



SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

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LISA J. MORRIS
Executive Director

HELEN M. NINOS
Deputy Executive Director

November 20, 2015

Bethany Rhodes, Director/General Counsel
Ohio Retirement Study Council
88 E. Broad St., Suite 1175
Columbus, OH 43215

Dear Bethany:

As required by section 3309.21(A) of the Ohio Revised Code, enclosed please find two new annual valuations prepared by SERS' actuary for our fiscal year ended June 30, 2015: the *Report on the Annual Basic Benefits Valuation*, and the *Report on the Retiree Health Care Valuation*.

As you review these reports, please feel free to contact me if you have any questions.

Sincerely,

Lisa J. Morris
Executive Director

Enclosures

- c: The Honorable Bill Coley, Chair, Senate Government Oversight & Reform
The Honorable, Anne Gonzales, Chair, House Health & Aging
Timothy Keen, Director, Office of Budget and Management

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

Prepared as of June 30, 2015





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

November 9, 2015

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 actuarially determined employer contribution rates for the fiscal year beginning July 1, 2015.

The date of the valuation was June 30, 2015.

The valuation was based upon data, furnished by the Executive Director and the SERS staff, concerning active, inactive and retiree 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 executive summary on page 1.

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



The 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,

A handwritten signature in blue ink that reads 'Todd B. Green' followed by a horizontal line.

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

A handwritten signature in blue ink that reads 'John J. Garrett' followed by a horizontal line.

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

TBG/JJG:kc

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

PREPARED AS OF JUNE 30, 2015

EXECUTIVE SUMMARY

The School Employees Retirement System of Ohio (SERS or System) is a defined benefit public pension fund that provides pensions and access to health care coverage for retired school employees who are covered in a nonteaching position. This includes bus drivers, custodians, administrators, administrative assistants, food service providers, and educational aides. This report presents the results of the June 30, 2015 actuarial funding valuation of the System. The primary purposes of performing the actuarial funding valuation are to:

- determine the sufficiency of the Statutory Contribution Rate as set forth in the Ohio statutes;
- determine the experience of the System since the last valuation date;
- disclose asset and liability measures as of the valuation date; and
- analyze and report on trends in System contributions, assets, and liabilities over the past several years.

There were no changes to the plan provisions or the actuarial methods from the prior valuation, however, the Board adopted a new funding policy on June 18, 2015. SERS' basic benefits include retirement, disability and survivor benefits, along with Medicare Part B reimbursements and lump sum retiree death benefits. SERS also provides access to health care coverage for retiree members. The current statutorily required employer contribution rate is 14% of covered payroll. The Health Care Fund is partially supported by employer contributions in accordance with the Board's funding policy.

The funding policy establishes ranges of the funded ratio for basic benefits that restrict the allocation of employer contributions to the Health Care Fund. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued liability of promised benefits. The Board seeks to maintain a funded ratio of at least 90% for basic benefits. If the basic benefit funded ratio is less than 70%, the entire 14% of the employers' contribution shall be allocated to basic benefits. If the funded ratio is at least 70% but less than 80%, the minimum portion of the employers' contribution allocated to basic benefits is 13.50% of payroll, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is at least 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund basic benefits. The new funding policy will accelerate the speed at which SERS' basic benefits will achieve a funded ratio equal to 90%.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on June 30, 2015. Actuarial gains and losses result when the actual experience of the plan (such as asset return, pay increases, turnover, deaths, etc.) is different from that expected by the actuarial assumptions. The System's unfunded actuarial accrued liability (UAAL) was expected to be \$5,913.9 million as of June 30, 2015, taking into account contributions from the employers and members of \$701.5 million. The actual UAAL is \$5,901.6 million. The decrease of \$12.3 million is due to an experience gain for the FY2015 plan year. The UAAL is being amortized as a level percentage of payroll over a closed 30-year period beginning with the June 30, 2012 valuation. The remaining amortization period of the UAAL is 27 years as of June 30, 2015. Detailed analysis of the gain and loss is presented in Section V.

The valuation is based on a series of actuarial assumptions, including an interest rate of 7.75% per year and an annual payroll growth assumption of 4.00%. There have been no changes in the actuarial assumptions since the previous valuation.



A summary of the key results from the June 30, 2015 actuarial valuation is shown below. Further detail on the valuation results can be found in the following sections of this Executive Summary.

	June 30, 2015 Valuation Results	June 30, 2014 Valuation Results
Actuarially Determined Contribution Rate	13.02%	13.18%
Statutory Contribution Rate	14.00%	14.00%
Sufficiency/(Deficiency)	0.98%	0.82%
Remaining Amortization Period	27	28
Unfunded Actuarial Accrued Liability (\$M)	\$5,901.6	\$5,851.3
Basic Benefits Funded Ratio (Actuarial Assets)	68.11%	67.28%

The funded ratio of the basic benefits is 68.11%. Since this is less than 70%, per the Board-adopted funding policy, the basic benefits shall receive the entire employer contribution of 14% of compensation for FY2016. The Health Care Fund will receive no portion of the employer contribution rate.

