270	$ 812,559,070	$ 801,881,911	$ 821,197,278	$ 844,880,945	$ 872,139,782
Added	110,700,043	865,483	31,930,847	37,458,130	41,468,079	31,433,028
Removed	8,646,243	11,542,643	12,615,480	13,774,463	14,209,242	15,142,500
End of Year	$ 812,559,070	$ 801,881,911	$ 821,197,278	$ 844,880,945	$ 872,139,782	$ 888,430,310
% Increase in Allowances	14.36%	(1.31)%	2.41%	2.88%	3.23%	1.87%
Average Annual Allowance	$ 21,449	$ 21,133	$ 21,276	$ 21,539	$ 21,698	$ 21,552

** The annual allowances shown for 2013 and 2014 include allowances for hazardous members who are receiving a portion of benefit from the non-hazardous system.*

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

Year Ending June 30	2009	2010	2011	2012	2013	2014
			Number			
Beginning of Year	2,404	2,648	2,835	3,064	3,253	3,430
Added	339	282	288	243	229	256
Removed	95	95	59	54	52	66
End of Year	2,648	2,835	3,064	3,253	3,430	3,620
			Annual Allowances			
Beginning of Year	$ 33,588,993	$ 38,695,501	$ 41,114,800	$ 45,609,229	$ 49,231,205	$ 51,122,456
Added	5,443,628	3,315,361	5,012,933	4,213,360	2,390,928	3,761,697
Removed	337,120	896,062	518,504	591,384	499,677	612,435
End of Year	$ 38,695,501	$ 41,114,800	$ 45,609,229	$ 49,231,205	$ 51,122,456	$ 54,271,718
% Increase in Allowances	15.20%	6.25%	10.93%	7.94%	3.84%	6.16%
Average Annual Allowance	$ 14,613	$ 14,503	$ 14,886	$ 15,134	$ 14,905	$ 14,992

Non-Hazardous Retired Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	3,552	$ 6,562,811.30	10,296	$ 15,266,400.20	13,848	$ 21,829,211.50
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	1,956	3,691,617.33	847	1,053,021.59	2,803	4,744,638.92
66-2/3% to Beneficiary	774	2,270,682.34	447	932,418.62	1,221	3,203,100.96
50% to Beneficiary	1,100	2,825,768.00	1,338	2,734,870.43	2,438	5,560,638.43
Pop-up Option	3,751	9,316,621.29	3,263	6,493,081.08	7,014	15,809,702.37
10 Years Certain	0	0.00	0	0.00	0	0.00
10 Years Certain & Life	907	1,590,748.70	2,043	3,111,640.78	2,950	4,702,389.48
Social Security Option						
Age 62 Basic	418	1,044,817.57	978	1,785,259.83	1,396	2,830,077.40
Age 62 Survivorship	831	1,948,137.65	577	1,095,214.53	1,408	3,043,352.18
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	394	644,031.91	532	833,232.06	926	1,477,263.97
20 Years Certain & Life	395	875,590.10	529	870,935.57	924	1,746,525.67
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	84	135,249.05	303	458,748.61	387	593,997.66
PLSO 24 Month Basic	36	42,772.42	166	208,631.83	202	251,404.25
PLSO 36 Month Basic	160	142,510.31	416	319,576.45	576	462,086.76
PLSO 12 Month Survivor	106	226,387.25	103	177,608.86	209	403,996.11
PLSO 24 Month Survivor	89	137,115.06	78	114,819.45	167	251,934.51
PLSO 36 Month Survivor	240	259,395.44	160	136,318.67	400	395,714.11
Total	14,793	$ 31,714,255.72	22,076	$ 35,591,778.56	36,869	$ 67,306,034.28

Hazardous Retired Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	390	$ 412,035.18	522	$ 579,779.68	912	$ 991,814.86
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	32	35,980.19	251	305,308.03	283	341,288.22
66-2/3% to Beneficiary	24	27,779.79	94	118,865.88	118	146,645.67
50% to Beneficiary	50	77,799.68	146	218,747.73	196	296,547.41
Pop-up Option	149	190,909.17	759	1,126,765.37	908	1,317,674.54
10 Years Certain	6	6,611.16	38	48,373.30	44	54,984.46
10 Years Certain & Life	65	54,721.40	110	124,920.84	175	179,642.24
Social Security Option						
Age 62 Basic	31	51,080.74	58	118,563.39	89	169,644.13
Age 62 Survivorship	17	23,940.73	142	302,305.86	159	326,246.59
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	15	13,307.43	44	56,325.69	59	69,633.12
20 Years Certain & Life	20	30,411.72	52	70,748.57	72	101,160.29
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	15	12,928.54	12	11,835.61	27	24,764.15
PLSO 24 Month Basic	11	9,071.88	16	16,016.98	27	25,088.86
PLSO 36 Month Basic	25	21,280.54	46	39,101.25	71	60,381.79
PLSO 12 Month Survivor	6	5,150.84	21	27,586.95	27	32,737.79
PLSO 24 Month Survivor	9	11,029.16	19	27,990.82	28	39,019.98
PLSO 36 Month Survivor	15	18,695.05	49	49,400.40	64	68,095.45
Total	880	$ 1,002,733.20	2,379	$ 3,242,636.35	3,259	$ 4,245,369.55

Non-Hazardous Beneficiary Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	15	$ 9,869.31	23	$ 24,773.89	38	$ 34,643.20
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	332	283,148.14	1,452	1,467,422.69	1,784	1,750,570.83
66-2/3% to Beneficiary	48	54,410.95	311	328,675.41	359	383,086.36
50% to Beneficiary	124	93,939.07	438	300,683.21	562	394,622.28
Pop-up Option	161	265,978.79	525	808,521.28	686	1,074,500.07
10 Years Certain	76	59,416.83	86	66,281.37	162	125,698.20
10 Years Certain & Life	28	28,002.95	33	36,541.69	61	64,544.64
Social Security Option						
Age 62 Basic	3	5,628.35	7	3,680.93	10	9,309.28
Age 62 Survivorship	57	102,325.10	261	446,877.33	318	549,202.43
Partial Deferred (Old Plan)	0	0.00	0	0.00	0	0.00
Widows Age 60	0	0.00	5	2,090.62	5	2,090.62
Dependent Child	0	0.00	0	0.00	0	0.00
Refund	2	1,701.43	9	8,742.08	11	10,443.51
15 Years Certain & Life	19	22,242.37	45	72,540.92	64	94,783.29
20 Years Certain & Life	25	31,560.94	74	125,053.69	99	156,614.63
5 Years Certain	53	44,525.49	44	42,134.21	97	86,659.70
PLSO 12 Month Basic	0	0.00	1	1,791.60	1	1,791.60
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	0	0.00	2	3,357.39	2	3,357.39
PLSO 12 Month Survivor	7	11,995.07	14	19,608.72	21	31,603.79
PLSO 24 Month Survivor	9	11,795.18	17	14,052.91	26	25,848.09
PLSO 36 Month Survivor	19	19,333.25	45	45,817.28	64	65,150.53
Total	978	$ 1,045,873.22	3,392	$ 3,818,647.22	4,370	$ 4,864,520.44

Hazardous Beneficiary Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	2	$ 1,168.25	4	$ 2,566.69	6	$ 3,734.94
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	14	9,435.66	120	83,547.38	134	92,983.04
66-2/3% to Beneficiary	1	962.29	15	6,106.18	16	7,068.47
50% to Beneficiary	4	2,283.11	24	9,745.06	28	12,028.17
Pop-up Option	18	18,773.58	64	47,581.09	82	66,354.67
10 Years Certain	5	4,622.67	12	10,770.97	17	15,393.64
10 Years Certain & Life	4	2,570.43	3	3,738.48	7	6,308.91
Social Security Option						
Age 62 Basic	0	0.00	0	0.00	0	0.00
Age 62 Survivorship	1	1,166.60	26	44,001.12	27	45,167.72
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	262.55	3	2,151.81	4	2,414.36
15 Years Certain & Life	3	1,422.71	7	3,186.54	10	4,609.25
20 Years Certain & Life	1	619.70	5	2,284.98	6	2,904.68
5 Years Certain	4	2,854.84	2	634.60	6	3,489.44
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	1	125.74	1	125.74
PLSO 12 Month Survivor	0	0.00	3	3,344.12	3	3,344.12
PLSO 24 Month Survivor	1	995.41	3	2,052.16	4	3,047.57
PLSO 36 Month Survivor	3	1,072.35	7	7,226.54	10	8,298.89
Total	62	$ 48,210.15	299	$ 229,063.46	361	$ 277,273.61

Non-Hazardous Members
Retired and Beneficiary Information June 30, 2014
Tabulated by Attained Ages

	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
Attained Age	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	47	$ 1,143,341	40	$ 466,079	94	$ 605,781	181	$ 2,215,201
45-49	468	$ 12,506,433	92	$ 1,398,814	46	$ 510,099	606	$ 14,415,346
50-54	1,794	$ 53,698,466	158	$ 2,143,459	124	$ 1,705,277	2,076	$ 57,547,202
55-59	4,278	$ 124,984,030	282	$ 3,998,095	209	$ 2,972,773	4,769	$ 131,954,898
60-64	7,054	$ 182,774,761	373	$ 4,776,818	358	$ 6,178,696	7,785	$ 193,730,275
65-69	8,067	$ 181,378,509	371	$ 4,675,140	496	$ 9,035,023	8,934	$ 195,088,672
70-74	5,467	$ 106,983,861	265	$ 3,341,544	457	$ 7,486,528	6,189	$ 117,811,933
75-79	3,430	$ 59,582,622	191	$ 2,186,137	554	$ 8,126,417	4,175	$ 69,895,176
80-84	2,274	$ 34,110,675	90	$ 933,363	527	$ 7,733,513	2,891	$ 42,777,551
85-89	1,397	$ 18,503,737	32	$ 283,074	547	$ 7,131,074	1,976	$ 25,917,885
90 & Over	689	$ 7,705,920	10	$ 97,533	942	$ 6,889,064	1,641	$ 14,692,517
Totals	34,965	$ 783,372,355	1,904	$ 24,300,056	4,354	$ 58,374,245	41,223	$ 866,046,656

Hazardous Members
Retired and Beneficiary Information June 30, 2014
Tabulated by Attained Ages

	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
Attained Age	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	28	$ 534,063	14	$ 179,988	18	$ 70,642	60	$ 784,693
45-49	190	$ 4,136,438	17	$ 159,101	5	$ 71,421	212	$ 4,366,960
50-54	290	$ 5,737,266	23	$ 237,335	12	$ 120,132	325	$ 6,094,733
55-59	495	$ 9,838,790	24	$ 225,048	32	$ 369,718	551	$ 10,433,556
60-64	700	$ 11,496,460	31	$ 268,011	52	$ 636,850	783	$ 12,401,321
65-69	766	$ 10,963,264	19	$ 128,092	49	$ 508,875	834	$ 11,600,231
70-74	358	$ 4,239,239	7	$ 33,113	58	$ 512,428	423	$ 4,784,780
75-79	185	$ 1,773,476	6	$ 28,701	51	$ 483,463	242	$ 2,285,640
80-84	74	$ 597,705	4	$ 9,617	46	$ 258,420	124	$ 865,742
85-89	23	$ 242,224			26	$ 160,892	49	$ 403,116
90 & Over	5	$ 116,504			12	$ 134,442	17	$ 250,946
Totals	3,114	$ 49,675,429	145	$ 1,269,006	361	$ 3,327,283	3,620	$ 54,271,718

Total Non-Hazardous Active Members as of June 30, 2014
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	17								17
Avg Pay	$17,634								$17,634
20-24	899	6							905
Avg Pay	$23,585	$25,848							$23,600
25-29	2,698	489	5						3,192
Avg Pay	$28,394	$31,380	$31,271						$28,856
30-34	2,210	1,944	506	20					4,680
Avg Pay	$31,001	$36,187	$37,888	$40,524					$33,940
35-39	1,540	1,631	1,529	463	15				5,178
Avg Pay	$31,987	$38,100	$41,914	$42,686	$46,682				$37,843
40-44	1,352	1,346	1,438	1,136	444	38	25	8	5,787
Avg Pay	$32,008	$38,757	$43,120	$44,965	$47,322	$52,412	$57,690	$66,604	$40,350
44-49	1,184	1,206	1,117	997	836	277	189	61	5,867
Avg Pay	$31,144	$37,991	$43,435	$47,377	$49,215	$50,389	$56,922	$61,849	$42,283
50-54	1,042	1,188	1,098	851	693	293	320	155	5,640
Avg Pay	$31,883	$37,854	$41,035	$45,893	$47,276	$51,951	$55,775	$62,332	$42,163
55-59	786	1,050	963	801	603	197	224	132	4,756
Avg Pay	$32,376	$38,716	$40,640	$43,624	$47,605	$51,152	$55,562	$60,915	$41,936
60-64	430	690	696	512	363	117	133	99	3,040
Avg Pay	$35,344	$40,499	$40,323	$43,463	$47,818	$50,065	$55,745	$64,908	$42,933
65-69	93	238	236	198	106	34	41	24	970
Avg Pay	$39,570	$44,082	$42,050	$48,736	$52,671	$54,149	$56,645	$64,747	$46,439
70 & over	27	60	87	66	49	13	17	14	333
Avg Pay	$38,792	$35,859	$35,464	$47,953	$49,447	$58,956	$57,905	$66,363	$43,700
Totals	12,278	9,848	7,675	5,044	3,109	969	949	493	40,365
Avg Pay	$30,512	$37,793	$41,590	$45,193	$48,146	$51,303	$56,075	$62,711	$39,081

Total Hazardous Active Members as of June 30, 2014
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	265								265
Avg Pay	$22,560								$22,560
25-29	502	56							558
Avg Pay	$25,771	$31,490							$26,345
30-34	302	253	45	1					601
Avg Pay	$27,221	$32,625	$34,531	$40,422					$30,065
35-39	189	175	139	29					532
Avg Pay	$26,995	$33,942	$37,476	$39,587					$32,705
40-44	162	157	134	137	13	1			604
Avg Pay	$27,446	$34,230	$38,162	$42,448	$43,160	$48,424			$35,363
44-49	119	133	93	83	38	10	1	2	479
Avg Pay	$26,148	$32,253	$35,932	$41,796	$50,502	$51,377	$101,685	$62,693	$35,223
50-54	121	97	79	61	21	15	3	1	398
Avg Pay	$26,684	$32,902	$36,536	$39,911	$51,739	$55,787	$59,084	$103,084	$35,037
55-59	94	83	75	51	18	3	2	4	330
Avg Pay	$27,734	$31,536	$35,765	$40,346	$51,701	$46,724	$37,002	$55,543	$34,338
60-64	38	53	52	35	9	1	1	1	190
Avg Pay	$28,804	$32,095	$37,426	$42,052	$43,663	$47,107	$65,987	$54,529	$35,654
65-69	6	17	17	9	5	1	1		56
Avg Pay	$27,276	$42,163	$33,510	$43,783	$51,438	$63,125	$51,908		$39,578
70 & over	2	2	4	3					11
Avg Pay	$24,758	$28,293	$53,482	$37,002					$39,185
Totals	1,800	1,026	638	409	104	31	8	8	4,024
Avg Pay	$26,078	$33,045	$36,860	$41,423	$49,495	$53,206	$58,855	$63,146	$32,077

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Report on the Annual Valuation of the State Police Retirement System

Prepared as of June 30, 2014

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The experience and dedication you deserve

November 12, 2014

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 date of the valuation was June 30, 2014.

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.

