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Report on the Annual Basic Benefits Valuation of the School Employees Retirement System of Ohio

Prepared as of June 30, 2014



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November 14, 2014

Board of Trustees School Employees Retirement System Of Ohio 300 East Broad Street Suite 100 Columbus, OH 43215-3746

Dear Members of the Board:

Presented in this report are the results of the annual actuarial valuation of the basic benefits provided under the School Employees Retirement System of Ohio (SERS). 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, 2014.

The date of the valuation was June 30, 2014.

The valuation was based upon data, furnished by the Executive Director and the SERS staff, concerning active, inactive and retired members along with pertinent financial information. The complete cooperation of the SERS 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.

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 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.

Respectfully submitted,

Thom Cavarde

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

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John J. Garrett, ASA, FCA, MAAA Principal and Consulting Actuary



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REPORT ON THE ANNUAL VALUATION OF THE SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

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 basic benefits provided under the System, including pension, Medicare Part B reimbursement and post-retirement death benefits. 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.

	June 30, 2014	June 30, 2013
Active members included in valuation		
Number	121,251	121,642
Annual Compensation	\$2,759,281,606	\$2,746,827,535
Retirees		
Number	72,605	70,771
Annual allowances	\$958,537,700	\$898,267,601
Deferred Vesteds		
Number	7,049	7,246
Annual deferred allowances	\$29,152,306	\$29,094,575
Assets (net of Health Care Assets)		
Market related actuarial value	\$12,030,478,476	\$11,125,960,356
Market value	\$12,820,884,107	\$11,300,482,029
Unfunded Accrued Liability	\$5,851,348,695	\$6,121,200,722
Funded Ratio (MVA/AAL)		
Basic Benefits	68.07%	65.30%
Medicare Part B	32.71%	30.64%
Post-retirement Death Benefits	60.00%	55.88%
Employer Contribution Rate		
Normal	1.41%	1.30%
Accrued liability	<u>11.77</u>	<u>12.56</u>
Total	13.18%	13.86%
Accrued liability amortization period (years)	28	29

SUMMARY OF PRINCIPAL RESULTS



- 2. The statute sets a contribution cap of 24% of payroll; 14% from employers and 10% from employees. Employer contributions in excess of those required to support the basic benefits may be allocated to retiree health care funding.
- 3. The valuation balance sheet showing the results of the valuation is given in Schedule A.
- 4. Comments on the valuation results are given in Section IV, comments on the experience and the sources of 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.
- 5. Schedule B of this report presents the development of the actuarial value of assets. Schedule C details the actuarial assumptions and methods employed. Schedule D gives a summary of the benefit and contribution provisions of the plan.



SECTION II – MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's staff. 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

		Grou	o Averag	es
Number	Payroll	Salary	Age	Service
121,251	\$2,759,281,606	\$22,757	48.6	10.0

The total number of active members includes 57,548 vested members and 63,703 non-vested members. The vesting requirement is five years for members who retire prior to August 1, 2017 and ten years for those who retire on and after August 1, 2017.

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

SCHEDULE OF SERS ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/2009	125,465	\$2,787,390,954	\$22,216	4.2%
6/30/2010	126,015	2,842,660,159	22,558	1.5
6/30/2011	125,337	2,852,378,614	22,758	0.9
6/30/2012	121,811	2,788,153,585	22,889	0.6
6/30/2013	121,642	2,746,827,535	22,581	(1.3)
6/30/2014	121,251	2,759,281,606	22,757	0.8



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

			Group Ave	erages
Type of Benefit Payment	Number	Annual Benefits	Benefit	Age
Retirees and Beneficiaries	62,739	\$835,635,006	\$13,319	74.8
Disability	5,482	87,699,272	15,998	65.1
Survivors	4,384	35,203,422	8,030	71.7
Total in SERS	72,605	\$958,537,700	\$13,202	73.9

Retired Lives

This valuation also includes 100,121 inactive members eligible for a contribution refund only (including 50,797 members reported separately who had completed one or more years of service before terminating). Their contributions totaled \$211,777,589 as of June 30, 2014. There were also 7,049 terminated vested members with annual deferred pension benefits of \$29,152,306. Included in the "Retiree" numbers in the above table are 10,391 re-employed retirees with account balances of \$74,456,479 (including employer contributions and interest), 447 re-retirees receiving only an annuity from their contributions and their employers' matching contributions, and 497 re-retirees receiving such annuities in addition to their regular pension benefits. The sum of the annuity payments attributable to these re-retirees is \$3,645,480.



SECTION III – ASSETS

 As of June 30, 2014 the total market value of assets amounted to \$13,234,742,308. All figures include the combined Pension Trust Fund, Medicare B Fund, Death Benefit Fund and Health Care Fund but exclude the QEBA Fund.

	Asset Summary Based	on Market Value	
(1)	Assets at June 30, 2013	\$	11,679,663,055
(2)	Contributions and Misc. Revenue		867,148,920
(3)	Investment Gain (Loss)		1,917,413,416
(4)	Benefit Payments		(1,229,483,083)
(5)	Assets at June 30, 2014 (1) + (2) + (3) + (4)	\$	13,234,742,308
(6)	Annualized Rate of Return*		16.7 %

 The four-year smoothed market related actuarial value of assets used for the current valuation was \$12,030,478,476. Schedule B shows the development of the actuarial value of assets as of June 30, 2014. Again all figures include the combined Pension Trust Fund, Medicare B Fund, Death Benefit Fund and Health Care Fund but exclude the QEBA Fund.

	Asset Summary Based on Actuarial	Value	
(1)	Assets at June 30, 2013	\$	11,505,141,382
(2)	Contributions and Misc. Revenue		867,148,920
(3)	Investment Gain (Loss)		1,301,529,458
(4)	Benefit Payments		(1,229,483,083)
(5)	Assets at June 30, 2014 Before Application of Corridor $(1) + (2) + (3) + (4)$	\$	12,444,336,677
(6)	Annualized Rate of Return*		11.5 %

*Based on the approximation formula: I/[0.5 x (A + B - I)], where

- I = Investment Gain (Loss)
- A = Beginning of year asset value
- B = End of year asset value



SECTION IV - COMMENTS ON VALUATION

Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 2014.

- 1. The total valuation balance sheet on account of retirement benefits shows that the System has total prospective retirement benefit liabilities of \$20,534,905,680, of which \$10,141,959,924 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members, \$581,477,029 is for the prospective benefits payable on account of present inactive members, and \$9,811,468,727 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 \$12,030,478,476 as of June 30, 2014. The difference of \$8,504,427,204 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, \$2,386,907,773 is the present value of future contributions expected to be made by members, and the balance of \$6,117,519,431 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 1.18% of payroll for basic pension benefits, 0.02% of payroll for post-retirement death benefits, and 0.21% of payroll for Medicare Part B benefits are required to provide the benefits of the System for the average member of SERS. Prospective employer normal contributions on account of retirement benefits at the above rates have a present value of \$266,170,736.
- 3. For pension benefits, it is recommended that the unfunded accrued liability contribution rate payable by the employers on account of retirement benefits be set at 11.21% of payroll. For post-retirement death benefits, it is recommended that the unfunded accrued liability contribution rate payable by the employers on account of retirement benefits be set at 0.03% of payroll. Finally for Medicare Part B benefits, it is recommended that the unfunded accrued liability contribution rate payable by the employers on account of retirement benefits be set at 0.53% of payroll. Finally for Medicare Part B benefits, it is recommended that the unfunded accrued liability contribution rate payable by the employers on account of retirement benefits be set at 0.53% of payroll. These rates are sufficient to amortize the unfunded accrued liability of \$5,851,348,695 over 28 years based on the assumption that the aggregate payroll for SERS members will increase by 4.00% each year.
- 4. The present value of the total future contributions to be made by the employers for basic benefits is the sum of the future employer normal contributions and the unfunded accrued liability contributions and equals \$6,117,519,431.



SECTION V - DERIVATION OF EXPERIENCE GAINS AND LOSSES

Actual experience will never (except by coincidence) match 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).