EXPERIENCE FOR THE LAST PLAN YEAR

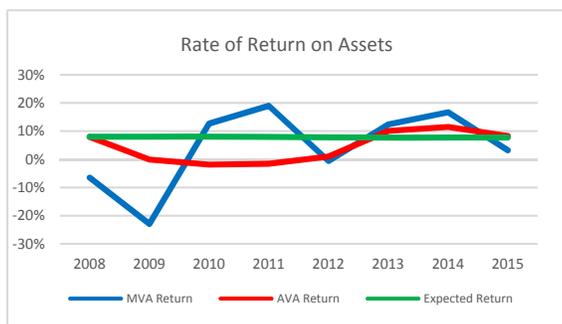
Numerous factors contributed to the change in the System's assets, liabilities, and actuarial contribution rate between June 30, 2014 and June 30, 2015. The components are examined in the following discussion.

ASSETS

As of June 30, 2015, SERS basic benefits had net assets of \$12,797,184,030, when measured on a market value basis. This was a decrease of \$23,700,077 from the previous year. The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability and the actuarially determined contribution. The asset valuation method, which recognizes the annual unexpected portion of market value investment returns over a four-year period, attempts to dampen the effect of market volatility. The resulting amount is called the "actuarial value of assets" and is utilized to determine the actuarial valuation results. In this year's valuation, the actuarial value of assets as of June 30, 2015 was \$12,601,679,774, an increase of \$571,201,298 from the value in the prior year. The components of change in the asset values are shown in the following table:

	Actuarial Value	Market Value
Net Assets, June 30, 2014	\$ 12,030,478,476	\$ 12,820,884,107
- Employer and Member Contributions	+ 701,545,178	+ 701,545,178
- Benefit Payments	- 1,108,994,875	- 1,108,994,875
- Investment Income	+ 978,650,995	+ (383,749,620)
Net Assets, June 30, 2015	\$ 12,601,679,774	\$ 12,797,184,030

On a market-value basis, the estimated rate of return was 3.2%, assuming all cash flows occur in the middle of the year. Due to the better-than-assumed prior returns on the market value of assets, the net rate of return measured on the actuarial value of assets was 8.3%. As this rate of return was greater than the assumed rate of 7.75%, there was an actuarial investment gain of \$62.1 million. Please see Section III, Schedule B, and Schedule F of this report for more detailed information on the market and actuarial value of assets.



Market value returns have been very volatile. An asset smoothing method is used to calculate the actuarial value of assets that recognizes investment gains and losses equally over a four-year period. As can be seen in this graph, the return on actuarial assets is much smoother than the return on market value.

LIABILITIES

The actuarial accrued liability is that portion of the present value of future benefits allocated to service performed up to the valuation date. The difference between this liability and the actuarial value of assets is called the unfunded actuarial accrued liability (UAAL). The dollar amount of unfunded actuarial accrued liability is reduced if the contributions to the System exceed the normal cost for the year, plus interest on the prior year's UAAL.

The unfunded actuarial accrued liability is shown as of June 30, 2015 in the following table:

	Actuarial Value of Assets	Market Value of Assets
Actuarial Accrued Liability	\$18,503,280,961	\$18,503,280,961
Value of Assets	12,601,679,774	12,797,184,030
Unfunded Actuarial Accrued Liability*	5,901,601,187	5,706,096,931
Funded Ratio	68.11%	69.16%

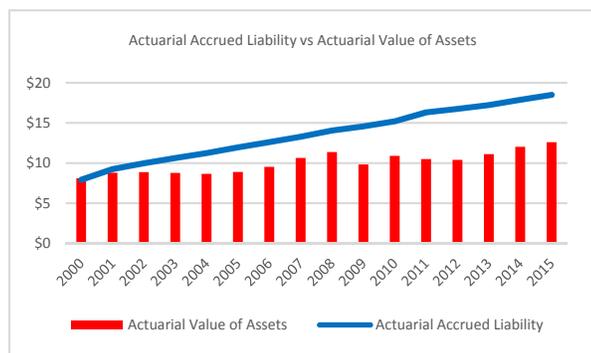
* See Appendix B of the report for the detailed development of the unfunded actuarial accrued liability.

Changes in the UAAL occur for various reasons. The net increase in the UAAL from June 30, 2014 to June 30, 2015 was \$50,252,492. The components of this net change are shown in the table below:

Unfunded Actuarial Accrued Liability, June 30, 2014		\$5,851.3
(\$ Millions)		
· Expected increase due to amortization method	\$62.6	
· Investment experience	(62.1)	
· Liability experience	49.8	
· Total		50.3
Unfunded Actuarial Accrued Liability, July 1, 2015		\$5,901.6