Since the previous valuation, the cash balance plan (a provision of Senate Bill 2) for members whose participation date is on or after January 1, 2014 has been reflected in this valuation.

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 are members of the American Academy of Actuaries and meet 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.

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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, MAAA, EA
Chief Executive Officer

Todd B. Green ASA, FCA, MAAA
Principal and Consulting Actuary

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

TJC/TBG/AB:kc

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REPORT ON THE ANNUAL VALUATION OF THE STATE POLICE RETIREMENT SYSTEM

PREPARED AS OF JUNE 30, 2014

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2014, 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

	6/30/2014	6/30/2013
Contributions for next fiscal year:		
Retirement	58.44%	53.90%
Insurance	19.17	21.86
Total	77.61%	75.76%
Funded status as of valuation date:		
Retirement		
Actuarial accrued liability	$681,118,402	$651,580,654
Actuarial value of assets	242,741,735	241,800,328
Unfunded liability on actuarial value of assets	438,376,667	409,780,326
Funded ratio on actuarial value of assets	35.64%	37.11%
Market value of assets	$260,763,486	$248,559,040
Unfunded liability on market value of assets	420,354,916	403,021,614
Funded ratio on market value of assets	38.28%	38.15%
Insurance		
Actuarial accrued liability	$234,271,127	$222,326,743
Actuarial value of assets	155,594,760	136,321,060
Unfunded liability on actuarial value of assets	78,676,367	86,005,683
Funded ratio on actuarial value of assets	66.42%	61.32%
Market value of assets	$165,167,805	$142,830,916
Unfunded liability on market value of assets	69,103,322	79,495,827
Funded ratio on market value of assets	70.50%	64.24%
Demographic data as of valuation date:		
Number of retired participants and beneficiaries	1,413	1,346
Number of vested former members	59	60
Number of former members due a refund	349	330
Number of active members	855	902
Total salary	$44,615,885	$45,256,202
Average salary	$52,182	$50,173

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 and losses 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, the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky, has made the following changes for plan year 2015:
    - The new medical plan administrator is Anthem Blue Cross Blue Shield.
    - The new prescription drug plan administrator is CVS/caremark and changes were made to the prescription drug formulary.
    - Out-of-pocket maximums are now tracked separately for medical and prescription drug coverage. Prescription drug coverage is now capped.
    - The LivingWell PPO plan has lowered co-pays for mental health and allergy injections.
5. The following change has been reflected in this valuation in accordance with Senate Bill 2:
    - The cash balance plan for members whose participation date is on or after January 1, 2014 has been reflected in this valuation.
6. 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 tables summarize the membership of the system as of June 30, 2014 upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Active Members

		Group Averages		
Number	Payroll	Salary	Age	Service
855	$44,615,885	$52,182	37.8	10.9

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
6/30/2009	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)
6/30/2012	907	48,372,506	53,332	5.7
6/30/2013	902	45,256,202	50,173	(5.9)
6/30/2014	855	44,615,885	52,182	4.0

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

			Group Averages	
Type of Benefit Payment	Number	Annual Benefits	Benefit	Age
Retiree	1,189	$47,952,621	$40,330	61.8
Disability	52	$937,598	18,031	56.8
Beneficiary	172	4,542,227	26,408	65.3
Total in SPRS	1,413	$53,432,446	$37,815	62.0

This valuation also includes 408 inactive members of which 59 are vested.

SECTION III - ASSETS

1. As of June 30, 2014 the total market value of assets amounted to $425,931,291 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
$260,763,486	$165,167,805	$425,931,291

2. The five-year smoothed market related actuarial value of assets used for the current valuation was $398,336,495. Schedule B shows the development of the actuarial value of assets as of June 30, 2014. The following table shows the actuarial value of assets.

COMPARISON OF ACTUARIAL VALUE OF ASSETS

	JUNE 30, 2014	JUNE 30, 2013
Retirement	$ 242,741,735	$ 241,800,328
Insurance	155,594,760	136,321,060
Total	$ 398,336,495	$ 378,121,388

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, 2014. 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 $744,550,068, of which $559,105,744 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, $3,905,282 is for the prospective benefits payable on account of inactive members, $181,539,042 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 $242,741,735 as of June 30, 2014. The difference of $501,808,333 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, $32,424,439 is the present value of future contributions expected to be made by members, and the balance of $469,383,894 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 7.91% 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 $31,007,228. When this amount is subtracted from $469,383,894, which is the present value of the total future contributions to be made by the State, there remains $438,376,666 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 50.05% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of $438,376,667 over 29 years on the assumption that the aggregate payroll for members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.48% 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 $268,188,808, of which $139,228,358 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, $4,173,768 is for the prospective benefits payable on account of inactive members, and $124,786,682 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 $155,594,760 as of June 30, 2014. The difference of $112,594,048 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, $1,054,241 is the present value of future contributions expected to be made by members, and the balance of $111,539,807 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 10.00% 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 $32,863,440. When this amount is subtracted from $111,539,807, which is the present value of the total future contributions to be made by the employers, there remains $78,676,367 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 9.04% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of $78,676,367 over 29 years on the assumption that the aggregate payroll for members will increase by 4.50% each year.
5. The contribution rate for administrative expenses is determined to be 0.13% 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, 2014 is shown below ($ millions).

Experience Gain/(Loss)
Retirement Benefits

			Amount
(1)	UAAL* as of 6/30/13	$	409.8
(2)	Normal cost from last valuation		7.4
(3)	Contributions		25.3
(4)	Interest accrual: [(1) + (2)] x .0775 - (3) x .03875		31.4
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	$	423.3
(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)	$	423.3
(9)	Actual UAAL as of 6/30/14	$	438.4
(10)	Gain/(loss): (8) - (9)	$	(15.1)
(11)	Accrued liabilities as of 6/30/13	$	651.6
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year		(2.3)%

**Unfunded actuarial accrued liability*

Experience Gain/(Loss)
Insurance Benefits

			Amount
(1)	UAAL* as of 6/30/13	$	86.0
(2)	Normal cost from last valuation		5.4
(3)	Expected employer contributions		9.7
(4)	Interest accrual: [(1) + (2) - (3)] x .0775		6.3
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	$	88.0
(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)	$	88.0
(9)	Actual UAAL as of 6/30/14	$	78.7
(10)	Gain/(loss): (8) - (9)	$	9.3
(11)	Accrued liabilities as of 6/30/13	$	222.3
(12)	Gain/(loss) as percent of actuarial accrued liabilities at start of year		4.2%

* *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 6/30/14	Insurance $ Gain (or Loss) For Year Ending 6/30/14
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (26.3)	$ (10.4)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.2)	0.2
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	(0.1)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(0.7)	(0.7)
Pay or Claims Increases. If there are smaller pay increases than assumed, there is a gain.If greater increases, a loss. For insurance, smaller claims increases than assumed creates a gain; larger, a loss.	4.4	5.3
New Members. Additional unfunded accrued liability will produce a loss.	(0.1)	0.0
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	11.5	6.8
Death or Waiver After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain. If retired members receiving health benefits later waive coverage, there is a gain.	(1.0)	13.1
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, insurance election changes, etc.	(2.7)	(4.9)
Gain (or Loss) During Year From Financial Experience	$ (15.1)	$ 9.3
Non-Recurring Items. Adjustments for plan amendments, assumption changes, method changes and data corrections	0.0	0.0
Composite Gain (or Loss) During Year	$ (15.1)	$ 9.3

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. This rate is for informational purposes only.

Required Contribution Rates
Retirement

	Contribution for		Amount	% of Payroll
A.	Normal Cost:			
	(1) Service retirement benefits	$	6,746,989	15.03%
	(2) Disability benefits		315,258	0.70
	(3) Survivor benefits		79,688	0.18
	(4) Total	$	7,141,935	15.91%
B.	Member Contributions	$	3,569,271	8.00%
C.	Employer Normal Cost: [A(4) - B]	$	3,572,664	7.91%
D.	Administrative Expenses	$	214,156	0.48%
E.	Unfunded Actuarial Accrued Liability Contributions*:			
	(1) UAAL Contribution Based on 6/30/13 Valuation:	$	20,565,583	45.44%
	(2) Change due to:			
	a. Active decrements	$	206,988	0.46%
	b. Pay increases		(224,383)	(0.50)
	c. Retiree mortality		49,951	0.11
	d. Investment return		530,495	1.19
	e. COLA		0	0.00
	f. Assumption Change		0	0.00
	g. Other		1,335,940	3.35
	h. Total Change	$	1,898,991	4.61%
	(3) UAAL Contribution Based on 6/30/14 Valuation: [E(1) +E(2)h]	$	22,464,574	50.05%
F.	Total Recommended Employer Contribution Rate: [C+D+E(3)]	**$**	26,251,394	58.44%

** Based on 29 year amortization of the UAAL from June 30, 2014*

Required Contribution Rates
Insurance

	Contribution for		Amount	% of Payroll
A.	Normal Cost	$	4,530,360	10.15%
B.	Member Contributions*	$	66,924	0.15%
C.	Employer Normal Cost: [A - B]	$	4,463,436	10.00%
D.	Administrative Expenses	$	57,433	0.13%
E.	Unfunded Actuarial Accrued Liability**	$	4,031,764	9.04%
F.	Total Recommended Employer Contribution Rate: [C+D+E]	$	8,552,633	19.17%

**The liabilities are net of retiree contributions toward their healthcare.*
*** Based on 29 year amortization of the UAAL from June 30, 2014*

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, 2014

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	1,413
Terminated employees entitled to benefits but not yet receiving benefits	408
Active Members	855
Total	2,676

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

RETIREMENT BENEFITS
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c)
6/30/2009	$ 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
6/30/2012	259,791,575	647,688,665	387,897,090	40.1	48,372,506	801.9
6/30/2013	241,800,328	651,580,654	409,780,326	37.1	45,256,202	905.5
6/30/2014	242,741,735	681,118,402	438,376,667	35.6	44,615,885	982.6

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)
6/30/2009	$ 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
6/30/2012	124,372,072	333,903,782	209,531,710	37.2	48,372,506	433.2
6/30/2013*	136,321,060	222,326,743	86,005,683	61.3	45,256,202	190.0
6/30/2014	155,594,760	234,271,127	78,676,367	66.4	44,615,885	176.3

** Discount rate changed from 4.50% to 7.75%*

RETIREMENT BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended	Annual Required Contribution	Actual Contributions	Percentage Contributed
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
June 30, 2012	20,497,924	15,361,781	74.9
June 30, 2013	23,117,291	18,501,090	80.0
June 30, 2014	25,808,492	20,279,448	78.6

INSURANCE BENEFITS
SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended	Annual Required Contribution	Retiree Drug Subsidy (RDS) Contribution	Employer Contributions	Total Contributions	Percentage Contributed
June 30, 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
June 30, 2012	28,246,786	0	11,960,468	11,960,468	42.3
June 30, 2013	27,234,229	0	16,828,681	16,828,681	61.8
June 30, 2014	20,879,022	0	14,493,242	14,493,242	69.4

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2014. Additional information as of the latest actuarial valuation follows.

Retirement Benefits	
Valuation date	6/30/2014
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	29 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	6/30/2014
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	29 years
Asset valuation method	5 Year Smoothed Market
Medical Trend Assumption (Pre-Medicare)	7.75% - 5.00%
Medical Trend Assumption (Post-Medicare)	6.00% - 5.00%
Year of Ulitimate Trend	2020
Actuarial assumptions:	
Investment rate of return*	7.75%
*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, 2014 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2013. 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, 2014	JUNE 30, 2013
ASSETS		
Current actuarial value of assets	$ 242,741,735	$ 241,800,328
Prospective contributions		
Member contributions	$ 32,424,439	$ 33,277,558
Employer normal contributions	31,007,228	32,444,397
Unfunded accrued liability contributions	438,376,667	409,780,326
Total prospective contributions	$ 501,808,334	$ 475,502,281
Total assets	$ 744,550,069	$ 717,302,609
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 559,105,744	$ 532,387,170
Present value of benefits payable on account of active members	181,539,042	181,582,414
Present value of benefits payable on account of inactive members	3,905,282	3,333,025
Total liabilities	$ 744,550,068	$ 717,302,609

VALUATION BALANCE SHEET
INSURANCE BENEFITS

	JUNE 30, 2014	JUNE 30, 2013
ASSETS		
Current actuarial value of assets	$ 155,594,760	$ 136,321,060
Prospective contributions		
Member contributions	$ 1,054,241	$ 845,028
Employer normal contributions	32,863,440	42,260,569
Unfunded accrued liability contributions	78,676,367	86,005,683
Total prospective contributions	$ 112,594,048	$ 129,111,280
Total assets	$ 268,188,808	$ 265,432,340
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 139,228,358	$ 136,470,662
Present value of benefits payable on account of active members	124,786,682	125,923,750
Present value of benefits payable on account of inactive members	4,173,768	3,037,928
Total liabilities	$ 268,188,808	$ 265,432,340

The following tables provide the solvency test for SPRS members.

Solvency Test
Retirement Benefits

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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
6/30/2012	41,139,306	523,016,647	83,532,712	259,791,575	100.0	41.8	0.0
6/30/2013	39,788,421	535,720,195	76,072,038	241,800,328	100.0	37.7	0.0
6/30/2014	41,831,465	563,011,026	76,275,911	242,741,735	100.0	35.7	0.0

Solvency Test
Insurance Benefits

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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
6/30/2012	0	190,258,729	143,645,053	124,372,072	100.0	65.4	0.0
6/30/2013	0	139,508,590	82,818,153	136,321,060	100.0	97.7	0.0
6/30/2014	0	143,402,126	90,869,001	155,594,760	100.0	100.0	13.4

SCHEDULE B

Development of Actuarial Value of Assets
Retirement Benefits

	Valuation date June 30:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 259,791,575	$ 241,800,328				
B.	Market Value End of Year	248,559,040	260,763,486				
C.	Market Value Beginning of Year	252,896,868	248,559,040				
D.	Cash Flow						
	D1. Contributions	22,994,693	25,284,602				
	D2. Benefit Payments	(50,589,396)	(53,239,125)				
	D3. Administrative Expenses	(183,930)	(214,953)				
	D4. Investment Expenses	(998,995)	(1,020,182)				
	D5. Net	(28,777,628)	(29,189,658)				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	24,439,800	41,394,104				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	19,522,080	19,191,940				
	E4. Amount for Phased-In Recognition	4,917,720	22,202,164				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	983,544	4,440,433	0	0	0	0
	F2. First Prior Year	(3,810,203)	983,544	4,440,433	0	0	0
	F3. Second Prior Year	4,929,792	(3,810,203)	983,544	4,440,433	0	0
	F4. Third Prior Year	4,395,559	4,929,792	(3,810,203)	983,544	4,440,433	0
	F5. Fourth Prior Year	(15,234,391)	4,395,559	4,929,792	(3,810,203)	983,544	4,440,433
	F6. Total Recognized Investment Gain	(8,735,699)	10,939,125	6,543,566	1,613,774	5,423,977	4,440,433
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 241,800,328	$ 242,741,735				
H.	Difference Between Market & Actuarial Values	$ 6,758,712	$ 18,021,751	$ 11,478,185	$ 9,864,411	$ 4,440,433	$ 0

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

Development of Actuarial Value of Assets
Insurance Benefits

	Valuation date June 30:	2013	2014	2015	2016	2017	2018
A.	Actuarial Value Beginning of Year	$ 124,372,072	$ 136,321,060				
B.	Market Value End of Year	142,830,916	165,167,805				
C.	Market Value Beginning of Year	125,567,846	142,830,916				
D.	Cash Flow						
	D1. Contributions	17,076,979	14,574,060				
	D2. Benefit Payments	(12,545,291)	(12,687,531)				
	D3. Administrative Expenses	(183,991)	(57,433)				
	D4. Investment Expenses	(423,944)	(647,239)				
	D5. Net	3,923,753	1,181,857				
E.	Investment Income						
	E1. Market Total: B.-C.-D5.	13,339,317	21,155,032				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	10,323,925	11,787,512				
	E4. Amount for Phased-In Recognition	3,015,392	9,367,520				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	603,078	1,873,504	0	0	0	0
	F2. First Prior Year	(1,774,183)	603,078	1,873,504	0	0	0
	F3. Second Prior Year	3,818,155	(1,774,183)	603,078	1,873,504	0	0
	F4. Third Prior Year	1,783,777	3,818,155	(1,774,183)	603,078	1,873,504	0
	F5. Fourth Prior Year	(6,729,517)	1,783,777	3,818,155	(1,774,183)	603,078	1,873,504
	F6. Total Recognized Investment Gain	(2,298,690)	6,304,331	4,520,554	702,399	2,476,582	1,873,504
G.	Actuarial Value End of Year:						
	A.+D5.+E3.+F6.	$ 136,321,060	$ 155,594,760				
H.	Difference Between Market & Actuarial Values	$ 6,509,856	$ 9,573,045	$ 5,052,491	$ 4,350,092	$ 1,873,504	$ 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 members are as follows and include inflation at 4.50% per annum:

	Annual Rates of		
Service	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:

		Death**			Service Retirement		
Age	Withdrawal and Vesting*	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.