Total Basic June 30, 2014 2013 2012 2011 2010 2009 \$ (1) UAAL from last valuation 6,121.2 6,357.7 5,811.9 4,312.5 4,745.8 2,689.4 (2) Normal cost from last valuation 308.9 311.9 334.3 392.0 386.3 373.4 700.7 695.1 696.7 682.4 703.7 586.9 (3) Contributions (4) Interest accrual: 471.2 490.0 449.3 349.1 382.4 221.5 $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: \$ 6,200.6 6,464.5 5,898.8 4,371.2 (5) 4,810.8 2,697.4 (1) + (2) - (3) + (4) (6) Change due to plan amendments 0.0 (27.8) (194.7) 0.0 0.0 0.0 0.0 0.0 (7) Change due to new actuarial 0.0 0.0 436.2 0.0 assumption or methods 6,200.6 5,704.1 4,807.4 (8) Expected UAAL after changes: \$ 6,436.7 4,810.8 2,697.4 (5) + (6) + (7)\$ 6,357.7 4,745.8 (9) Actual UAAL from this valuation 5,851.3 6,121.2 5,811.9 4,312.5 (10) Total Gain/(loss): (8) - (9) \$ 349.3 315.5 (653.6) (1,004.5) 498.3 (2,048.4)Investment Gain/(loss): \$ 403.3 241.0 (692.2) (1,082.9) 390.6 (2,265.0) (11) Non-Investment Gain/(loss) \$ 74.4 107.8 216.7 (12)(54.0) 38.6 67.4

Experience	Gain/((Loss)	

	Pension June 30,	2014	2013	2012	2011	2010	2009
(1)	UAAL from last valuation	\$ 5,838.1	6,072.1	5,531.0	4,056.8	4,486.0	2,455.9
(2)	Normal cost from last valuation	303.0	305.9	327.9	383.9	378.5	365.9
(3)	Contributions	677.8	673.0	673.7	659.0	679.9	564.5
(4)	Interest accrual: [(1) + (2) - (3)*.5] x .0775	449.7	468.2	428.0	318.6	362.0	203.2
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 5,913.0	6,173.2	5,613.2	4,100.3	4,546.6	2,460.5
(6)	Change due to plan amendments	0.0	(27.1)	(189.0)	0.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0	424.5	0.0	0.0
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$ 5,913.0	6,146.1	5,424.2	4,524.8	4,546.6	2,460.5
(9)	Actual UAAL from this valuation	\$ 5,574.6	5,838.1	6,072.1	5,531.0	4,056.8	4,486.0
(10)	Total Gain/(loss): (8) - (9)	\$ 338.4	308.0	(647.9)	(1,006.2)	489.8	(2,025.5)
(11)	Investment Gain/(loss):	\$ 398.0	237.9	(683.6)	(1,068.1)	386.4	(2,235.0)
(12)	Non-Investment Gain/(loss)	\$ (59.6)	70.1	35.7	61.9	103.4	209.5



SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES

	Medicare Part B		2014	2042	2042	2014	2010	2000
	June 30,		2014	2013	2012	2011	2010	2009
(1)	UAAL from last valuation	\$	268.3	270.0	266.5	244.5	248.0	226.6
(2)	Normal cost from last valuation		5.4	5.5	5.9	7.4	7.1	6.8
(3)	Contributions		21.5	20.7	21.5	22.2	22.6	21.7
(4)	Interest accrual:		20.4	20.5	20.3	18.7	19.5	17.8
	[(1) + (2) - (3)*.5] x .0775							
(5)	Expected UAAL before changes:	\$	272.6	275.3	271.2	248.3	252.0	229.5
	(1) + (2) - (3) + (4)							
(6)	Change due to plan amendments		0.0	(0.6)	(5.6)	0.0	0.0	0.0
(7)	Change due to new actuarial		0.0	0.0	0.0	10.5	0.0	0.0
	assumption or methods							
(8)	Expected UAAL after changes:	\$	272.6	274.7	265.6	258.8	252.0	229.5
	(5) + (6) + (7)							
(9)	Actual UAAL from this valuation	\$	262.7	268.3	270.0	266.5	244.5	248.0
(10)	Total Gain/(loss): (8) - (9)	\$	9.9	6.4	(4.4)	(7.7)	7.5	(18.5)
(11)	Investment Gain/(loss):	\$	4.5	2.6	(7.3)	(12.8)	3.5	(25.1)
(12)	Non-Investment Gain/(loss)	\$	5.4	3.8	2.9	5.1	4.0	6.6
()								
(12)	Post-Retirement Death Benefits June 30.		2014	2013	2012	2011	2010	2009
	Post-Retirement Death Benefits June 30,		2014	2013	2012	2011	2010	2009
	June 30,	¢						
(1)	June 30, UAAL from last valuation	\$	14.8	15.6	14.4	11.2	11.8	6.9
(1) (2)	June 30, UAAL from last valuation Normal cost from last valuation	\$	14.8 0.5	15.6 0.5	14.4 0.5	11.2 0.7	11.8 0.7	6.9 0.7
(1) (2) (3)	June 30, UAAL from last valuation Normal cost from last valuation Contributions	\$	14.8 0.5 1.4	15.6 0.5 1.4	14.4 0.5 1.5	11.2 0.7 1.2	11.8 0.7 1.2	6.9 0.7 0.7
(1) (2)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual:	\$	14.8 0.5	15.6 0.5	14.4 0.5	11.2 0.7	11.8 0.7	6.9 0.7
(1) (2) (3) (4)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: [(1) + (2) - (3)*.5] x .0775	·	14.8 0.5 1.4 1.1	15.6 0.5 1.4 1.2	14.4 0.5 1.5 1.1	11.2 0.7 1.2 0.9	11.8 0.7 1.2 1.0	6.9 0.7 0.7 0.6
(1) (2) (3)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual:	\$	14.8 0.5 1.4	15.6 0.5 1.4	14.4 0.5 1.5	11.2 0.7 1.2	11.8 0.7 1.2	6.9 0.7 0.7
(1) (2) (3) (4)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: [(1) + (2) - (3)*.5] x .0775 Expected UAAL before changes:	·	14.8 0.5 1.4 1.1	15.6 0.5 1.4 1.2	14.4 0.5 1.5 1.1	11.2 0.7 1.2 0.9	11.8 0.7 1.2 1.0	6.9 0.7 0.7 0.6
(1) (2) (3) (4) (5)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: (1) + (2) - (3) + (4)	·	14.8 0.5 1.4 1.1 15.0	15.6 0.5 1.4 1.2 15.9	14.4 0.5 1.5 1.1 14.5	11.2 0.7 1.2 0.9 11.6	11.8 0.7 1.2 1.0 12.3	6.9 0.7 0.7 0.6 7.5
(1) (2) (3) (4) (5) (6) (7)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: (1) + (2) - (3) + (4) Change due to plan amendments Change due to new actuarial	\$	14.8 0.5 1.4 1.1 15.0 0.0	15.6 0.5 1.4 1.2 15.9 (0.1)	14.4 0.5 1.5 1.1 14.5 (0.1)	11.2 0.7 1.2 0.9 11.6 0.0	11.8 0.7 1.2 1.0 12.3 0.0	6.9 0.7 0.7 0.6 7.5 0.0
(1) (2) (3) (4) (5) (6)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: (1) + (2) - (3) + (4) Change due to plan amendments Change due to new actuarial assumption or methods	·	14.8 0.5 1.4 1.1 15.0 0.0 0.0	15.6 0.5 1.4 1.2 15.9 (0.1) 0.0	14.4 0.5 1.5 1.1 14.5 (0.1) 0.0	11.2 0.7 1.2 0.9 11.6 0.0 1.2	11.8 0.7 1.2 1.0 12.3 0.0 0.0	6.9 0.7 0.6 7.5 0.0 0.0
(1) (2) (3) (4) (5) (6) (7) (8)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: (1) + (2) - (3) + (4) Change due to plan amendments Change due to new actuarial assumption or methods Expected UAAL after changes:	\$	14.8 0.5 1.4 1.1 15.0 0.0 0.0	15.6 0.5 1.4 1.2 15.9 (0.1) 0.0	14.4 0.5 1.5 1.1 14.5 (0.1) 0.0	11.2 0.7 1.2 0.9 11.6 0.0 1.2	11.8 0.7 1.2 1.0 12.3 0.0 0.0	6.9 0.7 0.6 7.5 0.0 0.0
(1) (2) (3) (4) (5) (6) (7)	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: (1) + (2) - (3) + (4) Change due to plan amendments Change due to new actuarial assumption or methods Expected UAAL after changes: (5) + (6) + (7)	\$	14.8 0.5 1.4 1.1 15.0 0.0 0.0 15.0	15.6 0.5 1.4 1.2 15.9 (0.1) 0.0 15.8	14.4 0.5 1.5 1.1 14.5 (0.1) 0.0 14.4	11.2 0.7 1.2 0.9 11.6 0.0 1.2 12.8	11.8 0.7 1.2 1.0 12.3 0.0 0.0 12.3	6.9 0.7 0.7 0.6 7.5 0.0 0.0 7.5
 (1) (2) (3) (4) (5) (6) (7) (8) (9) 	June 30, UAAL from last valuation Normal cost from last valuation Contributions Interest accrual: $[(1) + (2) - (3)^*.5] \times .0775$ Expected UAAL before changes: (1) + (2) - (3) + (4) Change due to plan amendments Change due to plan amendments Change due to new actuarial assumption or methods Expected UAAL after changes: (5) + (6) + (7) Actual UAAL from this valuation	\$	14.8 0.5 1.4 1.1 15.0 0.0 0.0 15.0 14.0	15.6 0.5 1.4 1.2 15.9 (0.1) 0.0 15.8 14.8	14.4 0.5 1.5 1.1 14.5 (0.1) 0.0 14.4 15.6	11.2 0.7 1.2 0.9 11.6 0.0 1.2 12.8 14.4	11.8 0.7 1.2 1.0 12.3 0.0 0.0 12.3 11.2	6.9 0.7 0.7 0.6 7.5 0.0 0.0 7.5 11.8