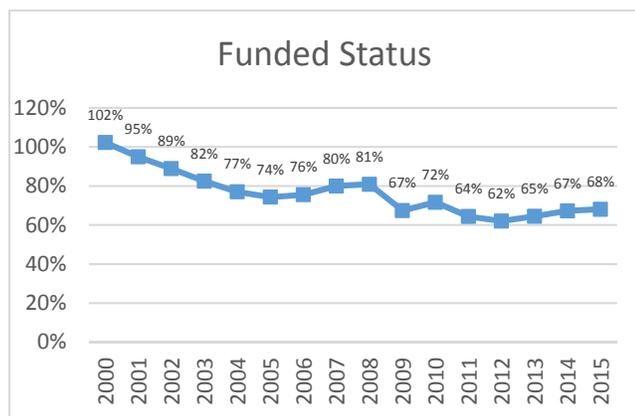
As shown on the previous page, various components impacted the UAAL. Actuarial gains (losses), which result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions, are reflected in the UAAL and are measured as the difference between the expected unfunded actuarial accrued liability and the actual unfunded actuarial accrued liability, taking into account any changes due to actuarial assumptions and methods or benefit provision changes. Overall, the System experienced a net actuarial gain of \$12.3 million. The net actuarial gain may be explained by considering the separate experience of assets and liabilities. As noted earlier, there was a \$62.1 million gain, measured on the actuarial value of assets. There was a net liability loss of \$49.8 million which arose from overall demographic experience in FY2015 being less favorable than anticipated by the actuarial assumptions. The liability experience was the result of various components of actuarial gains and losses; the largest was retirement experience losses offset by gains from salary increases that were lower than expected, and favorable mortality experience.



The actuarial value of assets was slightly higher than the actuarial accrued liability as of June 30, 2000. Investment experience below the assumed rate of return increased the difference between the actuarial accrued liability and actuarial assets. SERS implemented pension reform to improve the System's funding progress. In addition, the Board adopted a new funding policy that will allocate a higher portion of the employer contribution toward the basic benefits until the fund achieves a funded status of 90%.

An evaluation of the unfunded actuarial accrued liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial accrued liability and the progress made in its funding is to track the funded ratio, the ratio of the actuarial value of assets to the actuarial accrued liability. The funded status information for the most recent five years is shown below (in millions).

	6/30/11	6/30/12	6/30/13	6/30/14	6/30/15
Funded Ratio	64.4%	62.1%	64.5%	67.3%	68.1%
Unfunded Actuarial Accrued Liability (\$M)	\$5,811.9	\$6,357.7	\$6,121.2	\$5,851.3	\$5,901.6



The funded ratio has decreased over this period largely due to investment experience being less than the assumed rate of return. Pension reform passed by the legislature, the final recognition of the 2008 and 2009 losses, and the strong investment returns since FY2010 have resulted in the funded ratio beginning to rebound.



CONTRIBUTION RATE

Under the Entry Age Normal cost method, the actuarial contribution rate consists of two components:

- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date which is funded by both member and employer contributions, and
- an "unfunded actuarial accrued liability contribution" for the excess of the portion of projected liabilities allocated to service-to-date over the actuarial value of assets.

See Section VI of the report for the detailed development of these contribution rates which are summarized in the following table:

Contribution Rates	June 30, 2015	June 30, 2014
1. Employer Portion of Normal Cost Rate	1.26%	1.41%
2. UAAL Contribution Rate	11.76%	11.77%
3. Total Actuarial Determined Contribution Rate (1) + (2)	13.02%	13.18%
4. Funded Ratio	68.11%	67.28%
5. Total Employer Contribution Rate	14.00%	13.18%
6. Amount Allocated to Basic Benefits	14.00%	13.18%

As discussed earlier, SERS' basic benefits includes retirement, disability and survivor benefits, along with Medicare Part B reimbursements and lump sum retiree death benefits. SERS also provides access to health care coverage for retiree members. The Health Care Fund is partially supported by employer contributions that are not required for actuarially funding basic benefits. The new funding policy is expected to accelerate the pace at which SERS' basic benefits will achieve a funded ratio equal to 90%.

SUMMARY

The investment return on the market value of assets for FY2015 was 3.2%. Due to the recognition of deferred investment gains and losses from prior years, the return on the actuarial value of assets was 8.3%. The excess rate of return on the actuarial value of assets offset by demographic losses, is the reason the funded ratio for basic benefits increased from 67.28% in last year's valuation to 68.11% this year.

As mentioned earlier, the System utilizes an asset smoothing method in the valuation process. While this is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred investment experience. The asset smoothing method impacts only the timing of when the actual market experience is recognized in the valuation process. The deferred investment experience gain of \$195.5 million will provide some margin to absorb future investment experience that is less than the assumed rate of return.

The long-term financial health of SERS, like all retirement systems, is heavily dependent on two key items: (1) future investment returns, and (2) contributions to the System. The Board's recent action to prioritize funding of basic benefits over funding health care, along with recent pension reform, has strengthened the long-term position of the basic benefits.

We conclude this executive summary by presenting comparative statistics and actuarial information on both the June 30, 2015 and June 30, 2014 valuations.



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

PREPARED AS OF JUNE 30, 2015

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2015, 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.