	Trend	
Fiscal Year Ended	Under Age 65	Age 65 and Over
2015	7.75%	6.00%
2016	6.75%	5.75%
2017	6.25%	5.50%
2018	5.75%	5.25%
2019	5.25%	5.00%
2020 and beyond	5.00%	5.00%

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, 2014				
	Single	Parent Plus	Couple	Family
Total Premiums				
LivingWell CDHP	$733.88	$1,045.20	$1,603.94	$1,785.16
LivingWell PPO	$699.28	$995.94	$1,528.34	$1,701.04
Standard PPO	$656.28	$934.70	$1,434.36	$1,596.42
Standard CDHP	$641.50	$913.66	$1,402.06	$1,560.48

Effective January 1, 2015				
	Single	Parent Plus	Couple	Family
Total Premiums				
LivingWell CDHP	$689.28	$950.62	$1,282.84	$1,432.06
LivingWell PPO	$708.56	$1,007.46	$1,543.58	$1,716.92
Standard PPO	$665.40	$946.88	$1,451.56	$1,615.30
Standard CDHP	$650.92	$913.28	$1,406.14	$1,566.20

MEDICAL INSURANCE RATES
MEDICARE ELIGIBLE

Effective January 1, 2015	
Available Plan	**Premium**
Kentucky Retirement System Health Plan - Medical Only	$162.00
Kentucky Retirement System Health Plan - Essential	$77.76
Kentucky Retirement System Health Plan - Premium	$244.25

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

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 but before 1/1/2014

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.

Normal Retirement (continued):

Members whose participation began on or after 1/1/2014

Age Requirement	60
Service Requirement	At least 60 months of hazardous duty service credit or 25 or more years of service, with no age requirement
Amount	Each year that a member is an active contributing member to the System, the member and the member's employer will contribute 8.00% and 7.50% of creditable compensation respectively into a hypothetical account. This hypothetical account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the previous year. Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

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 but before 1/1/2014

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.
Members whose participation began on or after 8/1/2004 but before 1/1/2014	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.
Members whose participation began on or after 1/1/2014	The hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or an annuity equal to the larger of 25% of the member's monthly final rate of pay or the annuitized hypothetical account into a single life annuity option.

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. Recontribution of refunds and omitted service purchases are the exception to this rule for service requirement.
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 but before 1/1/2014

Age Requirement	None
Service Requirement	60 months.
Amount	Normal retirement benefit deferred to normal retirement age or reduced benefit payable at early retirement age.

Members whose participation began on or after 1/1/2014

Age Requirement	None
Service Requirement	60 months.
Amount	Upon termination the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or the member can elect to leave the hypothetical account balance in the System. If the member does not withdraw the account balance, it will continue to earn 4% interest. Upon reaching normal retirement age the member can apply for retirement and receive the account balance as a lump sum payment or annuitize the account balance into a single life annuity.

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

Members whose participation began before 1/1/2014

Requirement	Eligible for Normal or Early Retirement, or any age in active employment with 60 months service, or any age and not in active employment with at least 144 months of 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.

Members whose participation began on or after 1/1/2014

Requirement	60 months service
Amount	The maximum of the benefit equal to the benefit the member would have received had the member retired on the day before 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):

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

Member Contributions:

Members whose participation began before 9/1/2008	8% of all creditable compensation. Interest paid on the members' accounts is currently set at 2.5% and per statute, shall not be less than 2.0%. Member entitled to a full refund of contributions with interest.
Members whose participation began on or after 9/1/2008 and up to 1/1/2014	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.
Members whose participation began on or after 1/1/2014	9% of all creditable compensation, with 8% being credited to the member's account and 1% deposited to the KRS 401(h) Account. Member entitled to a full refund of contributions and interest on the member's portion of the hypothetical 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 lifetime 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*
0 – 3 years	0%
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 retirement benefit.*

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 $18.91 per month for each year of earned service for retirees. Upon the retiree's death, the surviving spouse will receive $12.61 per month for each year of earned. These amounts are shown as of the valuation date and will be increased annually by 1.5%.

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	2009	2010	2011	2012	2013	2014
			Number			
Beginning of Year	1,135	1,184	1,223	1,263	1,299	1,346
Added	75	54	52	52	63	95
Removed	26	15	12	16	16	28
End of Year	1,184	1,223	1,263	1,299	1,346	1,413
			Annual Allowances			
Beginning of Year	$ 41,293,017	$ 44,273,937	$ 45,515,797	$ 47,467,404	$ 49,887,093	$ 50,905,789
Added	3,380,331	1,543,665	2,341,589	3,026,513	1,471,331	3,360,043
Removed	399,410	301,805	389,982	606,825	452,635	833,386
End of Year	$ 44,273,937	$ 45,515,797	$ 47,467,404	$ 49,887,093	$ 50,905,789	$ 53,432,446
% Increase in Allowances	7.22%	2.80%	4.29%	5.10%	2.04%	4.96%
Average Annual Allowance	$ 37,394	$ 37,217	$ 37,583	$ 38,404	$ 37,820	$ 37,815

Retired Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	129	$ 400,493.98	11	$ 30,351.29	140	$ 430,845.27
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	129	415,733.20	1	4,813.66	130	420,546.86
66-2/3% to Beneficiary	82	313,461.27	2	7,515.61	84	320,976.88
50% to Beneficiary	87	319,046.51	1	2,604.67	88	321,651.18
Pop-up Option	519	1,863,097.03	5	14,961.79	524	1,878,058.82
10 Years Certain	1	4,863.68	0	0.00	1	4,863.68
10 Years Certain & Life	35	109,456.34	2	5,033.86	37	114,490.20
Social Security Option						
Age 62 Basic	31	84,923.54	0	0.00	31	84,923.54
Age 62 Survivorship	128	279,200.44	1	7,930.47	129	287,130.91
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	18	48,359.23	1	3,918.67	19	52,277.90
20 Years Certain & Life	35	110,326.50	2	3,978.81	37	114,305.31
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	466.41	2	466.41
PLSO 12 Month Survivor	6	20,781.22	0	0.00	6	20,781.22
PLSO 24 Month Survivor	4	5,952.60	0	0.00	4	5,952.60
PLSO 36 Month Survivor	9	16,914.11	0	0.00	9	16,914.11
Total	1,213	$ 3,992,609.65	28	$ 81,575.24	1,241	$ 4,074,184.89

Beneficiary Lives Summary June 30, 2014

	Male Lives		Female Lives		Total	
	Number	Monthly Benefits	Number	Monthly Benefits	Number	Monthly Benefits
Basic Form	2	$ 2,133.54	3	$ 2,208.08	5	$ 4,341.62
Straight Life (Old Plan)	0	0.00	0	0.00	0	0.00
Joint & Survivor						
100% to Beneficiary	7	6,090.54	55	148,287.63	62	154,378.17
66-2/3% to Beneficiary	2	1,206.05	9	16,826.45	11	18,032.50
50% to Beneficiary	1	1,083.53	13	18,707.03	14	19,790.56
Pop-up Option	2	865.09	30	83,676.27	32	84,541.36
10 Years Certain	1	591.51	0	0.00	1	591.51
10 Years Certain & Life	1	389.49	0	0.00	1	389.49
Social Security Option						
Age 62 Basic	0	0.00	2	2,281.46	2	2,281.46
Age 62 Survivorship	1	918.93	37	71,702.79	38	72,621.72
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	0	0.00	0	0.00	0	0.00
20 Years Certain & Life	2	7,707.15	3	6,381.72	5	14,088.87
5 Years Certain	0	0.00	0	0.00	0	0.00
PLSO 12 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 24 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 36 Month Basic	0	0.00	0	0.00	0	0.00
PLSO 12 Month Survivor	0	0.00	0	0.00	0	0.00
PLSO 24 Month Survivor	0	0.00	1	7,461.68	1	7,461.68
PLSO 36 Month Survivor	0	0.00	0	0.00	0	0.00
Total	19	$ 20,985.83	153	$ 357,533.11	172	$ 378,518.94

Retired and Beneficiary Information June 30, 2014
Tabulated by Attained Ages

	Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
Attained Age	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	29	$ 1,084,515	11	$ 185,613	13	$ 67,486	53	$ 1,337,614
45-49	123	4,903,733	5	106,017	3	41,361	131	5,051,111
50-54	168	6,997,776	6	83,619	5	63,684	179	7,145,079
55-59	137	5,876,871	8	141,083	12	182,617	157	6,200,571
60-64	251	10,548,374	7	100,500	23	571,550	281	11,220,424
65-69	254	9,957,930	9	211,085	29	841,154	292	11,010,169
70-74	108	3,850,864	1	1,145	21	585,744	130	4,437,753
75-79	63	2,270,223	4	102,756	14	499,576	81	2,872,555
80-84	38	1,660,746	1	5,780	25	838,938	64	2,505,464
85-89	13	549,409	0	0	15	491,122	28	1,040,531
90 & Over	5	252,180	0	0	12	358,995	17	611,175
Totals	1,189	$ 47,952,621	52	$ 937,598	172	$ 4,542,227	1,413	$ 53,432,446

Total Active Members as of June 30, 2014
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	7								7
Avg Pay	$38,563								$38,563
25-29	108	14							122
Avg Pay	$43,665	$47,105							$44,059
30-34	58	77	23						158
Avg Pay	$43,540	$48,133	$52,372						$47,064
35-39	26	48	112	18					204
Avg Pay	$44,352	$48,871	$53,229	$55,871					$51,305
40-44	10	21	64	95	34	4			228
Avg Pay	$46,139	$48,338	$52,030	$61,129	$60,727	$70,033			$56,835
44-49	4	12	20	24	23	7	2		92
Avg Pay	$46,336	$48,090	$51,651	$60,202	$67,168	$59,269	$88,216		$58,440
50-54		5	6	10	6	1	2	1	31
Avg Pay		$49,288	$48,863	$59,880	$61,198	$78,898	$82,096	$85,556	$59,169
55-59		2	1	1		1	1	5	11
Avg Pay		$49,261	$48,303	$66,781		$59,397	$75,919	$77,343	$66,876
60-64								1	1
Avg Pay								$78,136	$78,136
65-69								1	1
Avg Pay								$85,352	$85,352
70 & over									
Avg Pay									
Totals	213	179	226	148	63	13	5	8	855
Avg Pay	$43,713	$48,317	$52,525	$60,293	$63,123	$64,101	$83,309	$79,470	$52,182

Kentucky Employees' Retirement System
2014 Actuarial Valuation Results

December 4, 2014

Benefit Financing

- Basic Retirement Funding Equation

$$C + I = B + E$$

C = Contributions
I = Investment Income
B = Benefits Paid
E = Expenses (administration)

Combined Funded Status

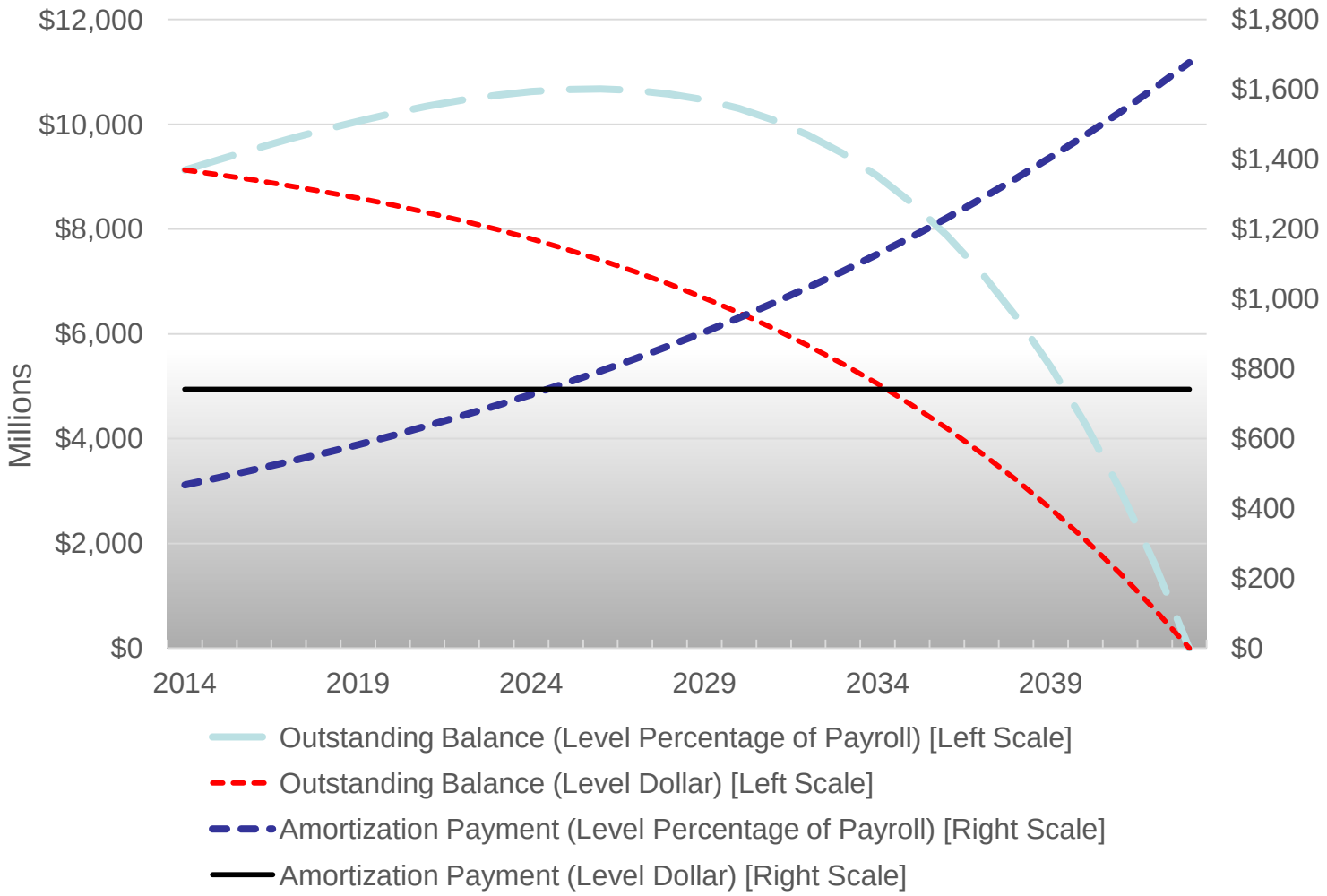
Fund	June 30, 2014			June 30, 2013		
	Pension	Insurance	Combined	Pension	Insurance	Combined
KERS Non-Hazardous	21.0%	27.9%	22.1%	23.2%	23.4%	23.2%
KERS Hazardous	64.6%	105.6%	78.0%	64.5%	96.2%	74.9%
CERS Non-Hazardous	62.6%	70.0%	64.2%	60.1%	66.6%	61.5%
CERS Hazardous	59.8%	66.8%	62.0%	57.7%	62.1%	59.1%
SPRS	35.6%	66.4%	43.5%	37.1%	61.3%	43.3%