Experience Gain/(Loss)



ANALYSIS OF FINANCIAL EXPERIENCE

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

	\$ Gain (or Loss) For Year Ending 6/30/14							
Type of Activity	Pens	sion	Medicare	Part B	Post-Reti Death Be		Tot Basic B	
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$	(122.0)	\$	(0.5)	\$	(0.1)	\$	(122.6)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.		(55.3)		(0.6)		(0.1)		(56.0)
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.		0.1		0.0		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.		43.0		5.1		0.2		48.3
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.		103.4		0.0		0.0		103.4
New Members. Additional accrued liability attributable to members who entered the plan since the last valuation.		(26.7)		(1.4)		(0.1)		(28.2)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.		398.0		4.5		0.8		403.3
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.		2.5		0.5		0.1		3.1
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.		(4.6)		2.3		0.2		(2.1)
Gain (or Loss) During Year From Financial Experience	\$	338.4	\$	9.9	\$	1.0	\$	349.3
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes		0.0		0.0		0.0		0.0
Composite Gain (or Loss) During Year	\$	338.4	\$	9.9	\$	1.0	\$	349.3



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.

Required Contribution Rates

	Contribution for	Pension	Post-Retirement Death Benefits	Medicare Part B	Total Basic Benefits
A.	Normal Cost: (1) Service retirement benefits (2) Disability benefits (3) Survivor benefits (4) Refunds (5) Total	6.53% 0.76 0.16 <u>3.73</u> 11.18%	0.02%	0.21%	11.41%
В.	Member Contributions	10.00%	0.00%	0.00%	10.00%
C.	Employer Normal Cost: [A(5) - B]	1.18%	0.02%	0.21%	1.41%
D.	Unfunded Actuarial Accrued Liability Contributions	11.21%	0.03%	0.53%	11.77%
E.	Total Recommended Employer Contribution Rate:[C+D]	12.39%	0.05%	0.74%	13.18%



SECTION VII - ACCOUNTING INFORMATION

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

GROUP	Total
Retirees and beneficiaries currently receiving benefits	72,605
Terminated employees entitled to benefits but not yet receiving benefits	7,049
Active Members	121,251
Total	200,905

NUMBER OF ACTIVE AND RETIRED MEMBERS AS OF JUNE 30, 2014

Another such item is the Schedule of Funding Progress for pension, post-retirement death and Medicare Part B benefits separately as shown in the following table.



SCHEDULE OF FUNDING PROGRESS (\$ In Millions)

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)		
		Pensio	on Benefits					
6/30/2009 6/30/2010 6/30/2011 6/30/2012 6/30/2013 6/30/2014	\$ 9,704 10,766 10,378 10,266 10,988 11,882	\$ 14,190 14,823 15,910 16,338 16,826 17,457	\$ 4,486 4,057 5,532 6,072 5,838 5,575	68.4% 72.6 65.2 62.8 65.3 68.1	\$ 2,787 2,843 2,852 2,788 2,747 2,759	161.0% 142.7 194.0 217.8 212.5 202.1		
		Medic	are Part B					
6/30/2009 6/30/2010 6/30/2011 6/30/2012 6/30/2013 6/30/2014	\$ 113 122 116 113 119 128	\$ 361 367 382 383 387 390	\$ 248 244 266 270 268 262	31.3% 33.3 30.3 29.5 30.6 32.7	\$ 2,787 2,843 2,852 2,788 2,747 2,759	8.9% 8.6 9.3 9.7 9.8 9.5		
	Post-Retirement Death Benefits							
6/30/2009 6/30/2010 6/30/2011 6/30/2012 6/30/2013 6/30/2014	\$ 19 21 19 18 19 21	\$ 31 32 33 34 34 35	\$ 12 11 14 16 15 14	61.3% 65.6 57.6 52.9 55.9 60.0	\$ 2,787 2,843 2,852 2,788 2,747 2,759	0.4% 0.4 0.5 0.6 0.5 0.5		



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.

Valuation date	6/30/2014
Actuarial cost method	Entry Age
Amortization	Level Percent Closed
Remaining amortization period	28 years
Asset valuation method	4 Year Smoothed Market
Actuarial assumptions	
Investment rate of return*	7.75%
* Includes price inflation at	3.25%
Projected salary increases^	4.00% - 22.00%
^ Includes wage inflation at	4.00%
Cost-of-living adjustment	3.00%



Schedule of Employer Contributions

Year Ended	Annual Required Contribution	Percentage Contributed					
Pension Benefits							
June 30, 2009	268,645,839	100.0%					
June 30, 2010	378,201,685	100.0					
June 30, 2011	355,959,304	100.0					
June 30, 2012	376,816,938	100.0					
June 30, 2013	380,083,642	100.0					
June 30, 2014	382,098,970	100.0					
	Medicare Part B						
June 30, 2009	21,688,294	100.0%					
June 30, 2010	22,619,935	100.0					
June 30, 2011	22,172,922	100.0					
June 30, 2012	21,450,368	100.0					
June 30, 2013	20,672,040	100.0					
June 30, 2014	21,517,805	100.0					
Post	-Retirement Death Bene	fits					
June 30, 2009	734,970	100.0					
June 30, 2010	1,225,772	100.0					
June 30, 2011	1,166,996	100.0					
June 30, 2012	1,454,763	100.0					
June 30, 2013	1,398,442	100.0					
June 30, 2014	1,412,852	100.0					



SCHEDULE A

Valuation Balance Sheet and Solvency Test

The following valuation balance sheet shows 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 SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

	June 30, 2014		June 30, 2013
ASSETS			
Current actuarial value of assets	\$ 12,030,478,476	\$	11,125,960,356
Prospective contributions			
Member contributions	\$ 2,386,907,773	\$	2,408,904,452
Employer normal contributions	266,170,736		242,384,715
Unfunded accrued liability contributions	 5,851,348,695		6,121,200,722
Total prospective contributions	\$ 8,504,427,204	\$	8,772,489,889
Total assets	\$ 20,534,905,680	\$	19,898,450,245
LIABILITIES			
Present value of benefits payable on account of present retired members and beneficiaries	\$ 10,141,959,924	\$	9,498,497,493
Present value of benefits payable on account of active members	9,811,468,727		9,821,290,890
Present value of benefits payable on account of inactive and deferred vested members	 581,477,029	_	578,661,862
Total liabilities	\$ 20,534,905,680	\$	19,898,450,245



The following tables provide the solvency test for SERS members.

Solvency Test (\$ in Millions)

	Aggreg	ate Accrued Lia	bilities For			of Accrued L I by Reporte		
Valuation Date	(1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)	
Pension Benefits								
6/30/2009	\$ 2,470	\$ 7,496	\$ 4,224	\$ 9,704	100.0%	96.5%	0.0%	
6/30/2010	2,569	7,850	4,404	10,766	100.0	100.0	7.9	
6/30/2011	2,749	8,525	4,636	10,378	100.0	89.5	0.0	
6/30/2012	2,826	9,190	4,322	10,266	100.0	81.0	0.0	
6/30/2013	2,860	9,796	4,196	10,988	100.0	83.0	0.0	
6/30/2014	2,892	10,437	4,128	11,882	100.0	86.1	0.0	
			Medicare Part B	3				
6/30/2009	\$ 0	\$ 239	\$ 121	\$ 113	100.0%	47.1%	0.0%	
6/30/2010	0	239	128	122	100.0	51.1	0.0	
6/30/2011	0	245	138	116	100.0	47.3	0.0	
6/30/2012	0	251	132	113	100.0	45.1	0.0	
6/30/2013	0	255	132	119	100.0	46.5	0.0	
6/30/2014	0	259	131	128	100.0	49.3	0.0	
		Pos	st-Retirement Death	Benefits				
6/30/2009	\$ 0	\$ 24	\$ 7	\$ 19	100.0%	79.2%	0.0%	
6/30/2010	0	25	7	21	100.0	84.0	0.0	
6/30/2011	0	26	7	19	100.0	74.0	0.0	
6/30/2012	0	26	8	18	100.0	69.7	0.0	
6/30/2013	0	27	7	19	100.0	72.6	0.0	
6/30/2014	0	27	8	21	100.0	75.9	0.0	