SUMMARY OF PRINCIPAL RESULTS

	June 30, 2015	June 30, 2014
Active members included in valuation		
Number	122,855	121,251
Annual Compensation	\$2,845,443,802	\$2,759,281,606
Retirees		
Number	74,372	72,605
Annual allowances	\$1,020,368,894	\$958,537,700
Deferred Vesteds		
Number	6,863	7,049
Annual deferred allowances	\$29,032,821	\$29,152,306
Assets (net of Health Care Assets)		
Market related actuarial value	\$12,601,679,774	\$12,030,478,476
Market value	\$12,797,184,030	\$12,820,884,107
Unfunded Accrued Liability	\$5,901,601,187	\$5,851,348,695
Funded Ratio (MVA/AAL)		
Basic Benefits	68.81%	68.07%
Medicare Part B	35.27%	32.71%
Post-retirement Death Benefits	60.75%	60.00%
Actuarially Determined Contribution Rate		
Normal	1.26%	1.41%
Accrued liability	<u>11.76%</u>	<u>11.77%</u>
Total	13.02%	13.18%
Funding Policy Contribution Rate	14.00%	n/a
Accrued liability amortization period (years)	27	28



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. If the funded ratio is less than 70%, the entire 14% employers' contribution shall be allocated to SERS' basic benefits. If the funded ratio is 70% but less than 80%, at least 13.50% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund SERS' basic benefits.
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, 2015 upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Active Members

Number	Payroll	Group Averages		
		Salary	Age	Service
122,855	\$2,845,443,802	\$23,161	48.5	9.7

The total number of active members includes 55,624 vested members and 67,231 non-vested members. Those who reach 25 years of service on or before August 1, 2017 will be eligible to retire under the previous age and service credit eligibility requirements.

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
6/30/2010	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
6/30/2015	122,855	2,845,443,802	23,161	1.8



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

Retiree Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age
Retirees and Beneficiaries	64,445	\$892,999,525	\$13,857	74.7
Disability	5,538	91,136,412	16,457	65.1
Survivors	4,389	36,232,957	8,255	71.7
Total in SERS	74,372	\$1,020,368,894	\$13,720	73.8

This valuation also includes 89,794 inactive members eligible for a contribution refund only (including 39,142 members reported separately who had completed one or more years of service before terminating). Their contributions totaled \$200,276,959 as of June 30, 2015. There were also 6,863 terminated vested members with annual deferred pension benefits of \$29,032,821. Included in the "Retiree" numbers in the above table are 11,616 re-employed retirees with account balances of \$77,996,437 (including employer contributions and interest), 504 re-retirees receiving only an annuity from their contributions and their employers' matching contributions, and 550 re-retirees receiving such annuities in addition to their regular pension benefits. The sum of the annuity payments attributable to these re-retirees is \$3,952,282.



SECTION III – ASSETS

1. As of June 30, 2015 the total market value of assets amounted to \$13,205,547,628. 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, 2014	\$	13,234,742,308
(2)	Contributions and Misc. Revenue		858,812,052
(3)	Investment Gain (Loss)		420,739,051
(4)	Benefit Payments		(1,308,745,783)
(5)	Assets at June 30, 2015 (1) + (2) + (3) + (4)	\$	13,205,547,628
(6)	Annualized Rate of Return*		3.2 %

2. The four-year smoothed market related actuarial value of assets used for the current valuation was \$12,601,679,774. Schedule B shows the development of the actuarial value of assets as of June 30, 2015. 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, 2014	\$	12,444,336,677
(2)	Contributions and Misc. Revenue		858,812,052
(3)	Investment Gain (Loss)		1,015,640,426
(4)	Benefit Payments		(1,308,745,783)
(5)	Assets at June 30, 2015 Before Application of Corridor (1) + (2) + (3) + (4)	\$	13,010,043,372
(6)	Annualized Rate of Return*		8.3 %

*Based on the approximation formula: $I/[0.5 \times (A + B - I)]$, 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, 2015.

1. The total retirement benefit valuation balance sheet shows that the System has total future retirement benefit liabilities of \$21,187,431,655, of which \$10,760,780,183 is for the future benefits payable for present retiree members and beneficiaries of deceased members; \$565,025,161 is for the future benefits payable for present inactive members; and \$9,861,626,311 is for the future benefits payable for present active members. Against these retirement benefit liabilities the System has a total present actuarial value of assets of \$12,601,679,774 as of June 30, 2015. The difference of \$8,585,751,881 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future for retirement benefits. Of this amount, \$2,448,632,107 is the present value of future contributions expected to be made by members, and the balance of \$6,137,119,774 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 1.04% of payroll for basic pension benefits, 0.02% of payroll for post-retirement death benefits, and 0.20% 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 \$235,518,587.
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 11.24% 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 0.49% of payroll. These rates are sufficient to amortize the unfunded accrued liability of \$5,901,601,187 over 27 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 \$6,137,119,774.



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, 2015 is shown below.