Pension Results

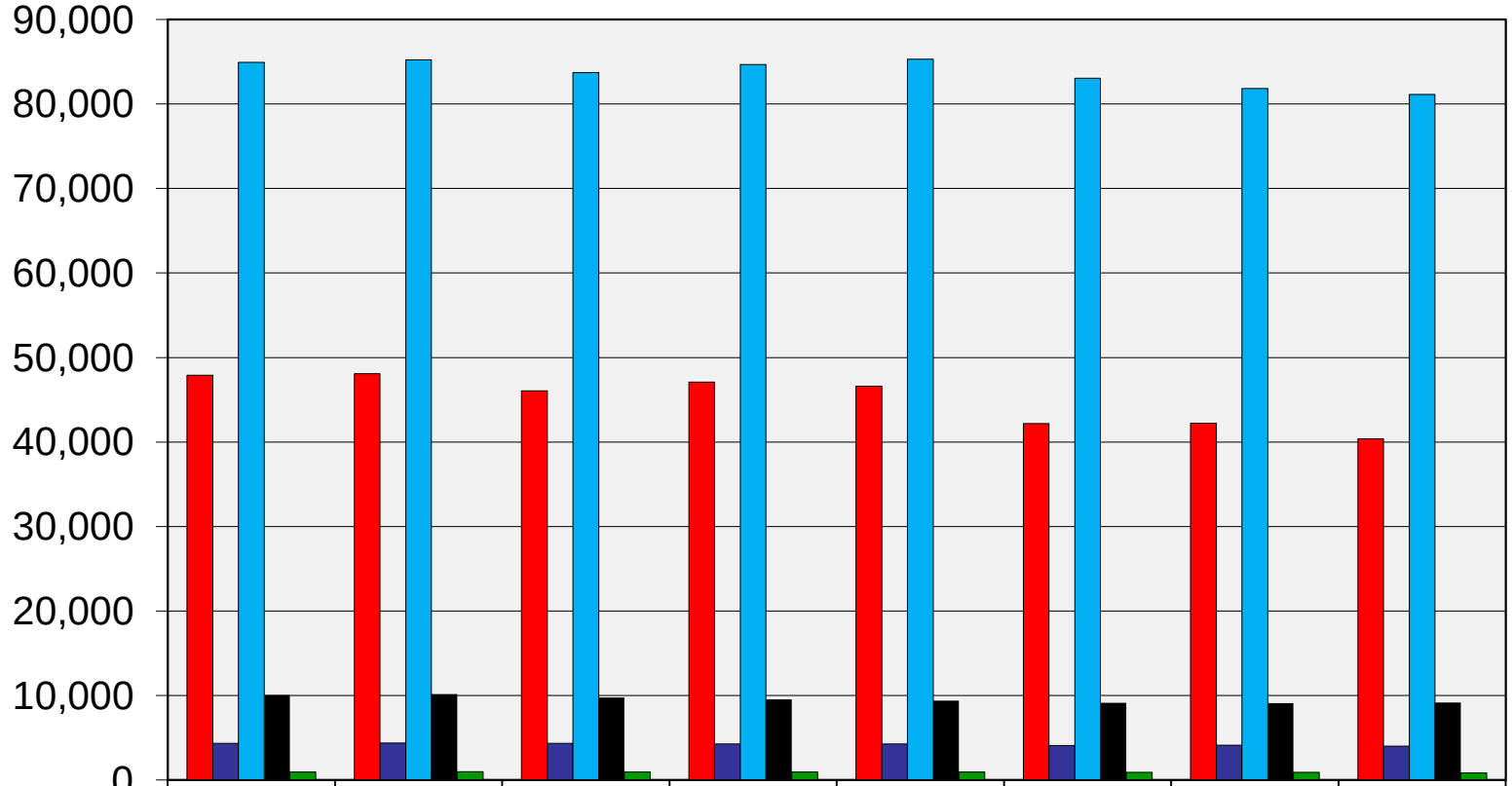
Comments on Pension Valuations

- Market value investment return was greater than anticipated for all Funds
- Actuarial value investment return was greater than expected for all Funds
- Increase in funded ratios for all Funds except for the KERS Non-Hazardous and SPRS
- Per statute, amortization period reset to 30 years effective June 30, 2013
- Amortization period is 29 years as of June 30, 2014 using level percentage of payroll financing
- Recommended KERS and SPRS contribution rates are set biennially beginning with 14/15 and 15/16 fiscal years based on the July 1, 2013 valuation results
- KERS and SPRS contribution rates as of June 30, 2014 are for informational purposes only.

Amortization Schedule of UAL (KERS Non-Hazardous)

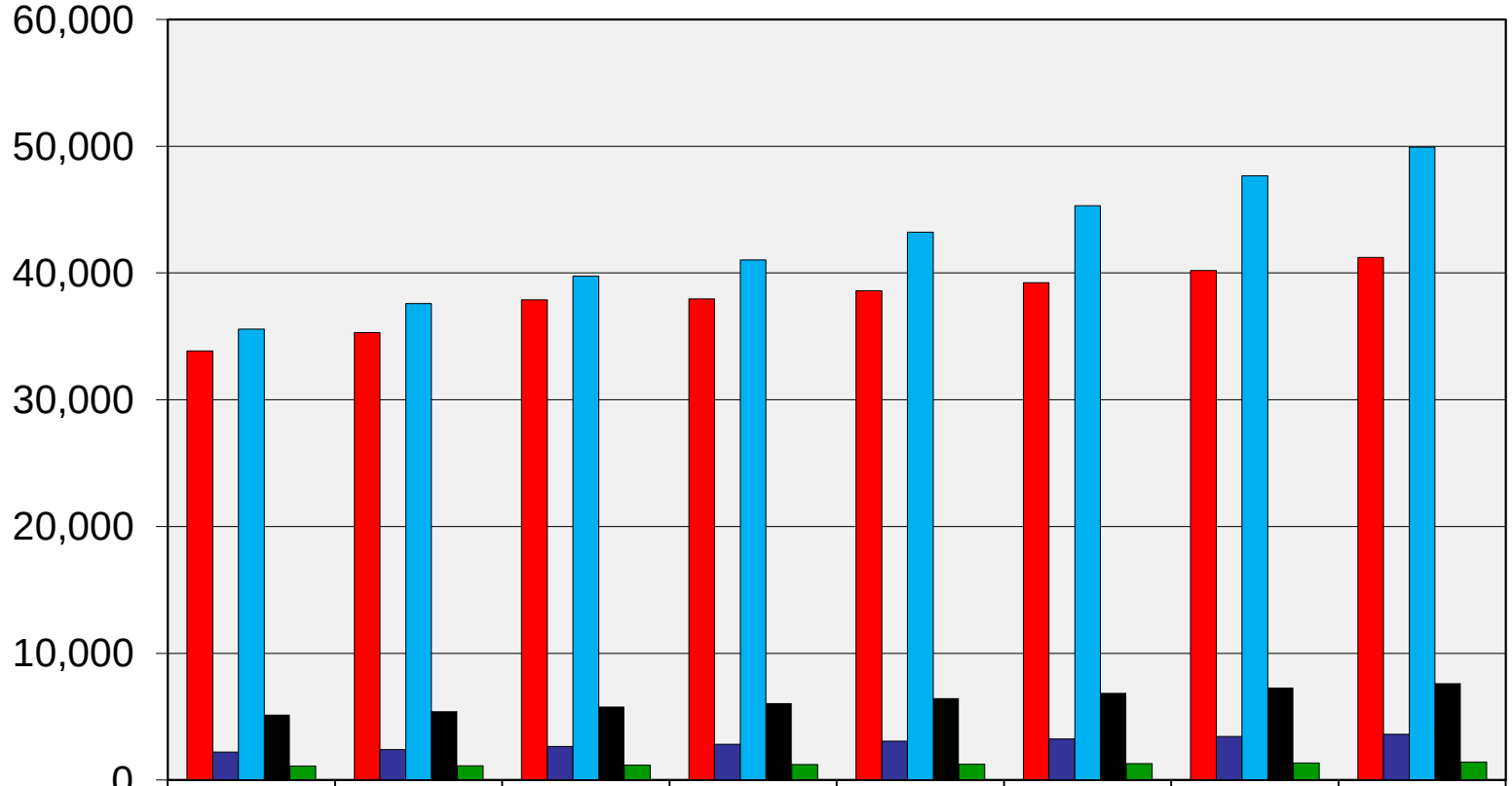


Active Membership



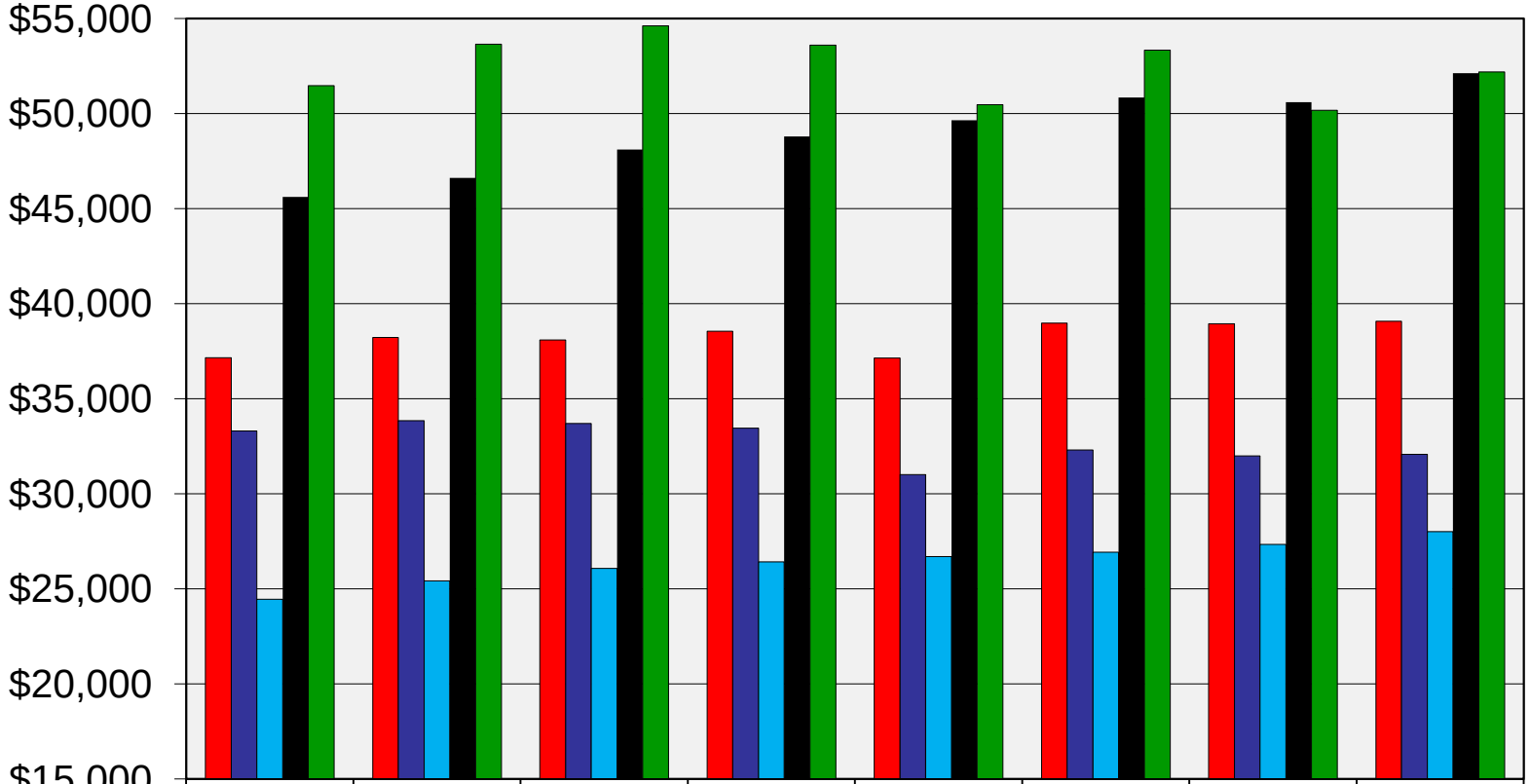
	2007	2008	2009	2010	2011	2012	2013	2014
KERS Non-Hazardous	47,913	48,085	46,060	47,090	46,617	42,196	42,226	40,365
KERS Hazardous	4,349	4,393	4,334	4,291	4,291	4,086	4,127	4,024
CERS Non-Hazardous	84,920	85,221	83,724	84,681	85,285	83,052	81,815	81,115
CERS Hazardous	10,063	10,173	9,757	9,562	9,407	9,130	9,123	9,194
SPRS	957	993	946	961	965	907	902	855