SCHEDULE B Development of Actuarial Value of Assets



	Valuation date June 30:		2013		2014	2015	2016	2017
A.	Actuarial Value Beginning of Year	\$	10,752,023,254	\$	11,505,141,382			
В.	Market Value End of Year		11,679,663,055		13,234,742,308			
C.	Market Value Beginning of Year		10,686,768,799		11,679,663,055			
D.	Cash Flow							
	D1. Contributions	\$	740,601,623	\$	746,817,383			
	D2. Other Revenue		135,705,046		127,867,227			
	D3. Benefit Payments		(1,169,136,796)		(1,229,483,083)			
	D4. Net Transfers		(22,301,557)		(7,535,690)			
	D5. Net	\$	(315,131,684)	\$	(362,334,163)			
Ε.	Investment Income							
	E1. Market Total: BCD5.	\$	1,308,025,940	\$	1,917,413,416			
	E2. Assumed Rate (Net of Expenses)		7.75%		7.75%			
	E3. Amount for Immediate Recognition		816,013,229		891,133,438			
	E4. Amount for Phased-In Recognition		492,012,711		1,026,279,978			
F.	Phased-In Recognition of Investment Income							
	F1. Current Year: 0.25 * E4.	\$	123,003,178	\$	256,569,995	\$ 0	\$ 0	\$ 0
	F2. First Prior Year		(225,310,707)		123,003,178	256,569,995	0	0
	F3. Second Prior Year		256,133,554		(225,310,707)	123,003,178	256,569,995	0
	F4. Third Prior Year		98,410,558		256,133,554	(225,310,707)	123,003,178	256,569,995
	F5. Total Recognized Investment Gain/(Loss)	\$	252,236,583	\$	410,396,020	\$ 154,262,466	\$ 379,573,173	\$ 256,569,995
G.	Preliminary Actuarial Value End of Year:							
	A.+D5.+E3.+F5.	\$	11,505,141,382	\$	12,444,336,677			
Н.	Corridor							
	H1. 80% of Market Value H2. 120% of Market Value	\$ \$	9,343,730,444 14,015,595,666	\$ \$	10,587,793,846 15,881,690,770			
I.	Actuarial Value End of Year:							
	G. Not Less than H1. or Not Greater than H2	\$	11,505,141,382	\$	12,444,336,677			
J.	Difference Between Market & Actuarial Values	\$	174,521,673	\$	790,405,631	\$ 636,143,168	\$ 256,569,995	\$ 0
К.	Health Care Valuation Assets	\$	379,181,026	\$	413,858,201			
L.	Basic Benefits Valuation Assets	\$	11,125,960,356	\$	12,030,478,476			

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 4 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 actuarial assumptions used in the valuation were adopted by the Board in April, 2011.

INTEREST RATE: 7.75% per annum, compounded annually (net after all System expenses).

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed rates of separation from active service are as follows:

Service	Annual Rates of Withdrawal
0	45.00%
1	31.00
2	23.00
3	17.00
4	13.00
5	9.00
10	4.00
15	2.00
20	2.00
25	1.50

		Annual R	ates of	
	Dea	ath	Disal	oility
Age	Male	Female	Male	Female
20	.013%	.007%	.020%	.020%
25	.017	.007	.038	.020
30	.020	.009	.068	.026
35	.021	.012	.122	.054
40	.027	.018	.210	.100
45	.040	.024	.310	.168
50	.065	.036	.410	.260
55	.111	.057	.510	.360
60	.199	.111	.550	.400
65	.363	.216	.550	.400
70	.593	.343	.550	.400
74	.851	.510	.550	.400



Annual Rates of Normal Retirements					
Age	Male	Female			
50	28.0%	25.0%			
55	20.0	21.0			
60	18.0	17.0			
62	20.0	20.0			
65	25.0	25.0			
70	14.0	14.0			
75	100.0	100.0			

For members who are not eligible to retire prior to August 1, 2017, the assumed rates of retirement in the first year of eligibility for a normal retirement and upon completing 30 years of service are 28%. The assumed rates of early retirement for members who retire prior to August 1, 2017 are 14% for males and 13% for females aged 55 to 59 and 8.5% for males and 9.5% for females aged 60 to 64.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

		Annual Rates of	
Service	Merit & Seniority	Base (Economy)	Increase Next Year
0	18.00%	4.00%	22.00%
1	8.00	4.00	12.00
2	5.50	4.00	9.50
3	4.00	4.00	8.00
4	3.00	4.00	7.00
5	2.00	4.00	6.00
6	1.25	4.00	5.25
7	1.00	4.00	5.00
8	0.50	4.00	4.50
9	0.25	4.00	4.25
10-14	0.00	4.00	4.00
15 & over	0.00	4.00	4.00

PAYROLL GROWTH: 4.00% per annum, compounded annually.

PRICE INFLATION: 3.25% per annum, compounded annually.

DEATH AFTER RETIREMENT: The mortality table, for post-retirement mortality, used in evaluating allowances to be paid is the 1994 Group Annuity Mortality Table, set back one year for both men and women. Special tables are used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. There is sufficient 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.

MARRIAGE ASSUMPTION: 80% married with the husband three years older than his wife.

VALUATION METHOD: Entry age normal cost method. Entry age is established on an individual basis.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. 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 25% of the difference between market value and expected market value. The actuarial value of assets cannot be less than 80% or more than 120% of market value.



SCHEDULE D

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO Summary of Benefit and Contribution Provisions

Contributions for Basic Benefits		Members contribute 10% of pay and employers contribute 14% of pay. Employer contributions not required to finance basic benefits are allocated to the health care program.				
Final A	Average Salary	Average annual salary over the member's th of service.	ree highest years			
Norma	I Retirement					
	Condition for Retirement					
	Retire before August 1, 2017 or have 25 years of service or more on or before August 1, 2017	Attainment of age 65 with at least five service, or completion of 30 years of regardless of age.				
	<i>Members attaining 25 years of service after August 1, 2017</i>	Attainment of age 67 with at least ten y service, or attainment of age 57 with at creditable service. Buy-up option available.				
	Amount of Allowance	The annual retirement allowance payable sh than 100% of final average salary, and is the				
		 Money Purchase - the greater of: The sum of: An annuity based on the value accumulated contributions at reb. A pension equal to the annuity For members who have 10 service credit prior to 10/1/benefit of \$180. Defined Benefit - the greater of: The sum of: 2.2% of final average salary member's years of service up to 2.5% of final average salary member's years of service in e 	etirement or more years of 1956, an annual multiplied by the o 30, multiplied by the			

- or: c. \$86 multiplied by the years of service.



Early Retirement

Condition for Early Retirement

Retire before August 1, 2017 Not eligible for unreduced service retirement but has attained age 55 with at least 25 years of service, or age 60 with five years of service. 1, 2017

Members attaining 25 years of service after August 1, 2017 Attainment of age 62 with at least ten years of creditable service, or attainment of age 60 with at least 25 years of creditable service.

Amount of Allowance

Retire before August 1, 2017 or have 25 years of service or more on or before August 1, 2017 Normal retirement allowance accrued to the date of early retirement. The Defined Benefit amount determined above is adjusted by the following percentages based on attained age or years of service:

Attained	Years of Ohio	Doroontogo
Age	Service Credit	Percentage
58	25	75%
59	26	80
60	27	85
61		88
	28	90
62		91
63		94
	29	95
64		97

Members attaining 25 years of service after August 1, 2017 Actuarial equivalent of the normal retirement allowance accrued to the date of early retirement. The Defined Benefit amount determined above is actuarially adjusted for the years before age 65 (age 67 if after August 1, 2017) or 30 years of service, whichever is shorter, but in no event is the adjusted benefit less than the following percentages of the Defined Benefit amount based on years of service:

Years of Ohio Service Credit	Percentage
25	75%
26	80
27	85
28	90
29	95

Disability Retirement

Condition for Retirement		An allowance is paid upon becoming permanently disabled after completion of at least 5 years of total service credit.				
Amount of Allowance	1.	For those who were active members prior to July 29, 1992 and did not elect the benefit structure outlined below, an allowance based on service to date of				



disablement, plus, if the age at disablement is less than 60, continuous service to age 60. The allowance is computed in the same manner as the defined benefit service retirement allowance, subject to a minimum of 30% of FAS and a maximum of 75% of FAS. It is payable for life, unless terminated.