Experience Gain/(Loss) (\$ Millions)

Total Basic June 30,		2015	2014	2013	2012	2011	2010
(1)	UAAL from last valuation	\$ 5,851.3	6,121.2	6,357.7	5,811.9	4,312.5	4,745.8
(2)	Normal cost from last valuation	313.6	308.9	311.9	334.3	392.0	386.3
(3)	Contributions	701.5	700.7	695.1	696.7	682.4	703.7
(4)	Interest accrual: [(1) + (2) - (3)*.5] x .0775	450.5	471.2	490.0	449.3	349.1	382.4
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 5,913.9	6,200.6	6,464.5	5,898.8	4,371.2	4,810.8
(6)	Change due to plan amendments	0.0	0.0	27.8	194.7	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0	0.0	(436.2)	0.0
(8)	Expected UAAL after changes: (5) - (6) - (7)	\$ 5,913.9	6,200.6	6,436.7	5,704.1	4,807.4	4,810.8
(9)	Actual UAAL from this valuation	\$ 5,901.6	5,851.3	6,121.2	6,357.7	5,811.9	4,312.5
(10)	Total Gain/(loss): (8) - (9)	\$ 12.3	349.3	315.5	(653.6)	(1,004.5)	498.3
(11)	Investment Gain/(loss):	\$ 62.1	403.3	241.0	(692.2)	(1,082.9)	390.6
(12)	Non-Investment Gain/(loss)	\$ (49.8)	(54.0)	74.4	38.6	67.4	107.8

Pension June 30,		2015	2014	2013	2012	2011	2010
(1)	UAAL from last valuation	\$ 5,574.6	5,838.1	6,072.1	5,531.0	4,056.8	4,486.0
(2)	Normal cost from last valuation	307.7	303.0	305.9	327.9	383.9	378.5
(3)	Contributions	678.6	677.8	673.0	673.7	659.0	679.9
(4)	Interest accrual: [(1) + (2) - (3)*.5] x .0775	429.6	449.7	468.2	428.0	318.6	362.0
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 5,633.3	5,913.0	6,173.2	5,613.2	4,100.3	4,546.6
(6)	Change due to plan amendments	0.0	0.0	27.1	189.0	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0	0.0	(424.5)	0.0
(8)	Expected UAAL after changes: (5) - (6) - (7)	\$ 5,633.3	5,913.0	6,146.1	5,424.2	4,524.8	4,546.6
(9)	Actual UAAL from this valuation	\$ 5,640.9	5,574.6	5,838.1	6,072.1	5,531.0	4,056.8
(10)	Total Gain/(loss): (8) - (9)	\$ (7.6)	338.4	308.0	(647.9)	(1,006.2)	489.8
(11)	Investment Gain/(loss):	\$ 60.6	398.0	237.9	(683.6)	(1,068.1)	386.4
(12)	Non-Investment Gain/(loss)	\$ (68.2)	(59.6)	70.1	35.7	61.9	103.4



SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES

**Experience Gain/(Loss)
(\$ Millions)**

Medicare Part B June 30,		2015	2014	2013	2012	2011	2010
(1)	UAAL from last valuation	\$ 262.7	268.3	270.0	266.5	244.5	248.0
(2)	Normal cost from last valuation	5.4	5.4	5.5	5.9	7.4	7.1
(3)	Contributions	21.5	21.5	20.7	21.5	22.2	22.6
(4)	Interest accrual: [(1) + (2) - (3)*.5] x .0775	19.9	20.4	20.5	20.3	18.7	19.5
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 266.5	272.6	275.3	271.2	248.3	252.0
(6)	Change due to plan amendments	0.0	0.0	0.6	5.6	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0	0.0	(10.5)	0.0
(8)	Expected UAAL after changes: (5) - (6) - (7)	\$ 266.5	272.6	274.7	265.6	258.8	252.0
(9)	Actual UAAL from this valuation	\$ 246.9	262.7	268.3	270.0	266.5	244.5
(10)	Total Gain/(loss): (8) - (9)	\$ 19.6	9.9	6.4	(4.4)	(7.7)	7.5
(11)	Investment Gain/(loss):	\$ 1.3	4.5	2.6	(7.3)	(12.8)	3.5
(12)	Non-Investment Gain/(loss)	\$ 18.3	5.4	3.8	2.9	5.1	4.0

Post-Retirement Death Benefits June 30,		2015	2014	2013	2012	2011	2010
(1)	UAAL from last valuation	\$ 14.0	14.8	15.6	14.4	11.2	11.8
(2)	Normal cost from last valuation	0.5	0.5	0.5	0.5	0.7	0.7
(3)	Contributions	1.5	1.4	1.4	1.5	1.2	1.2
(4)	Interest accrual: [(1) + (2) - (3)*.5] x .0775	1.1	1.1	1.2	1.1	0.9	1.0
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 14.1	15.0	15.9	14.5	11.6	12.3
(6)	Change due to plan amendments	0.0	0.0	0.1	0.1	0.0	0.0
(7)	Change due to new actuarial assumption or methods	0.0	0.0	0.0	0.0	(1.2)	0.0
(8)	Expected UAAL after changes: (5) - (6) - (7)	\$ 14.1	15.0	15.8	14.4	12.8	12.3
(9)	Actual UAAL from this valuation	\$ 13.8	14.0	14.8	15.6	14.4	11.2
(10)	Total Gain/(loss): (8) - (9)	\$ 0.3	1.0	1.0	(1.2)	(1.6)	1.1
(11)	Investment Gain/(loss):	\$ 0.2	0.8	0.5	(1.3)	(2.0)	0.7
(12)	Non-Investment Gain/(loss)	\$ 0.1	0.2	0.5	0.1	0.4	0.4