Retired Membership



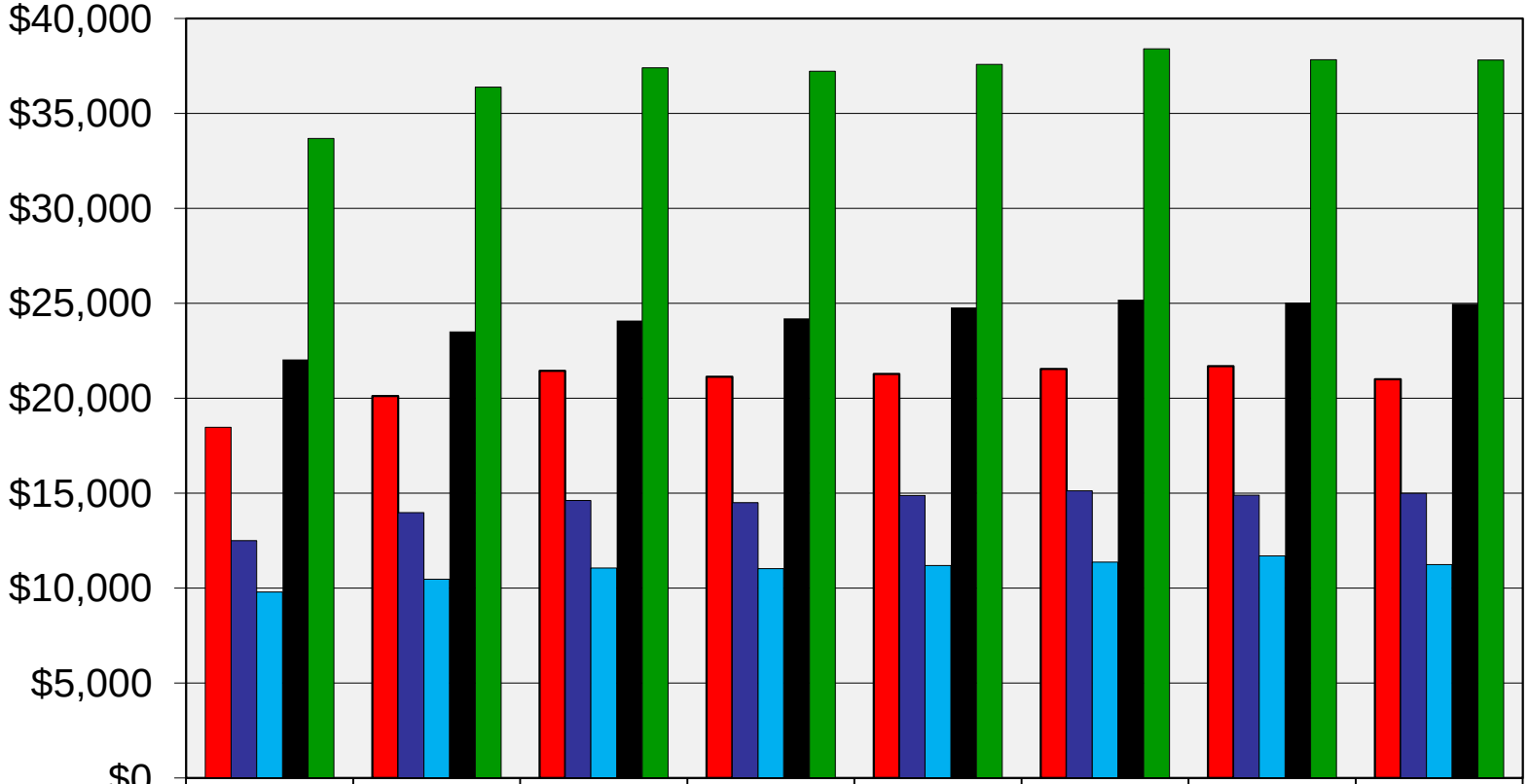
	2007	2008	2009	2010	2011	2012	2013	2014
KERS Non-Hazardous	33,849	35,307	37,883	37,945	38,597	39,226	40,194	41,223
KERS Hazardous	2,202	2,404	2,648	2,835	3,064	3,253	3,430	3,620
CERS Non-Hazardous	35,564	37,579	39,756	41,038	43,211	45,304	47,676	49,935
CERS Hazardous	5,159	5,422	5,808	6,068	6,468	6,878	7,293	7,646
SPRS	1,105	1,135	1,184	1,223	1,263	1,299	1,346	1,413

Average Salary



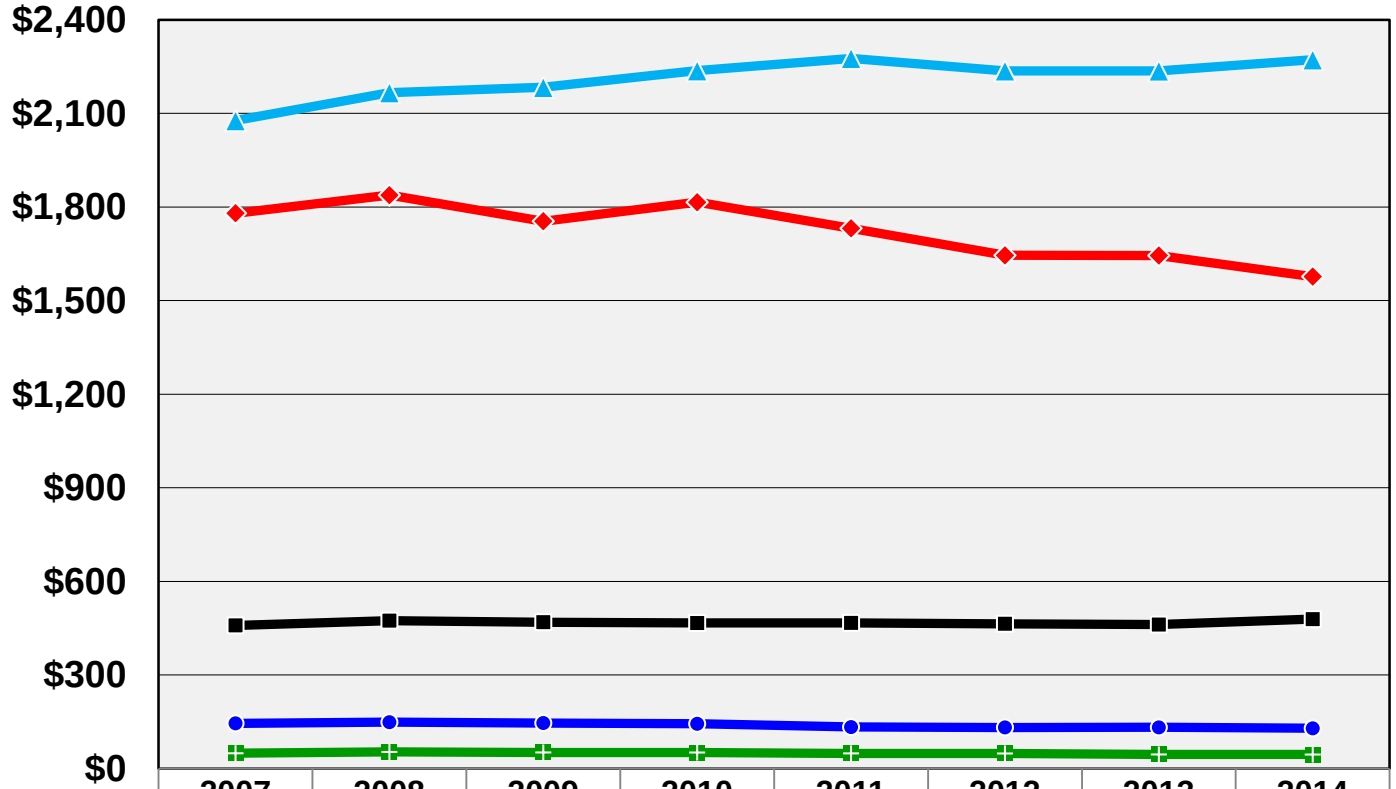
	2007	2008	2009	2010	2011	2012	2013	2014
KERS Non-Hazardous	$37,155	$38,221	$38,090	$38,546	$37,146	$38,982	$38,943	$39,081
KERS Hazardous	$33,304	$33,852	$33,697	$33,456	$31,008	$32,300	$31,988	$32,077
CERS Non-Hazardous	$24,457	$25,423	$26,081	$26,415	$26,694	$26,929	$27,333	$28,013
CERS Hazardous	$45,613	$46,618	$48,100	$48,792	$49,640	$50,847	$50,605	$52,117
SPRS	$51,460	$53,645	$54,609	$53,597	$50,459	$53,332	$50,173	$52,182

Average Benefits



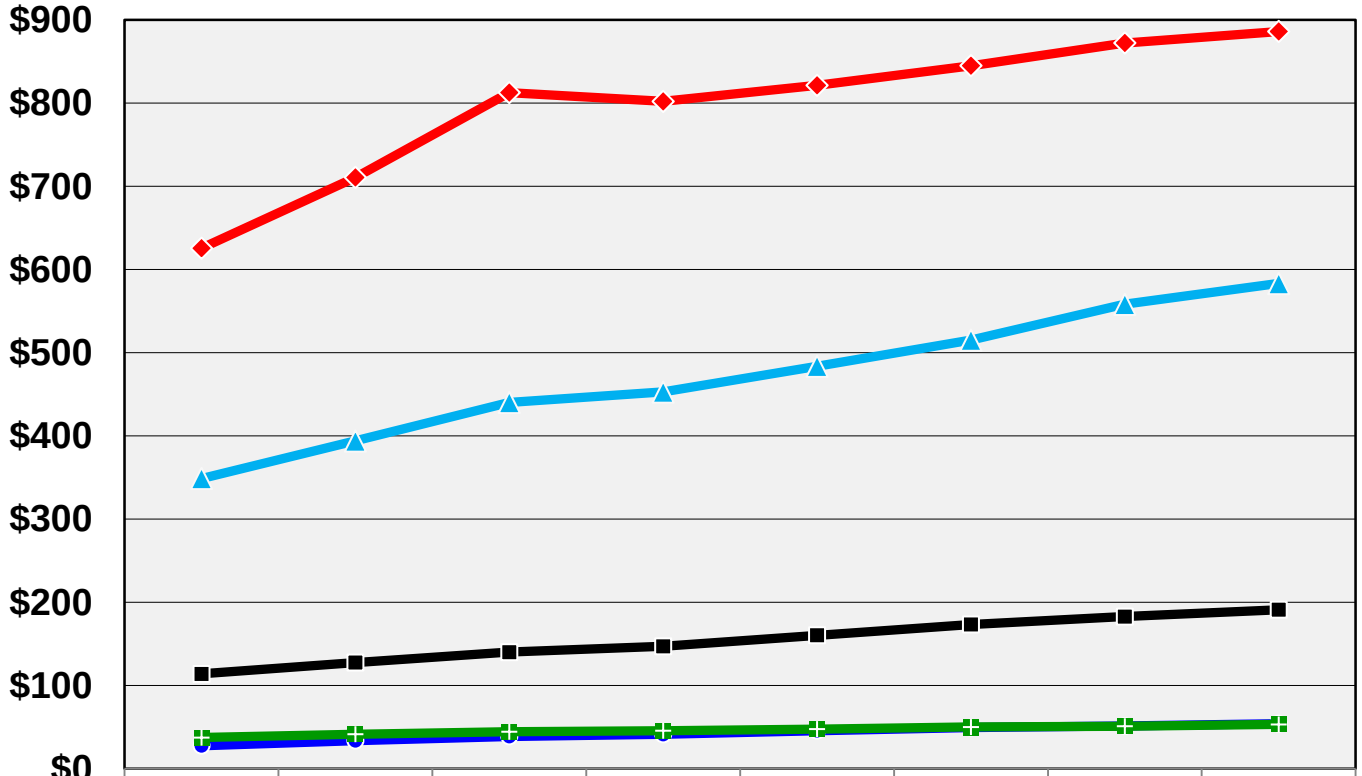
	2007	2008	2009	2010	2011	2012	2013	2014
KERS Non-Hazardous	$18,472	$20,124	$21,449	$21,133	$21,276	$21,539	$21,698	$21,009
KERS Hazardous	$12,502	$13,972	$14,613	$14,503	$14,886	$15,134	$14,905	$14,992
CERS Non-Hazardous	$9,805	$10,478	$11,069	$11,029	$11,191	$11,368	$11,704	$11,246
CERS Hazardous	$22,046	$23,511	$24,085	$24,212	$24,777	$25,185	$25,042	$24,981
SPRS	$33,673	$36,382	$37,394	$37,217	$37,583	$38,404	$37,820	$37,815

Payroll
($ Millions)



	2007	2008	2009	2010	2011	2012	2013	2014
KERS Non-Hazardous	$1,780	$1,838	$1,754	$1,815	$1,732	$1,645	$1,644	$1,577
KERS Hazardous	$145	$149	$146	$144	$133	$132	$132	$129
CERS Non-Hazardous	$2,077	$2,167	$2,184	$2,237	$2,277	$2,237	$2,236	$2,272
CERS Hazardous	$459	$474	$469	$467	$467	$464	$462	$479
SPRS	$49	$53	$52	$52	$49	$48	$45	$45

Benefits
($ Millions)

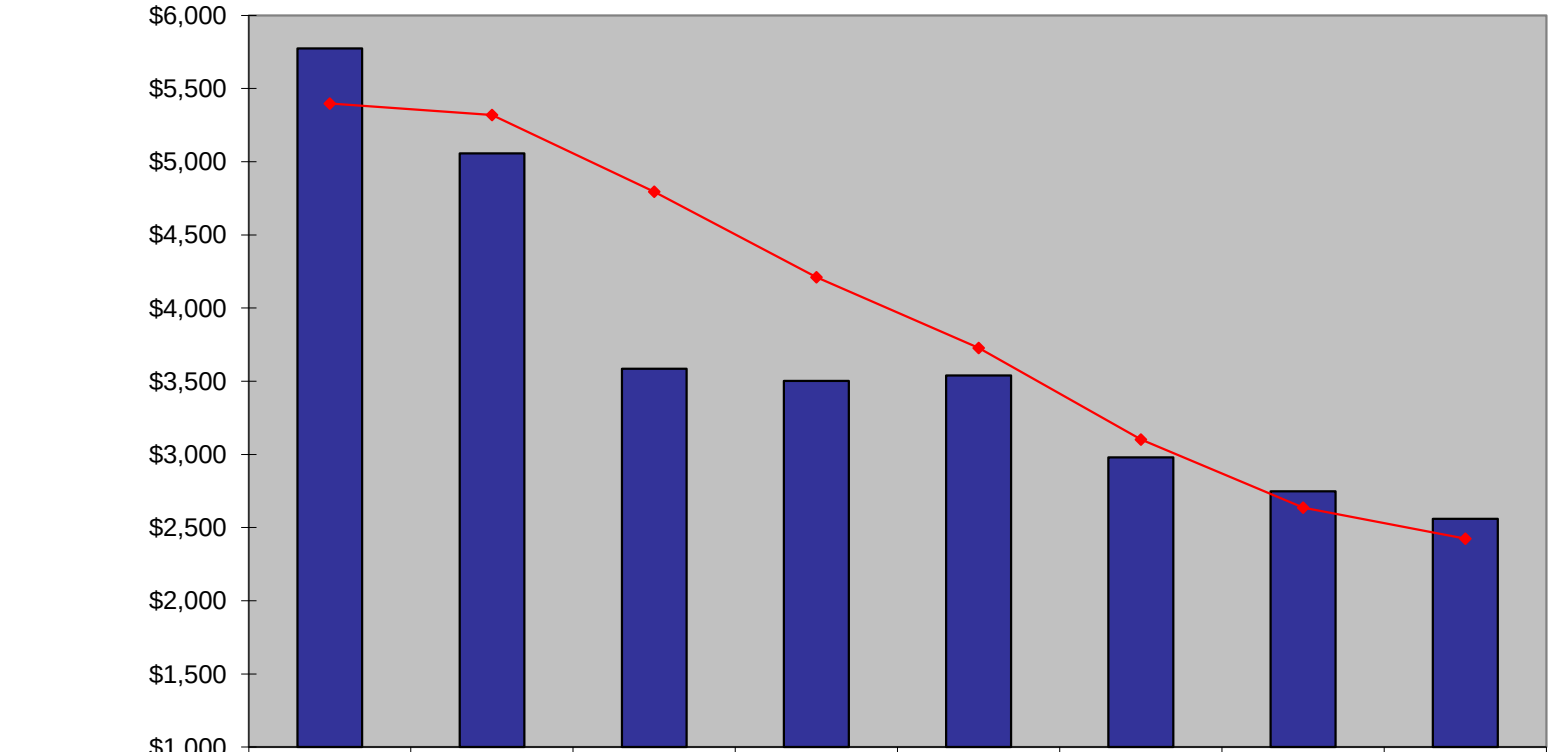


	2007	2008	2009	2010	2011	2012	2013	2014
KERS Non-Hazardous	$625	$711	$813	$802	$821	$845	$872	$886
KERS Hazardous	$28	$34	$39	$41	$46	$49	$51	$54
CERS Non-Hazardous	$349	$394	$440	$453	$484	$515	$558	$583
CERS Hazardous	$114	$127	$140	$147	$160	$173	$183	$191
SPRS	$37	$41	$44	$46	$47	$50	$51	$53