- 2. For those who became active members after July 28, 1992, and for those who were active members prior to July 29, 1992 who so elected, an allowance equal to the greater of (i) 45% of FAS, or (ii) the lesser of 60% of FAS, or the allowance computed in the same manner as the defined benefit service retirement allowance. The allowance will continue until:
 - a. The date the member is granted a service retirement benefit, or
 - b. The date the allowance is terminated, or
 - c. The later of the date the member attains age 65 or the date the disability allowance has been paid for the minimum duration in accordance with the following schedule:

Age at Disability	Minimum Duration In Months
60 and earlier	60
61	60
62	48
63	48
64	36
65	36
66	24
67	24
68	24
69 and older	12

Death Benefits Prior to Retirement

Death While Eligible to Retire

If a member dies in service after becoming eligible to retire with a service allowance and leaves a surviving spouse or other sole dependent beneficiary, the survivor may elect to receive the same amount that would have been paid had the member retired the last day of the month of death and elected the 100% joint and survivor form of payment.

Survivor (Death-in-Service) Allowances

- Condition for Benefit Upon the death of a member with at least 1½ years of Ohio service credit and with at least ¼ year of Ohio contributing service credit within 2½ years prior to the date of death, the survivor allowances are payable as follows:
 - Qualified Spouse: A monthly allowance commencing at age 62, except that the benefit is payable immediately if: (1) the qualified deceased member had 10 or more years of Ohio service credit; or (2) is caring for a surviving child, or (3) is incompetent.
 - 2. Qualified Child: For allowances that commenced before January 7 2013, an allowance is payable to the qualified



child of a deceased member who has never been married and is under age 18, under age 22 and in school, or adjudged incompetent prior to the member's death and the child attaining age 18 or age 22 if attending school. For allowances that commence on or after January 7, 2013 an allowance is payable to the qualified child of a deceased member who has never been married and is under age 19, or adjudged incompetent prior to the member's death and prior to the child attaining age 19.

3. Qualified Parent's Allowance: A monthly allowance is payable to a dependent parent age 65 or more.

Amount of Allowances Except when survived by a qualified child(ren), upon the death of a member prior to retirement, the accumulated contributions of the member without interest is payable. Alternatively, the beneficiary may elect the following amounts, payable monthly while eligible:

Number of Qualified <u>Survivors</u>	Annual Benefit as Percent of <u>Member's FAS</u>	Minimum Monthly <u>Allowance</u>
1	25%	\$96
2	40	186
3	50	236
4	55	236
5 or more	60	236

If the deceased member had attained at least 20 years of service, the total benefits payable to all qualified survivors are not less than:

Years of <u>Service</u>	Annual Benefit as Percent <u>of Member's FAS</u>
20	29%
21	33
22	37
23	41
24	45
25	48
26	51
27	54
28	57
29 or more	60

Termination Benefits

Refund of Members' Accumulated Contributions	In the event a member leaves service before any monthly benefits are payable on his behalf, his accumulated contributions, without interest, may be refunded.
Deferred Benefits	Members who retire prior to August 1, 2017 must have at least 5 years of service credit and those members who retire on and after August 1, 2017 must have at least 10 years of service credit and are eligible to draw the benefit the first of the month following their 62 nd birthday.



Normal Form of Benefit	Single Life Annuity
Optional Forms of Benefit	A member upon retirement may elect to receive his allowance in one of the following forms that are computed to be actuarially equivalent to the applicable retirement allowance:
	Upon the death of a retiree, 50%, 100%, or some other percentage of his reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
	A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner, his beneficiary or his estate for a specified number of years certain.
	A member can select a partial lump-sum option at retirement. Under this option, the partial lump- sum shall not be less than 6 times and not more than 36 times the unreduced monthly benefit, and the monthly benefit will be actuarially reduced. In addition, the monthly benefit payable cannot be less than 50% of the unreduced amount.
Post-Retirement Death Benefit	Regardless of the form of benefit selected, a lump sum benefit of \$1,000 is paid at the death of the retiree.
Post-Retirement Increases	On each anniversary of the initial date of retirement, the allowances of all retirees and survivors are increased by 3% of the base benefit.
Medicare Part B	Each recipient of a service retirement benefit, a disability benefit or a survivor benefit who was credited with at least 10 years of service and is covered under Medicare Part B and has chosen the health care option, is reimbursed \$45.50 per month for premiums for that coverage. The reimbursement will continue to the spouse upon the death of the retiree in cases where the retiree elected a Joint and Survivor payment form.
Re-Employed Retirants	
Eligibility Effective	July 1, 1991, service retirees of SERS, or service or disability retirees of one of the other four Ohio retirement systems who are employed in a SERS covered position are required to contribute to a money purchase annuity, a type of defined contribution plan.
Amount of Allowance	Upon termination of employment, a re-employed retirant who has attained age 65 is eligible to receive an annuity based on the amount of his/her accumulated contributions, and an equal amount of employer contributions, plus interest to the effective date of retirement. Effective July 1, 2006 the amount of employer contributions will be determined by the Board. Interest is granted on the reemployed retirant's prior fiscal year account balance, calculated using a rate determined by the SERS Board, compounded annually. The benefit is payable as a lump sum or as an annuity if the amount of such annuity is at



least \$25. Upon termination of employment, a re-employed retirant who has not attained age 65 may request a lump sum refund of his/her own contributions; there is no payment of employer contributions or interest.

Benefits Payable Upon Death If a re-employed retirant dies while employed, a lump sum payment of the monthly annuity, discounted to the present value using the current actuarial assumption rate of interest, will be paid to his beneficiary.

If a re-employed retirant dies while receiving a monthly annuity, a lump sum payment will be made to a beneficiary in an amount equal to the excess, if any, of the lump sum payment the re-employed retirant would have received at the effective date of retirement over the sum of the annuity payments received by the re-employed retirant to the date of death.

- Member Contributions Each re-employed retirant is required to contribute 10% of his pay by payroll deductions.
- Employer Contributions Employer contributions are expressed as percents of member covered payroll. Employers are required to contribute 14% of payroll.
- Other Benefits Re-employed retirants of SERS are not eligible to receive any of the other benefits provided to SERS members.
- Member Contributions 10% of salary.

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
				Num	<u>ber</u>		
Beginning of Year		64,818	65,757	66,127	67,221	69,038	70,771
Added		3,103	2,694	3,472	4,137	4,197	4,144
Removed		2,164	2,324	2,378	2,320	2,464	2,310
End of Year		65,757	66,127	67,221	69,038	70,771	72,605
				Annual Retireme	ent Allowances		
Beginning of Year	\$	652,373,571	\$ 693,838,994	\$ 729,859,717	\$ 777,910,918	\$ 838,076,567	\$ 898,267,601
Added		41,970,065	37,351,889	49,577,810	61,519,329	62,841,820	61,331,002
Removed		504,642	1,331,166	1,526,603	1,353,680	2,650,786	1,060,903
End of Year	\$	693,838,994	\$ 729,859,717	\$ 777,910,918	\$ 838,076,567	\$ 898,267,601	\$ 958,537,700
% Increase in Allowances		6.36%	5.19%	6.58%	7.73%	7.18%	6.71%
Average Annual Allowance	\$	10,552	\$ 11,037	\$ 11,572	\$ 12,139	\$ 12,693	\$ 13,202



Annuity and Pension Reserve Fund Retired Information June 30, 2014 Retired Members By Type of Benefit

Amount of Monthly Benefit			Total	Service	Disability	Survivor
\$ 1	-	\$ 250	11,210	10,179	88	943
251	-	500	11,691	9,896	544	1,251
501	-	750	10,601	8,925	813	863
751	-	1,000	8,680	7,239	888	553
1,001	-	1,500	12,040	10,278	1,333	429
1,501	-	2,000	7,056	6,041	846	169
Over		2,000	10,880	9,734	970	176
			72,158	62,292	5,482	4,384
erage M erage Ag		nly Benefit		\$ 1,116 74.3	\$ 1,333 65.1	\$669 71.7

The 62,292 service retirees shown in the table above are comprised of 57,059 service retirees and 5,233 beneficiaries of deceased retirees. Excluded from the 57,059 service retirees are 447 re-retirees that are receiving a pension-only benefit resulting from the annuitization of the contributions accumulated during active membership. Multiple benefit recipients accounts for the higher total headcount than shown elsewhere in the report.