ANALYSIS OF FINANCIAL EXPERIENCE

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

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/15			
	Pension	Medicare Part B	Post-Retirement Death Benefits	Total Basic Benefits
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (124.4)	\$ 1.5	\$ (0.1)	\$ (123.0)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	(52.4)	(0.6)	(0.1)	(53.1)
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.0	(0.0)	(0.0)	0.0
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	63.2	1.7	0.2	65.1
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	53.3	0.0	0.0	53.3
New Members. Additional accrued liability attributable to members who entered the plan since the last valuation.	(46.0)	(1.5)	(0.1)	(47.7)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	60.6	1.3	0.2	62.1
Death After Retirement. If retired members live longer than assumed, there is a loss. If not as long, a gain.	39.0	16.9	(0.1)	55.8
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	(0.8)	0.4	0.3	(0.2)
Gain (or Loss) During Year From Financial Experience	\$ (7.6)	\$ 19.6	\$ 0.3	\$ 12.3
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	\$ (7.6)	\$ 19.6	\$ 0.3	\$ 12.3



SECTION VI – ACTUARIALLY DETERMINED 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.

Actuarially Determined Contribution Rates

Contribution for	Pension	Post-Retirement Death Benefits	Medicare Part B	Total Basic Benefits
A. Normal Cost:				
(1) Service retirement benefits	6.47%			
(2) Disability benefits	0.76			
(3) Survivor benefits	0.16			
(4) Refunds	3.65			
(5) Total	11.04%			
B. Member Contributions	10.00%	0.00%	0.00%	10.00%
C. Employer Normal Cost: [A(5) - B]	1.04%	0.02%	0.20%	1.26%
D. Unfunded Actuarial Accrued Liability Contributions	11.24%	0.03%	0.49%	11.76%
E. Total Recommended Employer Contribution Rate:[C+D]	12.28%	0.05%	0.69%	13.02%

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. If the funded ratio is less than 70%, the entire 14% employers' contribution shall be allocated to SERS' basic benefits. If the funded ratio is 70% but less than 80%, at least 13.50% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund SERS' basic benefits.



SECTION VII – SCHEDULE OF FUNDING PROGRESS
(\$ Millions)

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial 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)
Pension Benefits						
6/30/2010	\$ 10,766	\$ 14,823	\$ 4,057	72.6%	\$ 2,843	142.7%
6/30/2011	10,378	15,910	5,532	65.2	2,852	194.0
6/30/2012	10,266	16,338	6,072	62.8	2,788	217.8
6/30/2013	10,988	16,826	5,838	65.3	2,747	212.5
6/30/2014	11,882	17,457	5,575	68.1	2,759	202.1
6/30/2015	12,446	18,087	5,641	68.8	2,845	198.3
Medicare Part B						
6/30/2010	\$ 122	\$ 367	\$ 244	33.3%	\$ 2,843	8.6%
6/30/2011	116	382	266	30.3	2,852	9.3
6/30/2012	113	383	270	29.5	2,788	9.7
6/30/2013	119	387	268	30.6	2,747	9.8
6/30/2014	128	390	262	32.7	2,759	9.5
6/30/2015	134	381	247	35.3	2,845	8.7
Post-Retirement Death Benefits						
6/30/2010	\$ 21	\$ 32	\$ 11	65.6%	\$ 2,843	0.4%
6/30/2011	19	33	14	57.6	2,852	0.5
6/30/2012	18	34	16	52.9	2,788	0.6
6/30/2013	19	34	15	55.9	2,747	0.5
6/30/2014	21	35	14	60.0	2,759	0.5
6/30/2015	21	35	14	60.0	2,845	0.5



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, 2015 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2014. 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, 2015	June 30, 2014
ASSETS		
Current actuarial value of assets	\$ 12,601,679,774	\$ 12,030,478,476
Prospective contributions		
Member contributions	\$ 2,448,632,107	\$ 2,386,907,773
Employer normal contributions	235,518,587	266,170,736
Unfunded accrued liability contributions	5,901,601,187	5,851,348,695
Total prospective contributions	<u>\$ 8,585,751,881</u>	<u>\$ 8,504,427,204</u>
Total assets	<u>\$ 21,187,431,655</u>	<u>\$ 20,534,905,680</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 10,760,780,183	\$ 10,141,959,924
Present value of benefits payable on account of active members	9,861,626,311	9,811,468,727
Present value of benefits payable on account of inactive and deferred vested members	565,025,161	581,477,029
Total liabilities	<u>\$ 21,187,431,655</u>	<u>\$ 20,534,905,680</u>



The following tables provide the solvency test for SERS members.