Average Age & Service
June 30, 2014

	KERS		CERS		SPRS
	Non-Hazardous	Hazardous	Non-Hazardous	Hazardous	
Average Age Actives	44.8	40.6	48.1	39.2	37.8
Average Service Actives	10.5	7.4	9.6	10.6	10.9
Average Age Retirees	67.7	63.1	69.5	61.0	61.8
Average Age Disabilities	64.6	58.1	64.1	54.9	56.8
Average Age Beneficiaries	71.1	65.1	68.8	56.9	65.3

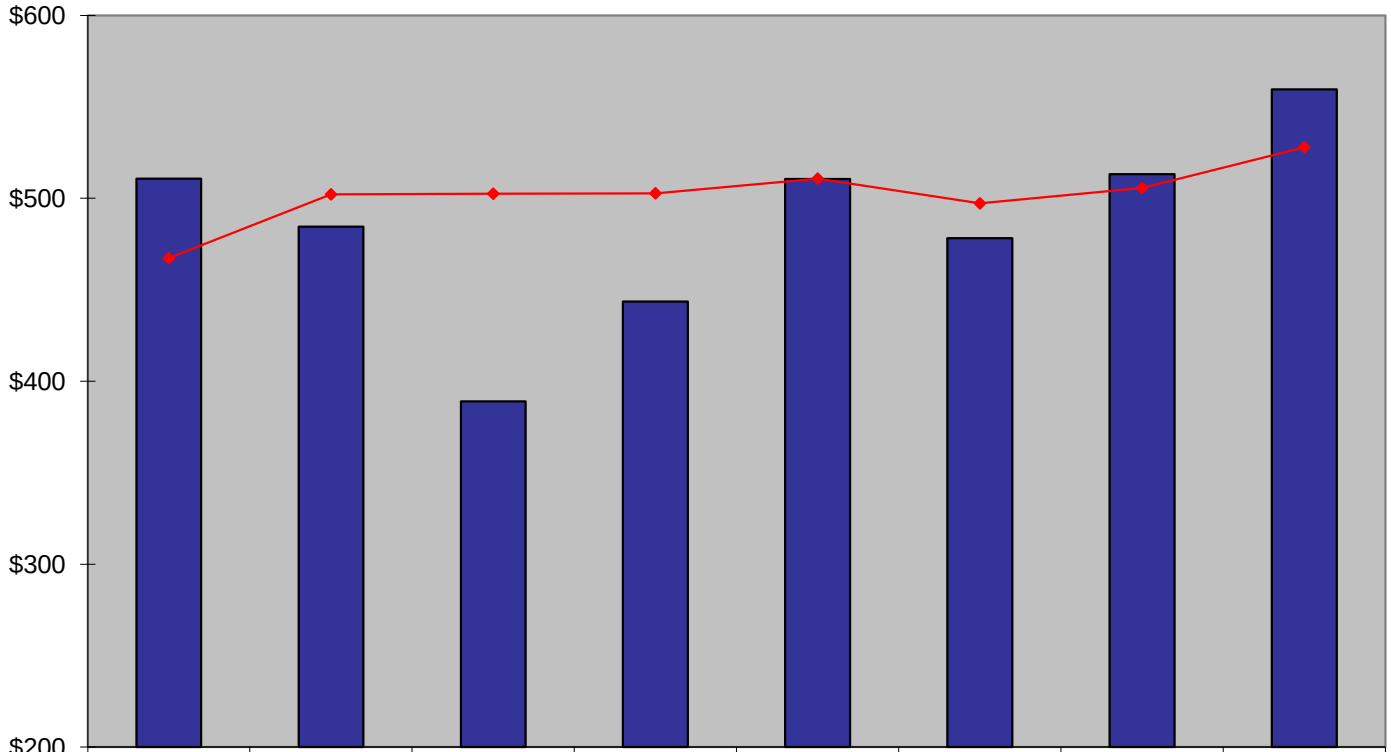
KERS Non-Hazardous Assets ($ Millions)



	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	$5,773	$5,057	$3,584	$3,503	$3,539	$2,980	$2,747	$2,560
Actuarial Value	$5,397	$5,319	$4,795	$4,210	$3,727	$3,101	$2,636	$2,424

Rate of Return	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	15.2%	(3.9)%	(18.3)%	16.1%	18.3%	0.6%	10.5%	13.6%
Actuarial Value	8.9%	8.2%	1.7%	0.8%	2.3%	(1.1)%	2.4%	13.2%

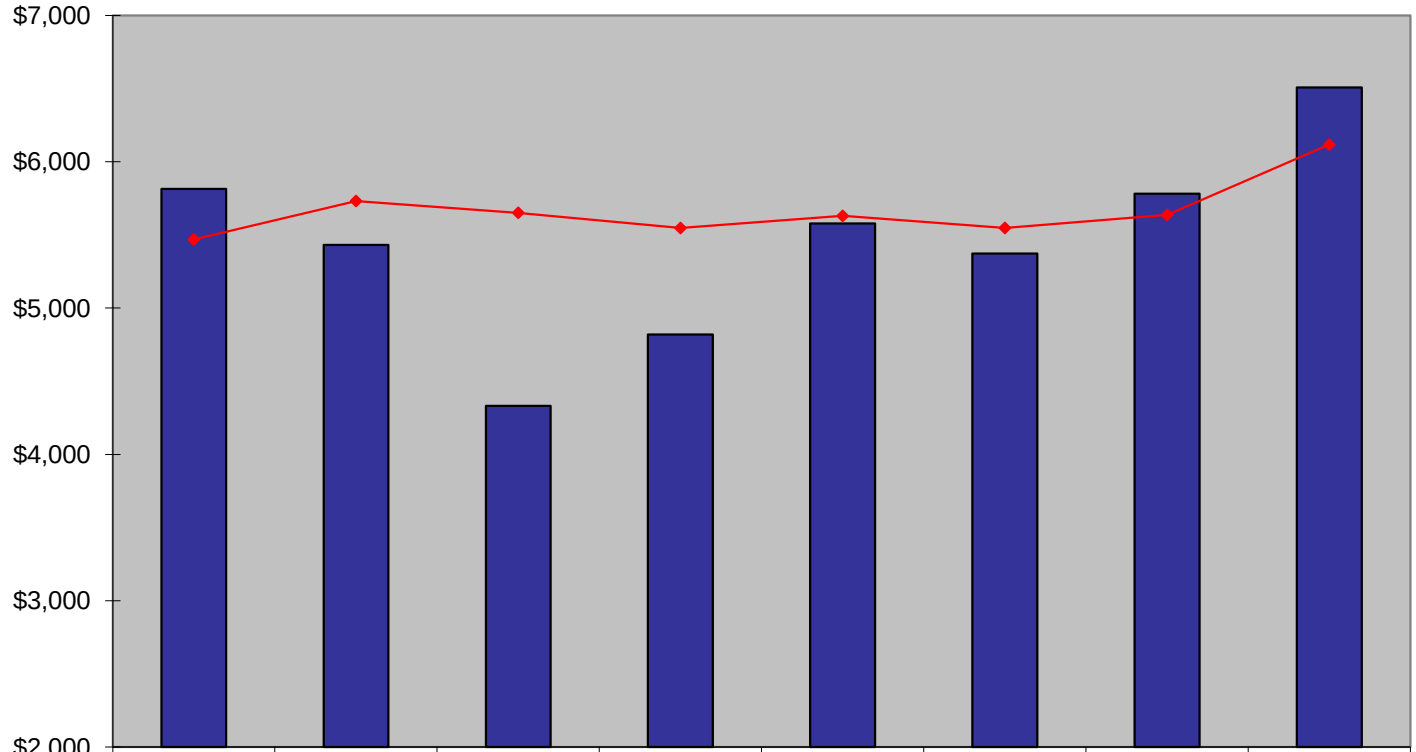
KERS Hazardous Assets ($ Millions)



	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	$511	$484	$389	$444	$511	$478	$513	$560
Actuarial Value	$467	$502	$503	$503	$511	$497	$506	$528

Rate of Return	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	18.1%	(4.0)%	(17.6)%	17.1%	18.9%	(1.9)%	10.3%	16.3%
Actuarial Value	10.4%	8.8%	2.4%	2.6%	5.1%	2.2%	4.9%	11.6%

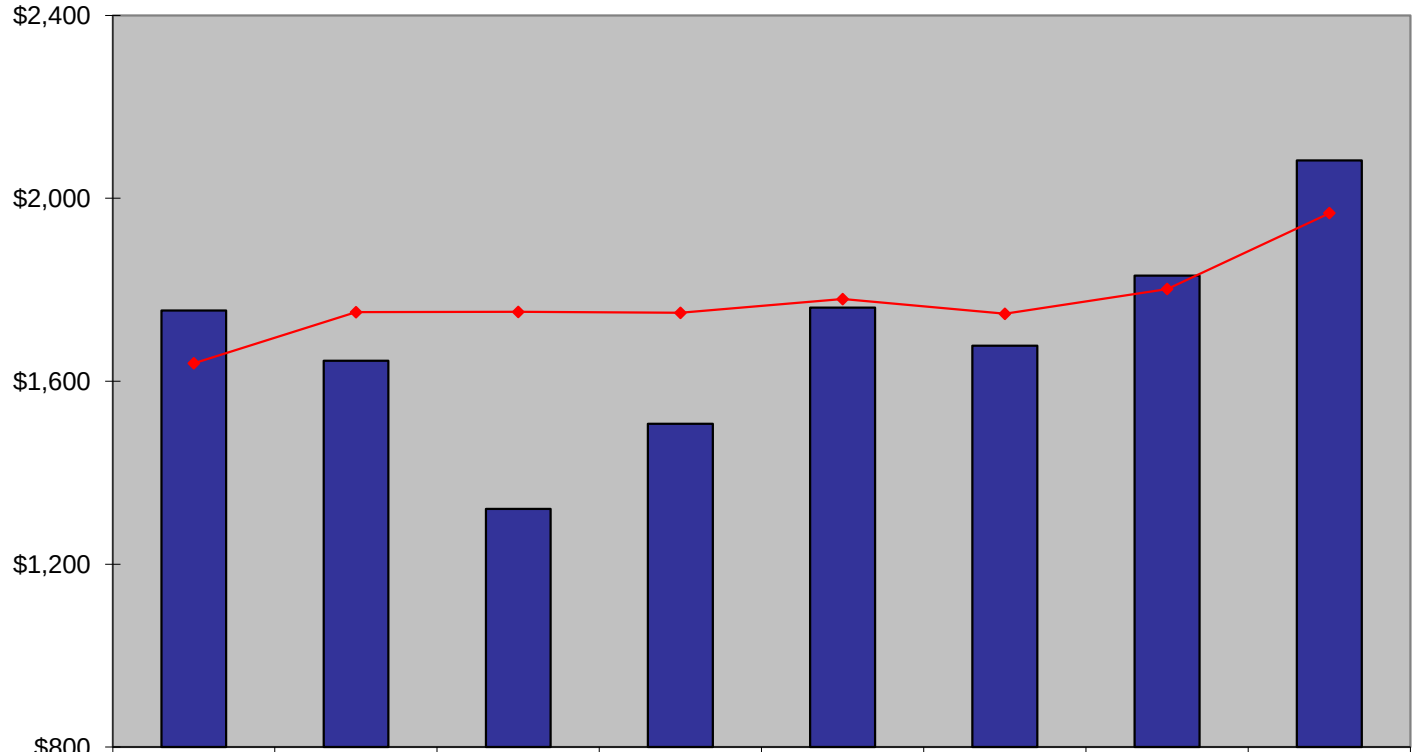
CERS Non-Hazardous Assets ($ Millions)



	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	$5,813	$5,432	$4,331	$4,820	$5,577	$5,373	$5,781	$6,507
Actuarial Value	$5,468	$5,732	$5,651	$5,547	$5,630	$5,547	$5,637	$6,117

Rate of Return	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	15.0%	(3.9)%	(17.4)%	15.8%	18.6%	(0.3)%	10.9%	15.7%
Actuarial Value	8.9%	7.8%	1.8%	1.7%	4.1%	2.2%	5.1%	11.7%

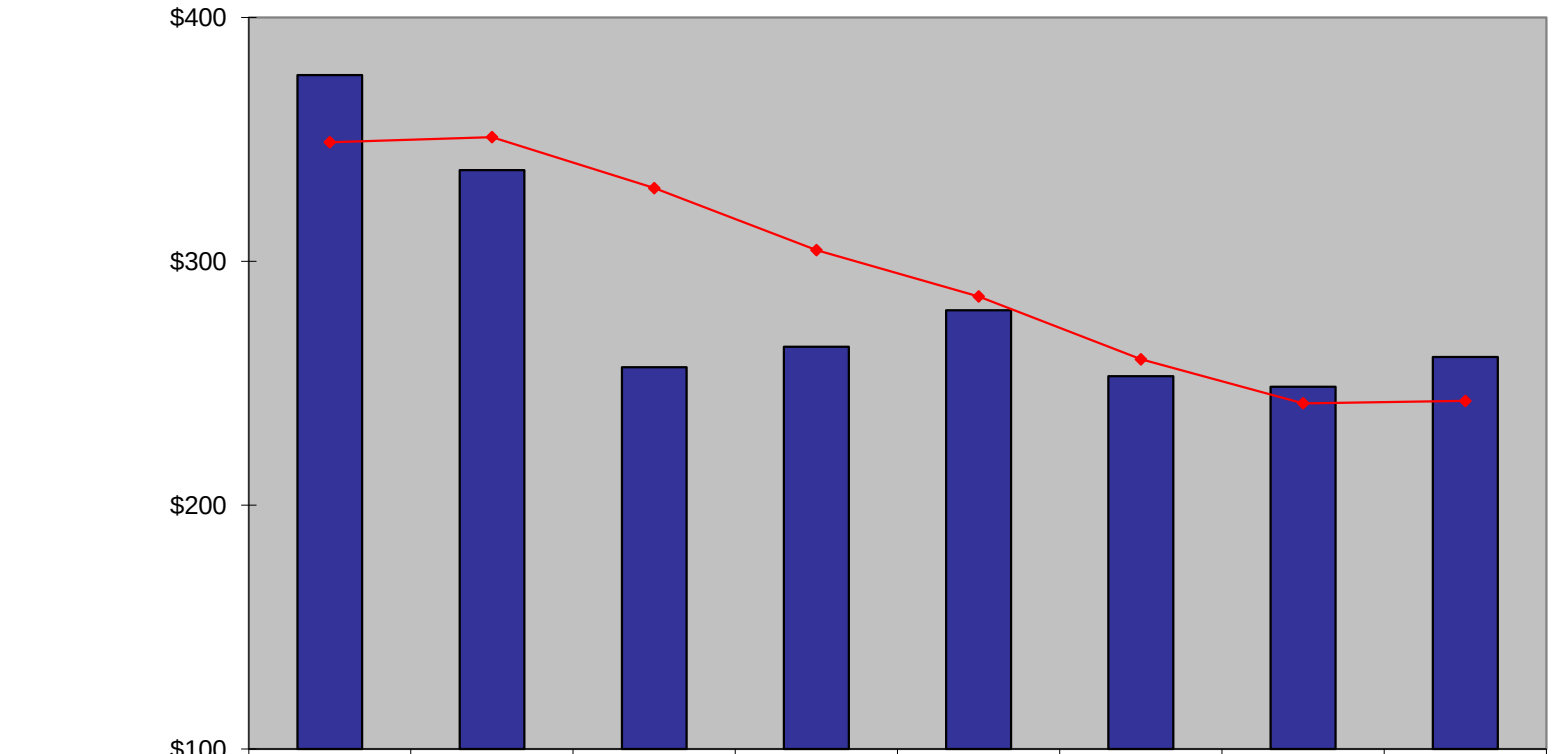
CERS Hazardous Assets
($ Millions)