Annuity and Pension Reserve Fund Retired Information June 30, 2014 Tabulated by Attained Ages

	Retirement		Disabilit	Disability Retirement		Total	
Attained Age	No.		Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	0	\$	-	82	\$ 1,173,537	82	\$ 1,173,537
45-49	23	\$	791,781	194	\$ 3,186,961	217	\$ 3,978,742
50-54	514	\$	17,633,796	517	\$ 9,743,361	1,031	\$ 27,377,157
55-59	1,832	\$	56,718,480	1020	\$ 19,814,522	2,852	\$ 76,533,002
60-64	6,570	\$	113,610,702	1222	\$21,975,992	7,792	\$ 135,586,694
65-69	11,366	\$	171,711,040	844	\$ 13,979,520	12,210	\$ 185,690,560
70-74	11,303	\$	155,998,599	619	\$ 8,745,280	11,922	\$ 164,743,879
75-79	10,075	\$	127,762,588	461	\$ 4,940,364	10,536	\$ 132,702,952
80-84	7,508	\$	82,375,254	309	\$ 2,747,792	7,817	\$ 85,123,046
85-89	5,125	\$	45,844,336	148	\$ 1,066,223	5,273	\$ 46,910,559
90 & Over	3,190	\$	21,933,029	66	\$ 325,719	3,256	\$ 22,258,748
Totals	57,506	\$	794,379,605	5,482	\$ 87,699,271	62,988	\$ 882,078,876

The 57,506 service retirees shown in the table above are comprised of 57,059 unique service retirees, and 447 unique re-retirees. The re-retirees included in the tabulation above are those that are receiving a pension-only benefit resulting from the annuitization of the contributions accumulated during active membership.



Annuity and Pension Reserve Fund Survivors of Annuitants Information June 30, 2014 Tabulated by Attained Ages

	Life Annuities		Perio	Periods Certain			Total		
Attained Age	Annual No. Benefits		No.	Annual No. Benefits		Annual No. Benefits			
Under 45	38	\$	160,805	8	\$	64,737	46	\$	225,541
45-49	21	\$	116,132	6	\$	65,001	27	\$	181,134
50-54	48	\$	266,762	3	\$	28,149	51	\$	294,912
55-59	103	\$	1,226,274	2	\$	4,505	105	\$	1,230,779
60-64	165	\$	1,818,558	3	\$	84,349	168	\$	1,902,907
65-69	333	\$	3,441,907	7	\$	48,860	340	\$	3,490,767
70-74	586	\$	5,275,275	11	\$	99,348	597	\$	5,374,624
75-79	868	\$	7,144,351	5	\$	45,182	873	\$	7,189,532
80-84	1,134	\$	9,101,775	2	\$	11,802	1,136	\$	9,113,577
85-89	1,074	\$	7,780,888	0	\$	-	1,074	\$	7,780,888
90 & Over	816	\$	4,470,741	0	\$	-	816	\$	4,470,741
Totals	5,186	\$	40,803,468	47	\$	451,934	5,233	\$	41,255,402



All Benefit Recipients Male and Female Demographic Breakdown June 30, 2014

Attained	Numl	Total		
Age	Males	Females	Number	
Under 20	30	21	51	
20-24	7	13	20	
25-29	5	4	9	
30-34	4	12	16	
35-39	11	19	30	
40-44	44	70	114	
45-49	140	191	331	
50-54	570	674	1,244	
55-59	1,364	1,863	3,227	
60-64	2,386	6,023	8,409	
65-69	3,498	9,751	13,249	
70-74	3,429	9,732	13,161	
75-79	3,106	8,992	12,098	
80-84	2,333	7,199	9,532	
85-89	1,478	5,303	6,781	
90-94	631	2,783	3,414	
95-99	127	682	809	
100	3	43	46	
101	6	23	29	
102	1	15	16	
103	1	8	9	
104	0	6	6	
105 & Over	1	3	4	
Total	19,175	53,430	72,605	



Survivor Benefit Fund Survivors of Deceased Active Member Information June 30, 2014 Tabulated by Attained Ages

Attained Age	No.	Annual Benefits
Under 45	112	\$ 1,273,789
45-49	87	\$ 1,074,407
50-54	162	\$ 1,872,081
55-59	270	\$ 2,978,757
60-64	449	\$ 4,437,856
65-69	699	\$ 6,172,801
70-74	642	\$ 4,704,813
75-79	689	\$ 5,389,556
80-84	579	\$ 3,738,989
85-89	434	\$ 2,380,488
90 & Over	261	\$ 1,179,887
Totals	4,384	\$ 35,203,422



Total Active Members as of June 30, 2014 Tabulated by Attained Ages and Years of Service

Years of Service to Valuation Date												
Attained Age	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Totals				
Under 20	755							755				
Avg Pay	\$5,793							\$4,373,490				
20-24	5,446	88						5,534				
Avg Pay	\$8,079	\$19,789						\$45,737,443				
25-29	5,454	780	51					6,285				
Avg Pay	\$12,997	\$26,250	\$32,026					\$92,992,573				
30-34	4,890	1,525	517	64				6,996				
Avg Pay	\$14,388	\$28,948	\$36,095	\$39,034				\$135,662,824				
35-39	5,327	2,063	1,040	410	34			8,874				
Avg Pay	\$13,374	\$25,757	\$36,068	\$39,088	\$44,249			\$179,420,365				
40-44	6,405	3,305	2,124	1,026	288	43		13,191				
Avg Pay	\$12,922	\$23,018	\$31,049	\$39,284	\$44,653	\$43,996		\$279,847,079				
44-49	5,819	4,257	3,553	2,157	732	411	65	16,994				
Avg Pay	\$13,179	\$21,774	\$27,483	\$33,429	\$43,688	\$45,310	\$49,108	\$392,927,968				
50-54	4,781	4,155	4,880	4,189	1,775	1,113	398	21,291				
Avg Pay	\$14,122	\$22,135	\$26,732	\$29,665	\$35,572	\$44,368	\$48,749	\$546,130,662				
55-59	3,651	3,069	3,919	4,513	3,009	1,722	747	20,630				
Avg Pay	\$14,364	\$23,053	\$27,206	\$28,906	\$32,088	\$37,026	\$45,868	\$554,839,114				
60-64	2,123	1,795	2,068	2,300	2,067	1,940	784	13,077				
Avg Pay	\$13,301	\$22,353	\$28,196	\$29,671	\$31,304	\$34,220	\$38,709	\$356,356,688				
65-69	1,040	795	752	616	609	749	592	5,153				
Avg Pay	\$9,457	\$19,928	\$25,426	\$29,076	\$31,240	\$31,949	\$31,680	\$124,418,905				
70 & over	538	485	385	209	179	221	454	2,471				
Avg Pay	\$8,175	\$12,985	\$18,552	\$23,095	\$27,323	\$26,909	\$28,792	\$46,574,494				
Totals	46,229	22,317	19,289	15,484	8,693	6,199	3,040	121,251				
Avg Pay	\$12,606	\$22,998	\$28,153	\$30,783	\$33,896	\$37,090	\$39,155	\$22,757				

Averages:

Age:	48.6
Service:	10.0
Annual Pay:	\$22,757



Male Active Members as of June 30, 2014 Tabulated by Attained Ages and Years of Service

Years of Service to Valuation Date												
Attained Age	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Totals				
Under 20	454							454				
Avg Pay	\$6,212							\$2,820,397				
20-24	2,565	51						2,616				
Avg Pay	\$8,245	\$22,800						\$22,310,287				
25-29	2,494	397	38					2,929				
Avg Pay	\$13,143	\$29,814	\$35,003					\$45,943,827				
30-34	1,974	663	268	32				2,937				
Avg Pay	\$14,990	\$33,721	\$42,754	\$48,023				\$64,942,466				
35-39	1,828	637	354	189	23			3,031				
Avg Pay	\$14,620	\$32,419	\$46,588	\$47,447	\$44,885			\$73,868,273				
40-44	2,004	757	484	343	128	17		3,733				
Avg Pay	\$13,677	\$31,312	\$44,954	\$50,817	\$50,870	\$49,325		\$97,650,257				
44-49	1,939	840	593	460	292	197	29	4,350				
Avg Pay	\$13,458	\$30,157	\$41,562	\$48,674	\$55,476	\$49,025	\$55,502	\$125,928,383				
50-54	1,706	996	748	585	334	432	208	5,009				
Avg Pay	\$15,428	\$28,905	\$40,198	\$45,494	\$50,094	\$53,865	\$51,516	\$162,508,420				
55-59	1,562	967	837	616	416	404	325	5,127				
Avg Pay	\$15,867	\$28,697	\$38,679	\$43,043	\$46,673	\$49,774	\$51,889	\$167,811,427				
60-64	1,074	771	637	431	336	316	203	3,768				
Avg Pay	\$14,588	\$25,603	\$36,197	\$41,070	\$45,307	\$48,021	\$50,687	\$116,854,218				
65-69	558	420	318	174	102	105	83	1,760				
Avg Pay	\$11,152	\$23,285	\$30,172	\$36,840	\$40,095	\$43,370	\$44,169	\$44,316,766				
70 & over	279	254	222	88	46	38	45	972				
Avg Pay	\$9,723	\$15,920	\$21,895	\$28,453	\$33,838	\$33,974	\$38,595	\$18,705,283				
Totals	18,437	6,753	4,499	2,918	1,677	1,509	893	36,686				
Avg Pay	\$13,141	\$28,897	\$39,040	\$44,575	\$48,157	\$49,632	\$50,259	\$25,723				