**Solvency Test
(\$ Millions)**

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
	(1)	(2)	(3)	Actuarial Value of Assets	(1)	(2)	(3)
	Active Member Contributions	Retired Members & Beneficiaries	Active Members (Employer Financed Portion)				
Pension Benefits							
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
6/30/2015	2,979	11,046	4,062	12,446	100.0	85.7	0.0
Medicare Part B							
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
6/30/2015	0	252	130	134	100.0	53.2	0.0
Post-Retirement Death Benefits							
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
6/30/2015	0	28	7	21	100.0	75.0	0.0



SCHEDULE B
Development of Actuarial Value of Assets

Valuation date June 30:	2014	2015	2016	2017	2018
A. Actuarial Value Beginning of Year	\$ 11,505,141,382	\$12,444,336,677			
B. Market Value End of Year	13,234,742,308	13,205,547,628			
C. Market Value Beginning of Year	11,679,663,055	13,234,742,308			
D. Cash Flow					
D1. Contributions	\$ 746,817,383	\$ 770,450,045			
D2. Other Revenue	127,867,227	116,501,166			
D3. Benefit Payments	(1,229,483,083)	(1,308,745,783)			
D4. Net Transfers	<u>(7,535,690)</u>	<u>(28,139,159)</u>			
D5. Net	\$ (362,334,163)	\$ (449,933,731)			
E. Investment Income					
E1. Market Total: B.-C.-D5.	\$ 1,917,413,416	\$ 420,739,051			
E2. Assumed Rate (Net of Expenses)	7.75%	7.75%			
E3. Amount for Immediate Recognition	891,133,438	1,008,257,597			
E4. Amount for Phased-In Recognition	1,026,279,978	(587,518,546)			
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.25 * E4.	\$ 256,569,995	\$ (146,879,637)	\$ 0	\$ 0	\$ 0
F2. First Prior Year	123,003,178	256,569,995	(146,879,637)	0	0
F3. Second Prior Year	(225,310,707)	123,003,178	256,569,995	(146,879,637)	0
F4. Third Prior Year	<u>256,133,554</u>	<u>(225,310,707)</u>	<u>123,003,178</u>	<u>256,569,995</u>	<u>(146,879,637)</u>
F5. Total Recognized Investment Gain/(Loss)	\$ 410,396,020	\$ 7,382,829	\$ 232,693,536	\$ 109,690,358	\$ (146,879,637)
G. Preliminary Actuarial Value End of Year:					
A.+D5.+E3.+F5.	\$ 12,444,336,677	\$13,010,043,372			
H. Corridor					
H1. 80% of Market Value	\$ 10,587,793,846	\$10,564,438,102			
H2. 120% of Market Value	\$ 15,881,690,770	\$15,846,657,154			
I. Actuarial Value End of Year:					
G. Not Less than H1. or Not Greater than H2	\$ 12,444,336,677	\$13,010,043,372			
J. Difference Between Market & Actuarial Values	\$ 790,405,631	\$ 195,504,256	\$ (37,189,279)	\$ (146,879,637)	\$ 0
K. Health Care Valuation Assets	\$ 413,858,201	\$ 408,363,598			
L. Basic Benefits Valuation Assets	\$ 12,030,478,476	\$12,601,679,774			

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

Age	Annual Rates of			
	Death		Disability	
	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:

Service	Annual Rates of		
	Merit & Seniority	Base (Economy)	Increase Next Year
0	17.31%	4.00%	22.00%
1	7.69	4.00	12.00
2	5.29	4.00	9.50
3	3.85	4.00	8.00
4	2.88	4.00	7.00
5	1.92	4.00	6.00
6	1.20	4.00	5.25
7	0.96	4.00	5.00
8	0.48	4.00	4.50
9	0.24	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.

FUNDING POLICY: If the funded ratio is less than 70%, the entire 14% employers' contribution shall be allocated to SERS' basic benefits. If the funded ratio is 70% but less than 80%, at least 13.50% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund SERS' basic benefits.



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 Average Salary	Average annual salary over the member's three highest years of service.
Normal Retirement	
Condition for Retirement	
<i>Retire before August 1, 2017 or have 25 years of service or more on or before August 1, 2017</i>	Attainment of age 65 with at least five years of creditable service, or completion of 30 years of creditable service, regardless of age.
<i>Members attaining 25 years of service after August 1, 2017</i>	Attainment of age 67 with at least ten years of creditable service, or attainment of age 57 with at least 30 years of creditable service. Buy-up option available.
Amount of Allowance	The annual retirement allowance payable shall not be greater than 100% of final average salary, and is the greater of: 1. Money Purchase - the greater of: The sum of: a. An annuity based on the value of the member's accumulated contributions at retirement b. A pension equal to the annuity c. For members who have 10 or more years of service credit prior to 10/1/1956, an annual benefit of \$180. 2. Defined Benefit - the greater of: The sum of: a. 2.2% of final average salary multiplied by the member's years of service up to 30, b. 2.5% of final average salary multiplied by the member's years of service in excess of 30, or: c. \$86 multiplied by the years of service.



Early Retirement

Condition for Early Retirement

Retire before August 1, 2017 or have 25 years of service or more on or 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.