	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	$1,755	$1,645	$1,321	$1,507	$1,761	$1,678	$1,831	$2,083
Actuarial Value	$1,639	$1,751	$1,751	$1,749	$1,780	$1,747	$1,802	$1,968

Rate of Return	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	15.9%	(5.5)%	(18.5)%	15.7%	19.2%	(1.5)%	10.4%	15.9%
Actuarial Value	9.3%	7.7%	1.4%	1.3%	4.5%	1.7%	4.7%	11.3%

SPRS Assets
($ Millions)



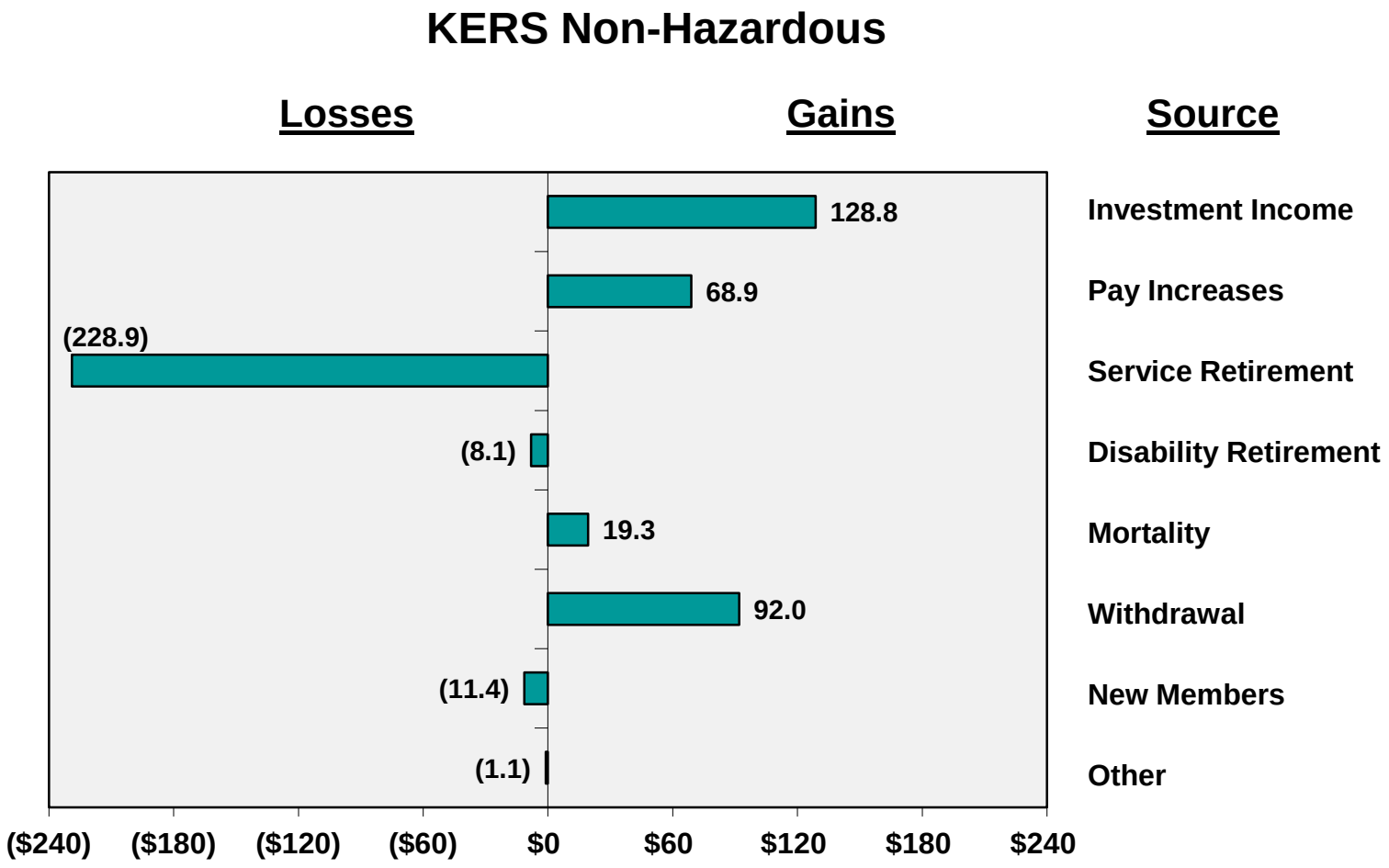
	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	$376	$337	$257	$265	$280	$253	$249	$261
Actuarial Value	$349	$351	$330	$305	$286	$260	$242	$243

Rate of Return	2007	2008	2009	2010	2011	2012	2013	2014
Market Value	14.7%	(3.3)%	(15.9)%	16.9%	17.6%	0.6%	9.8%	17.2%
Actuarial Value	9.4%	8.7%	2.7%	2.4%	4.9%	1.0%	4.4%	12.8%

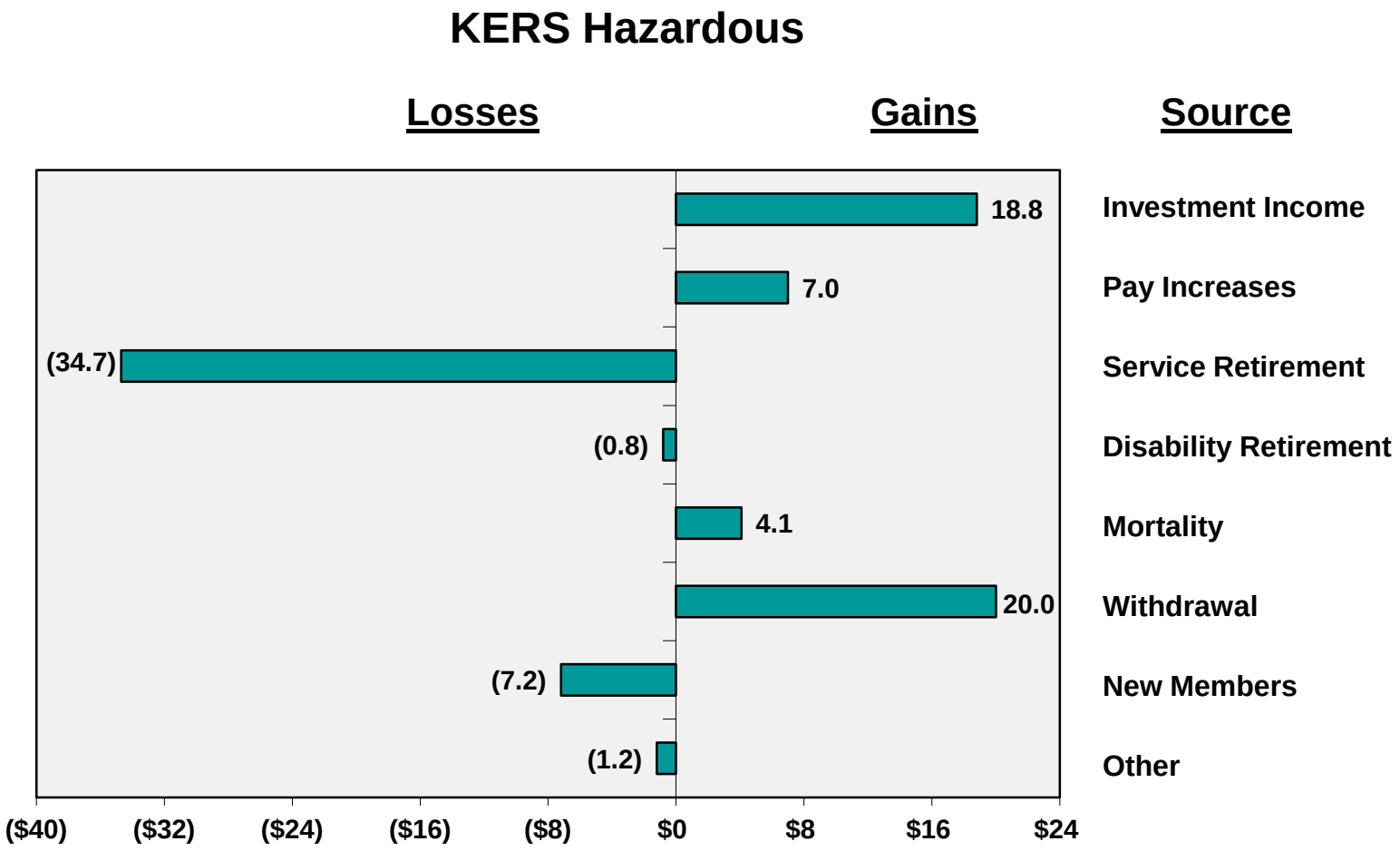
Pension Funding Results

KERS				
	June 30, 2014		June 30, 2013	
	Non-Hazardous	Hazardous	Non-Hazardous	Hazardous
Total Normal Cost Rate	8.40%	13.00%	8.48%	13.24%
Less Member Rate	5.00%	8.00%	5.00%	8.00%
Employer Normal Cost Rate	3.40%	5.00%	3.48%	5.24%
Administrative Expenses	0.70%	0.69%	0.65%	0.55%
Rate to Amortize UAL	29.47%	11.40%	26.71%	10.58%
Total Employer Contribution Rate	33.57%	17.09%	30.84%	16.37%
Unfunded Accrued Liability ($ millions)	$9,126.2	$289.0	$8,750.5	$278.3
Funded Ratio	21.0%	64.6%	23.2%	64.5%
Amortization Period	29	29	30	30

2014 Pension Gain/Loss Analysis
($ Millions)



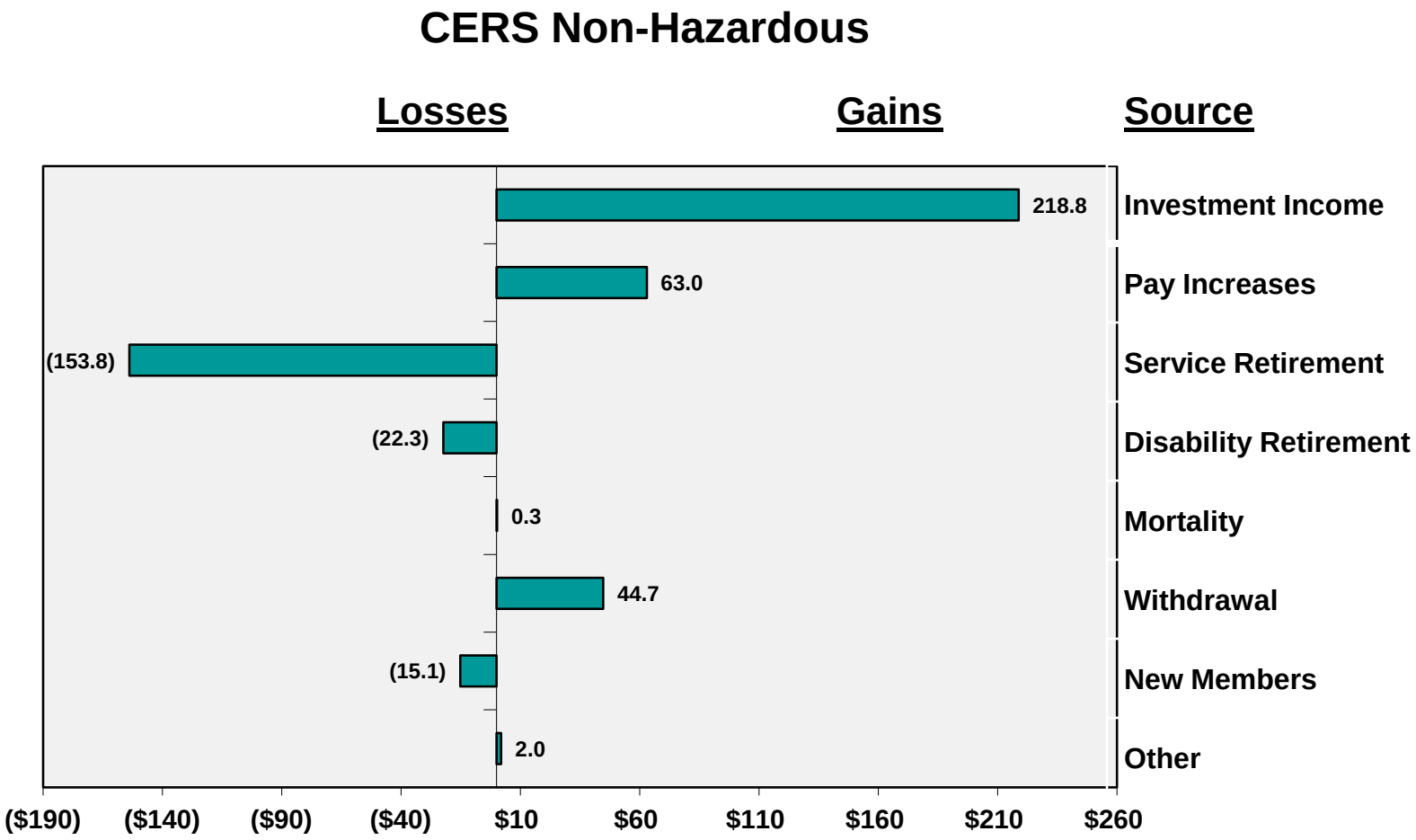
2014 Pension Gain/Loss Analysis
($ Millions)