Averages: Age: 46.6 Service: 8.0 Annual Pay: \$25,623



Female Active Members as of June 30, 2014 Tabulated by Attained Ages and Years of Service

	Years of Service to Valuation Date												
Attained Age	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Totals					
Under 20	301							301					
Avg Pay	\$5,160							\$1,553,093					
20-24	2,881	37						2,918					
Avg Pay	\$7,931	\$15,638						\$23,427,156					
25-29	2,960	383	13					3,356					
Avg Pay	\$12,874	\$22,556	\$23,323					\$47,048,746					
30-34	2,916	862	249	32				4,059					
Avg Pay	\$13,980	\$25,277	\$28,928	\$30,044				\$70,720,358					
35-39	3,499	1,426	686	221	11			5,843					
Avg Pay	\$12,723	\$22,780	\$30,639	\$31,939	\$42,920			\$105,552,093					
40-44	4,401	2,548	1,640	683	160	26		9,458					
Avg Pay	\$12,578	\$20,554	\$26,945	\$33,493	\$39,680	\$40,511		\$182,196,822					
44-49	3,880	3,417	2,960	1,697	440	214	36	12,644					
Avg Pay	\$13,040	\$19,714	\$24,662	\$29,297	\$35,865	\$41,891	\$43,958	\$266,999,584					
50-54	3,075	3,159	4,132	3,604	1,441	681	190	16,282					
Avg Pay	\$13,397	\$20,001	\$24,295	\$27,095	\$32,206	\$38,343	\$45,721	\$383,622,242					
55-59	2,089	2,102	3,082	3,897	2,593	1,318	422	15,503					
Avg Pay	\$13,240	\$20,456	\$24,090	\$26,672	\$29,748	\$33,119	\$41,231	\$387,027,686					
60-64	1,049	1,024	1,431	1,869	1,731	1,624	581	9,309					
Avg Pay	\$11,983	\$19,906	\$24,635	\$27,042	\$28,586	\$31,535	\$34,523	\$239,502,471					
65-69	482	375	434	442	507	644	509	3,393					
Avg Pay	\$7,495	\$16,168	\$21,949	\$26,019	\$29,459	\$30,087	\$29,644	\$80,102,139					
70 & over	259	231	163	121	133	183	409	1,499					
Avg Pay	\$6,508	\$9,757	\$13,998	\$19,199	\$25,069	\$25,442	\$27,714	\$27,869,212					
Totals	27,792	15,564	14,790	12,566	7,016	4,690	2,147	84,565					
Avg Pay	\$12,251	\$20,439	\$24,841	\$27,580	\$30,487	\$33,054	\$34,537	\$21,470					

Averages:	
Age:	49.6
Service:	10.8
Annual Pay:	\$21,470



By Annual Pay

	Numt	per of Active Mem	pers		tion of Number		
Annual Pay	Men	Women	Totals	Group	Cumulative		
Less than \$1.000	218	239	457	0.4%	0.4%		
\$1,000 - 1,999	1,202	1,230	2,432	0.4%	2.4%		
2,000 - 2,999	2,164	2,059	4,223	3.5%	5.9%		
3.000 - 3.999	2,104	2,039	4,223	3.8%	9.7%		
4,000 - 4,999	1,693	2,241	3,960	3.3%	12.9%		
4,000 - 4,999	1,095	2,207	5,500	5.570	12.370		
5,000 - 5,999	1,357	2,241	3,598	3.0%	15.9%		
6.000 - 6.999	1,044	2,159	3,203	2.6%	18.5%		
7,000 - 7,999	811	2,221	3,032	2.5%	21.0%		
8,000 - 8,999	713	2,369	3,082	2.5%	23.6%		
9.000 - 9.999	694	2.282	2,976	2.5%	26.0%		
-,		, -	,				
10,000 - 11,999	1,252	4,421	5,673	4.7%	30.7%		
12,000 - 13,999	1,203	4,607	5,810	4.8%	35.5%		
14,000 - 15,999	1,219	5,214	6,433	5.3%	40.8%		
16,000 - 17,999	1,200	6,329	7,529	6.2%	47.0%		
18,000 - 19,999	1,180	5,982	7,162	5.9%	52.9%		
20,000 - 24,999	2,314	12,035	14,349	11.8%	64.7%		
25,000 - 29,999	2,048	7,925	9,973	8.2%	73.0%		
30,000 - 35,999	3,013	6,786	9,799	8.1%	81.1%		
36,000 and over	11,012	11,958	22,970	18.9%	100.0%		
Totals	36,686	84,565	121,251				



SCHEDULE F

GAIN/LOSS ANALYSIS DETAILS

COMMENTS

Regular actuarial valuations measure the Retirement System's present financial position and contributions adequacy by calculating and financing the liabilities created by the present benefit program. This process involves discounting to present values the future benefit payments on behalf of present active and retired members and their survivors. However, valuations do not produce information regarding the amount of increases or decreases in unfunded actuarial accrued liabilities (UAAL) -- gain/loss analyses do.

The overall gain/loss to the Retirement System is the difference between the actual UAAL and the expected UAAL. A gain/loss analysis shows the breakdown of the overall system gain/loss by economic and non-economic risk areas. The economic risk areas are investment return and pay increases. The non-economic risk areas are service retirement, disability retirement, death in active service, termination (vested and non-vested), retiree mortality, and new members. Gains and losses resulting from data adjustments, timing of financial transactions, etc. are included separately as a miscellaneous item.

It is expected that actual experience will not coincide 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. Changes in actuarial assumptions should be made for risk areas when the differences between actual and expected experience are consistently sizable over a period of years. Differences over a relatively short period of time may or may not be indicative of long-term trends, which are the basis of actuarial assumptions.

The actuarial assumptions used in this analysis were adopted by the Board in April 2011.

Any historical information and data shown in the report with a valuation date prior to June 30, 2008 were obtained from the previous actuary's report.



School Employees Retirement System of Ohio Experience Gains & Losses By Risk Area Comparative Schedule (\$ Millions)

	Gain (Loss) by Risk Area											
	Ecor	nomic				Non-Economi	C					
Year			Age &		Death							
Ending	Pay		Service		In		New	Retired				
June 30	Increases	Investment	Retirement	Disability	Service	Withdrawal	Members	Lives	Other ⁺	\$	% of AAL	
2005*	101.6	(397.4)	(82.6)	2.1	(0.7)	52.7	(42.7)	12.4	(81.7)	(436.3)	(3.9)	
2006*	76.4	44.7	37.9	1.2	0.2	(52.9)	(36.7)	15.8	(145.4)	(58.8)	(0.5)	
2007*	121.0	504.3	13.4	0.9	(0.3)	(73.2)	(37.2)	(10.2) 72.4 51.8	(1.1)	517.6	4.1	
2008	95.8	(6.6)	(96.1)	(3.5)	(0.6)	8.1	(51.3)		81.2	99.4	6.1	
2009	107.5	(2,265.2)	(50.8)	(28.7)	(0.6)	(11.9)	(50.4)		200.1	(2,048.2)	(14.0)	
2010	182.5	390.5	(40.6)	(23.4)	(0.5)	11.0	(38.1)	46.5	(29.6)	498.3	3.4	
2011	198.4	(1,082.9)	(59.2)	(28.1)	(0.7)	15.4	(36.4)	(1.0)	(10.0)	(1,004.5)	(6.2)	
2012	178.7	(692.0)	(154.8)	(47.7)	(0.2)	46.5	(29.8)	51.9	(6.2)	(653.6)	(3.9)	
2013	219.2	241.0	(121.9)	(53.6)	0.0	61.1	(35.1)	2.9	1.9	315.5	1.8	
2014	103.4	403.3	(122.6)	(56.0)	0.1	48.3	(28.2)	3.1	(2.1)	349.3	2.0	

* Reported by a prior actuary

⁺ Includes effect of changes in data, timing of financial transactions, etc.



The market related actuarial value of assets is based on a four-year average of adjusted market value returns. The difference between the actual returns at market value for the year and expected returns is determined. Twenty-five percent (25%) of that difference is added to the expected value along with corresponding amounts from each of the prior three years.

The actuarial value of assets for the basic benefits as of June 30, 2014 was \$12,030,478,476. The value for the previous year was \$11,125,960,356.

School Employees Retirement System of Ohio Development of Gain (Loss) for Basic Benefits From Investment Return For the Year Ended June 30, 2014 (\$ Millions)

			<u>\$ Millions</u>
1.	Actuarial va	lue of assets as of June 30, 2013	\$ 11,126.0
2.	Actuarial va a.	lue of assets as of June 30, 2014 Actual	12,030.5
	b.	If 7.75% assumed investment return was achieved for all phased-in years recognized in the asset method	11,627.2
3.	Gain (Loss)	: 2a minus 2b	\$ 403.3



Pay Increases During the 2013- 2014 Valuation Year
To Members Active at Beginning and End of Year

Central Age Group Beginning		Pay Inc	reases		
of Year	Number	Actual	Expected		
Under 25	2,148	(0.62)%	18.02%		
25	3,794	6.77	13.01		
30	4,777	6.54	9.57		
35	6,446	5.31	8.06		
40	10,334	5.33	7.03		
45	14,450	4.68	6.14		
50	19,282	3.67	5.30		
55	19,677	2.96	4.97		
60	13,193	2.32	4.86		
65 & Over	8,081	1.93	4.90		
Total	102,182	3.73	6.00		



Members Who Became Age & Service Retirees During the 2013- 2014 Valuation Year (Retirement With Allowance Beginning Immediately)

			Yea	ars of Service	to Valuation E	Date		
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	Total
Under 50					44		19	63
50					6		15	21
51 52					10 13	1	26 25	36 39
53					9		36	33 47
54					15	2 3	33	51
55					16	23	55	94
56					10	30	46	86
57					16	25	32	73
58					16	33	52	101
59					17	35	37	89
60		20	38	56	76	60	60	310
61		15	26	39	37	57	49	223
62		27	39	48	51	58	35	258
63		20 19	40	27	35	57	46	225
64		19	30	22	33	48	49	201
65		30	59	49	83	92	76	389
66		23	37	45	53	66	55	279
67		15	35	22	31	39	31	173
68		11	20	14	17	25	32	119
69		20	24	12	18	24	30	128
70 & Over		60	115	80	47	62	124	488
Totals	0	260	463	414	653	740	963	3,493

	Years of Service to Valuation Date														
	0-4	5-9		10-14		15-19		20-24		25-29		30 plus		Total	
Avg. Monthly Benefit	\$ 0	\$	327	\$	606	\$	844	\$	1,075	\$	1,403	\$	2,349	\$	1,331
Avg. FAS	\$ 0	\$	20,285	\$	26,788	\$	29,537	\$	30,229	\$	33,109	\$	41,922	\$	32,618
Number of Retirees	0		260		463		414		653		740		963		3,493

Average Age: 63.5 Average Service: 22.5



Members Who Died in 2013- 2014 Valuation Year With a Death-in-Service Allowance Payable

Central Age Group Beginning of Year	Number
Under 25 25 30 35	0
40 45	3
50	16
55	9
60	20
65	13
70 & Over	7
Total	72

Average Age: 57.3 Average Service: 17.2



Members Who Died in 2013- 2014 Valuation Year and Received a Refund of Contributions

Central Age Group Beginning of Year	Number
Under 25 25 30 35 40 45 50	1 3 4 1
55 60 65 70 & Over	2 2
Total	13

Average Age: 49.0 Average Service: 3.2



Members Who Became Disability Retirees During the 2013- 2014 Valuation Year

Central Age Group Beginning of Year	Number
Under 25 25 30 35 40	2 7
45 50 55 60 65	30 48 102 79 7
70 & Over	6
Total	281

Average Age: 54.2 Average Service: 13.5 Average FAS: \$30,674



Members Receiving a Refund of Contributions or Becoming Inactive Without a Refund in the 2013- 2014 Valuation Year (Non-vested Terminations)

Central Age Group Beginning of Year	Number
Under 25	861
25	2,348
30	1,558
35	1,182
40	1,193
45	1,465
50	1,286
55	1,115
60	602
65	274
70 & Over	192
Total	12,076

Average Age: 39.0 Average Service: 2.6



Members Who Became Inactive in the 2013- 2014 Valuation Year with a Deferred Allowance (Vested Terminations)

Central Age Group Beginning of Year	Number
Under 25	0
25	0
30	2
35	15
40	24
45	44
50	94
55	131
60	137
65	40
70 & Over	12
Total	499

Average Age: 54.2 Average Service: 13.4



SCHEDULE G

GLOSSARY

<u>Actuarial Accrued Liability.</u> The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability".

<u>Accrued Service</u>. The service credited under the plan which was rendered before the date of the actuarial valuation.

<u>Actuarial Assumptions</u>. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

<u>Actuarial Cost Method</u>. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

<u>Actuarial Equivalent</u>. A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

<u>Actuarial Present Value</u>. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

<u>Amortization</u>. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

<u>Experience Gain (Loss)</u>. A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

<u>Normal Cost</u>. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost". Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

<u>Plan Termination Liability</u>. The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a "going concern" basis and is not normally determined in a routine actuarial valuation.

<u>Reserve Account</u>. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

<u>Unfunded Actuarial Accrued Liability</u>. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability".

<u>Valuation Assets</u>. The value of current plan assets recognized for valuation purposes. Generally based on book value plus a portion of unrealized appreciation or depreciation.



APPENDIX A

ACTUARIAL ACCRUED LIABILITIES AS OF JUNE 30, 2014

Present Value of:	Pension Benefits		Medicare Part B		Post-Retirement Death Benefit			Total Basic Benefits		
Future benefits to present retirees and survivors	\$	9,868,848,889	\$	247,172,381	\$	25,938,654	\$	10,141,959,924		
Benefits and refunds to present inactive members		568,105,460		12,133,430		1,238,139		581,477,029		
Allowances to present active members										
Service		6,761,642,792		114,890,661		7,033,657		6,883,567,110		
Disability		266,863,707		4,542,620		394,282		271,800,609		
Survivor benefits		92,741,372		1,665,344		-		94,406,716		
Withdrawal		(101,486,678)		10,021,215		81,246		(91,384,217)		
Total Active AAL		7,019,761,193		131,119,840		7,509,185		7,158,390,218		
Total AAL	\$	17,456,715,542	\$	390,425,651	\$	34,685,978	\$	17,881,827,171		



APPENDIX B

BREAKDOWN OF TOTAL AND ACCRUED LIABILITIES AS OF JUNE 30, 2014

	Total Liability	Accrued Liability		
Active Members				
Retirement	\$8,257,403,670	\$6,761,642,792		
Death	128,023,666	92,741,372		
Disability	450,243,445	266,863,707		
Termination	792,458,122	(101,486,678)		
Medicare Part B	171,952,253	131,119,840		
Death after Retirement	<u>11,387,571</u>	<u>7,509,185</u>		
Total	\$9,811,468,727	\$7,158,390,218		
Retirees				
Retirement/Survivor/Disabilty	\$9,868,848,889	\$9,868,848,889		
Medicare Part B	247,172,381	247,172,381		
Death after Retirement	<u>25,938,654</u>	<u>25,938,654</u>		
Total	\$10,141,959,924	\$10,141,959,924		
Deferred Vested Members	294,647,465	294,647,465		
Inactive Members	<u>286,829,564</u>	<u>286,829,564</u>		
Total Actuarial Values	\$20,534,905,680	\$17,881,827,171		
Actuarial Value of Assets		<u>12,030,478,476</u>		
Unfunded Actuarial Accrued Liability		\$5,851,348,695		



APPENDIX C

COMPARATIVE SCHEDULE AS OF JUNE 30, 2014

						Reti	red Lives				
Valuation		Active N	lembers		Number				Accrued	Valuation	
Date		Payroll	Averag	ge Salary		Active /	Annual	Annual Benefits		Assets	UAAL
June 30	Number	\$ Millions	\$	% Increase	Retired	Retired	\$ Millions	% of Payroll			
2005	122,855	2,453	19,963	2.7	61,433	2.0	527.9	21.5	11,961	8,893	3,137 *
2006	123,266	2,553	20,714	3.8	62,521	2.0	566.8	22.2	12,627	9,542	3,155 *
2007	123,013	2,603	21,163	2.2	63,529	1.9	607.4	23.3	13,303	10,640	2,734 *
2008	124,370	2,652	21,322	0.8	64,818	1.9	652.4	24.6	14,062	11,372	2,689
2009	125,465	2,787	22,216	4.2	65,757	1.9	693.8	24.9	14,582	9,836	4,746
2010	126.015	2,843	22,558	1.5	66,127	1.9	729.9	25.7	15,222	10.909	4,312
2011	125,337	2,852	22,758	0.9	67,221	1.9	777.9	27.3	16,325	10,513	5,812
2012	121,811	2,788	22,889	0.6	69,038	1.8	838.1	30.1	16,755	10,397	6,358
2013	121,642	2,747	22,581	-1.3	70,771	1.7	898.3	32.7	17,247	11,126	6,121
2014	121,251	2,759	22,757	0.8	72,605	1.7	958.5	34.7	17,882	12,030	5,851

* after the adjustment to reflect health care asset restatement