Pension Funding Results

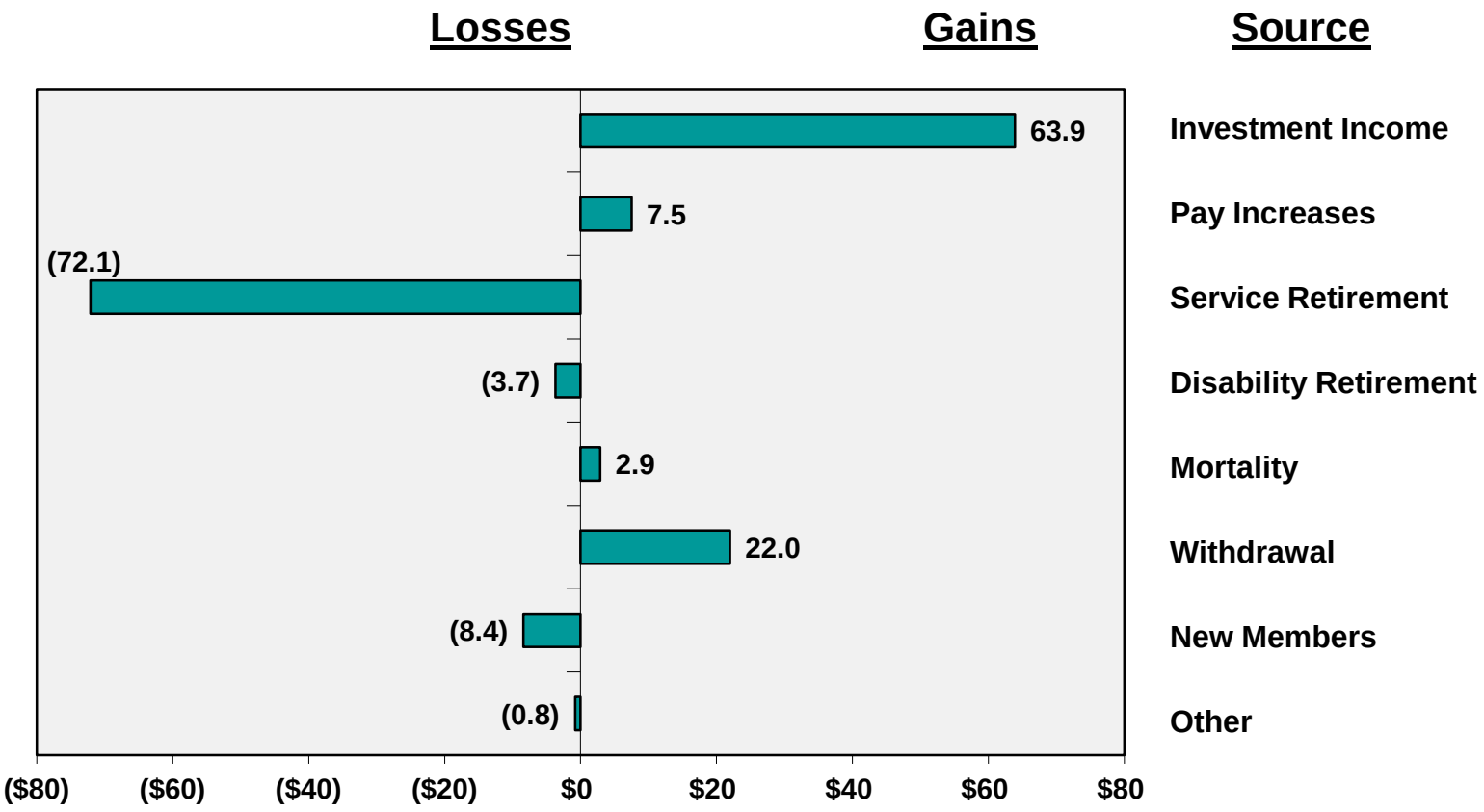
CERS				
	June 30, 2014		June 30, 2013	
	Non-Hazardous	Hazardous	Non-Hazardous	Hazardous
Total Normal Cost Rate	8.42%	13.85%	8.56%	14.09%
Less Member Rate	5.00%	8.00%	5.00%	8.00%
Employer Normal Cost Rate	3.42%	5.85%	3.56%	6.09%
Administrative Expenses	0.81%	0.36%	0.79%	0.26%
Rate to Amortize UAL	8.19%	14.05%	8.40%	14.38%
Total Employer Contribution Rate	12.42%	20.26%	12.75%	20.73%
Unfunded Accrued Liability ($ millions)	$3,655.4	$1,321.2	$3,741.8	$1,322.5
Funded Ratio	62.6%	59.8%	60.1%	57.7%
Amortization Period	29	29	30	30

2014 Pension Gain/Loss Analysis
($ Millions)



2014 Pension Gain/Loss Analysis
($ Millions)

CERS Hazardous

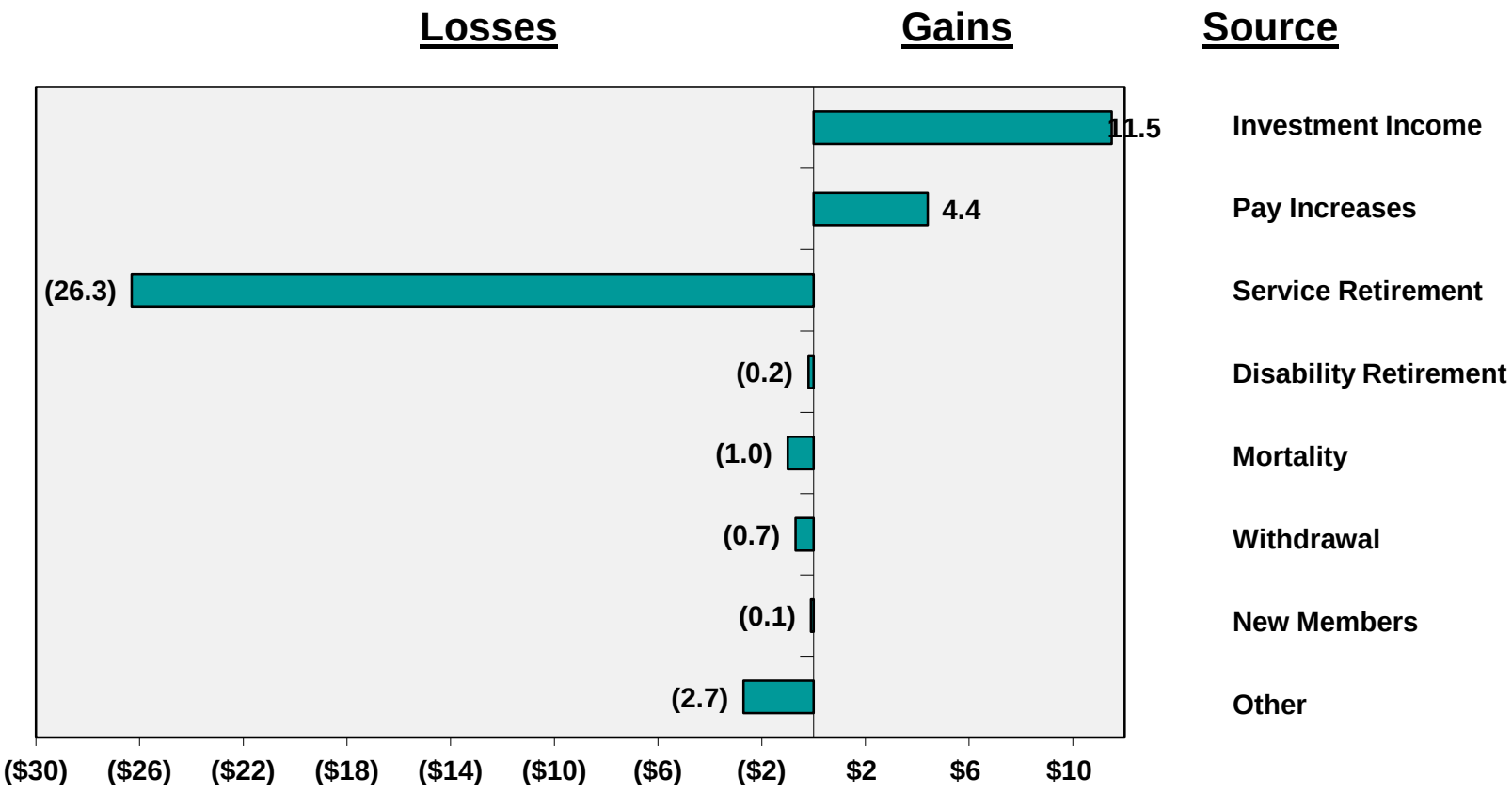


Pension Funding Results

SPRS		
	June 30, 2014	June 30, 2013
Total Normal Cost Rate	15.91%	16.05%
Less Member Rate	8.00%	8.00%
Employer Normal Cost Rate	7.91%	8.05%
Administrative Expenses	0.48%	0.41%
Rate to Amortize UAL	50.05%	45.44%
Total Employer Contribution Rate	58.44%	53.90%
Unfunded Accrued Liability ($ millions)	$438.4	$409.8
Funded Ratio	35.6%	37.1%
Amortization Period	29	30

2013 Pension Gain/Loss Analysis
($ Millions)

SPRS



Insurance Results

Comments on Insurance Valuation

- Market value investment return was greater than anticipated for all Funds
- Actuarial value investment return was greater than expected for all Funds
- Increase in funded ratios for all Funds
- Per statute, amortization period reset to 30 years effective June 30, 2013
- Amortization of 29 years for June 30, 2014
- Recommended KERS and SPRS contribution rates are set biennially beginning with 14/15 and 15/16 fiscal years based on the July 1, 2013 valuation results
- KERS and SPRS contribution rates as of June 30, 2014 are for informational purposes only.

Comments on Insurance Valuation

Health Care Trend Assumption

Fiscal Year Ending	Under Age 65	Age 65 and Over
2015	7.75%	6.00%
2016	6.75%	5.75%
2017	6.25%	5.50%
2018	5.75%	5.25%
2019	5.25%	5.00%
2020 and beyond	5.00%	5.00%

- 2015 pre-Medicare rates less than 2014 rates with assumed trend.
- 2015 Medicare-eligible Premium and Essential plans rate larger than 2014 rate with assumed trend.
- Overall impact a gain for non-hazardous systems and a loss for hazardous systems because hazardous employees retiree earlier and have more liability as pre-Medicare.

Insurance Funding Results

KERS				
	June 30, 2014		June 30, 2013	
	Non-Hazardous	Hazardous	Non-Hazardous	Hazardous
Total Normal Cost Rate	2.71%	8.31%	2.89%	9.58%
Less Member Rate	0.24%	0.36%	0.20%	0.31%
Employer Normal Cost Rate	2.47%	7.95%	2.69%	9.27%
Administrative Expenses	0.05%	0.06%	0.26%	0.14%
Rate to Amortize UAL	5.22%	(0.89)%	4.98%	0.56%
Total Employer Contribution Rate	7.74%	7.12%	7.93%	9.97%
Unfunded Accrued Liability ($ millions)	$1,605.5	($22.4)	$1,631.2	$14.7
Funded Ratio	27.9%	105.6%	23.4%	96.2%
Amortization Period	29	29	30	30

Insurance Funding Results

CERS				
	June 30, 2014		June 30, 2013	
	Non-Hazardous	Hazardous	Non-Hazardous	Hazardous
Total Normal Cost Rate	3.36%	8.26%	3.55%	9.07%
Less Member Rate	0.27%	0.21%	0.23%	0.17%
Employer Normal Cost Rate	3.09%	8.05%	3.32%	8.90%
Administrative Expenses	0.02%	0.06%	0.20%	0.15%
Rate to Amortize UAL	1.77%	5.31%	1.83%	5.92%
Total Employer Contribution Rate	4.88%	13.42%	5.35%	14.97%
Unfunded Accrued Liability ($ millions)	$785.7	$496.1	$815.6	$544.6
Funded Ratio	70.0%	66.8%	66.6%	62.1%
Amortization Period	29	29	30	30

Insurance Funding Results

SPRS		
	June 30, 2013	June 30, 2013
Total Normal Cost Rate	10.15%	12.03%
Less Member Rate	0.15%	0.12%
Employer Normal Cost Rate	10.00%	11.91%
Administrative Expenses	0.13%	0.41%
Rate to Amortize UAL	9.04%	9.54%
Total Employer Contribution Rate	19.17%	21.86%
Unfunded Accrued Liability ($ millions)	$78.7	$86.0
Funded Ratio	66.4%	61.3%
Amortization Period	29	30

CERS Insurance Contribution Rates

- Continuation of ten-year phase-in from 2007 mandated by the Legislature last year.

Fiscal Year Ending June 30	Non-Hazardous Members (Full-funding Rate 4.88%)	Hazardous Members (Full-funding Rate 13.42%)
2016	4.64%	12.69%
2017	4.83%	13.26%
2018 and later	5.02%	13.83%

Combined Employer Contribution Rates

Fund	June 30, 2014			June 30, 2013		
	Pension	Insurance	Combined	Pension	Insurance	Combined
Results Before CERS Insurance Phase-In						
CERS Non-Hazardous	12.42%	4.88%	17.30%	12.75%	5.35%	18.10%
CERS Hazardous	20.26%	13.42%	33.68%	20.73%	14.97%	35.70%
Results After CERS Insurance Phase-In						
CERS Non-Hazardous	12.42%	4.64%	17.06%	12.75%	4.92%	17.67%
CERS Hazardous	20.26%	12.69%	32.95%	20.73%	13.58%	34.31%

Experience Study Results

Demographic Assumptions

- Funds reviewed (pension and healthcare)
  - KERS Non-Hazardous
  - KERS Hazardous
  - CERS Non-Hazardous
  - CERS Hazardous
  - SPRS

Demographic Assumptions

- Study compares what actually happened during the study period (7/01/2008 through 6/30/2013) with what was expected to happen.
- Assumption changes recommended if actual experience differs significantly from expected.
- Judgment required to extrapolate future experience from past experience.

Demographic Assumptions

- Recommended Demographic Assumption Changes
  - Adjust withdrawal, retirement and mortality decrements for all Systems to better match experience
  - Adjust disability decrements for KERS Non-Hazardous, KERS Hazardous, and CERS Non-Hazardous to better match experience
  - Adjust certain coverage assumptions for retiree healthcare benefits to better match experience. Participation for those hired before 7/1/2003 based on service at retirement.

Economic Assumptions

- Assumptions reviewed
  - Price inflation
  - Investment return
  - Wage inflation
- Recommendations

Item	Current	Proposed
Price Inflation	3.50%	3.25%
Real Rate of Return	4.25%	4.25%
Investment Return	7.75%	7.50%
Price Inflation	3.50%	3.25%
Real Wage Growth	1.00%	0.75%
Wage Inflation	4.50%	4.00%

Impact of Recommendations

Financial Impact on 6/30/2014 KERS Non-Hazardous Valuation

System	Before Change	After Change
KERS Non-Hazardous Pension:		
UAL	$9,126,153,508	$9,714,405,621
Funding Ratio	20.99%	19.97%
Employer Rate	33.57%	36.17%
KERS Non-Hazardous Insurance:		
UAL	$1,605,523,279	$1,838,281,690
Funding Ratio	27.90%	25.26%
Employer Rate	7.74%	8.63%
Total Employer Rate	41.31%	44.80%

Impact of Recommendations

Financial Impact on 6/30/2014 KERS Hazardous Valuation

System	Before Change	After Change
KERS Hazardous Pension:		
UAL	$288,952,802	$331,552,270
Funding Ratio	64.63%	61.42%
Employer Rate	17.09%	20.19%
KERS Hazardous Insurance:		
UAL	$(22,409,047)	$(45,657,315)
Funding Ratio	105.64%	112.22%
Employer Rate	7.12%	4.83%
Total Employer Rate	24.21%	25.02%

Impact of Recommendations

Financial Impact on 6/30/2014 CERS Non-Hazardous Valuation

System	Before Change	After Change
CERS Non-Hazardous Pension:		
UAL	$3,655,388,924	$4,098,530,958
Funding Ratio	62.60%	59.88%
Employer Rate	12.42%	13.47%
CERS Non-Hazardous Insurance:		
UAL	$785,715,135	$1,068,016,155
Funding Ratio	69.98%	63.16%
Employer Rate	4.88%	5.48%
Total Employer Rate	17.30%	18.95%

Impact of Recommendations

Financial Impact on 6/30/2014 CERS Hazardous Valuation

System	Before Change	After Change
CERS Hazardous Pension:		
UAL	$1,321,185,726	$1,438,716,894
Funding Ratio	59.83%	57.76%
Employer Rate	20.26%	19.30%
CERS Hazardous Insurance:		
UAL	$496,131,142	$474,450,342
Funding Ratio	66.79%	67.77%
Employer Rate	13.42%	11.01%
Total Employer Rate	33.68%	30.31%

Impact of Recommendations

Financial Impact on 6/30/2014 SPRS Valuation

System	Before Change	After Change
SPRS Pension:		
UAL	$438,376,667	$474,118,742
Funding Ratio	35.64%	33.86%
Employer Rate	58.44%	65.10%
SPRS Insurance:		
UAL	$78,676,367	$89,204,135
Funding Ratio	66.42%	63.56%
Employer Rate	19.17%	20.56%
Total Employer Rate	77.61%	85.66%