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:

<u>Attained Age</u>	<u>Years of Ohio Service Credit</u>	<u>Percentage</u>
58	25	75%
59	26	80
60	27	85
61	28	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:

<u>Years of Ohio Service Credit</u>	<u>Percentage</u>
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:

<u>Age at Disability</u>	<u>Minimum Duration In Months</u>
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:



1. **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:

<u>Number of Qualified Survivors</u>	<u>Annual Benefit as Percent of Member's FAS</u>	<u>Minimum Monthly 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:

<u>Years of Service</u>	<u>Annual Benefit as Percent 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 62nd 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	<p>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.</p> <p>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.</p>
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 Retiree Members Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending June 30	2010	2011	2012	2013	2014	2015
<u>Number of Retiree Members</u>						
Beginning of Year	65,757	66,127	67,221	69,038	70,771	72,605
Added	2,694	3,472	4,137	4,197	4,144	4,909
Removed	2,324	2,378	2,320	2,464	2,310	3,142
End of Year	66,127	67,221	69,038	70,771	72,605	74,372
<u>Annual Retirement Allowances</u>						
Beginning of Year	\$ 693,838,994	\$ 729,859,717	\$ 777,910,918	\$ 838,076,567	\$ 898,267,601	\$ 958,537,700
Added	37,351,889	49,577,810	61,519,329	62,841,820	61,331,002	70,608,680
Removed	1,331,166	1,526,603	1,353,680	2,650,786	1,060,903	8,777,486
End of Year	\$ 729,859,717	\$ 777,910,918	\$ 838,076,567	\$ 898,267,601	\$ 958,537,700	\$ 1,020,368,894
% Increase in Allowances	5.19%	6.58%	7.73%	7.18%	6.71%	6.45%
Average Annual Allowance	\$ 11,037	\$ 11,572	\$ 12,139	\$ 12,693	\$ 13,202	\$ 13,720



**Schedule of Retiree Members Receiving a Medicare Part B Reimbursement
Added to and Removed From Rolls
Last Three Fiscal Years**

Year Ending June 30	2013	2014	2015
<u>Number of Retiree Members</u>			
Beginning of Year	47,631	47,376	47,298
Added	2,569	2,225	1,853
Removed	2,824	2,303	2,532
End of Year	47,376	47,298	46,619
<u>Annual Retirement Allowances</u>			
Beginning of Year	\$ 26,006,526	\$ 25,867,296	\$ 25,824,708
Added	1,402,674	1,214,850	1,011,738
Removed	1,541,904	1,257,438	1,382,472
End of Year	\$ 25,867,296	\$ 25,824,708	\$ 25,453,974
% Increase in Allowances	(0.54)%	(0.16)%	(1.44)%
Average Annual Allowance	\$ 546	\$ 546	\$ 546



**Annuity and Pension Reserve Fund
Retiree Information as of June 30, 2015
Tabulated by Type of Benefit**

Amount of Monthly Benefit		Total	Service	Disability	Survivor
\$ 1 - \$ 250		10,863	9,875	71	917
251 - 500		11,506	9,778	514	1,214
501 - 750		10,685	9,033	772	880
751 - 1,000		8,742	7,316	882	544
1,001 - 1,500		12,554	10,725	1,362	467
1,501 - 2,000		7,471	6,401	889	181
Over 2,000		<u>12,047</u>	<u>10,813</u>	<u>1,048</u>	<u>186</u>
		73,868	63,941	5,538	4,389

Average Monthly Benefit	\$ 1,162	\$ 1,371	\$ 688
Average Age	74.2	65.1	71.7

The 63,941 service retirees shown in the table above are comprised of 58,608 service retirees and 5,333 beneficiaries of deceased retirees. Excluded from the 58,608 service retirees are 504 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
Retiree Information as of June 30, 2015
Tabulated by Attained Ages**

Attained Age	Retirement		Disability Retirement		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	0	\$ -	87	\$ 1,120,794	87	\$ 1,120,794
45-49	35	\$ 1,068,222	194	\$ 3,158,618	229	\$ 4,226,840
50-54	489	\$ 16,958,709	495	\$ 9,271,997	984	\$ 26,230,706
55-59	1,919	\$ 60,055,341	1047	\$ 20,179,215	2,966	\$ 80,234,556
60-64	6,831	\$ 120,885,021	1264	\$ 23,484,099	8,095	\$ 144,369,120
65-69	12,174	\$ 189,429,237	829	\$ 14,689,221	13,003	\$ 204,118,458
70-74	11,447	\$ 164,078,135	626	\$ 9,272,968	12,073	\$ 173,351,103
75-79	10,193	\$ 134,648,928	452	\$ 5,380,966	10,645	\$ 140,029,894
80-84	7,603	\$ 88,092,180	319	\$ 2,865,537	7,922	\$ 90,957,717
85-89	5,215	\$ 50,472,416	152	\$ 1,306,665	5,367	\$ 51,779,081
90 & Over	3,206	\$ 23,142,009	73	\$ 406,332	3,279	\$ 23,548,341
Totals	59,112	\$ 848,830,198	5,538	\$ 91,136,412	64,650	\$ 939,966,610

The 59,112 service retirees shown in the table above are comprised of 58,608 unique service retirees, and 504 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 as of June 30, 2015
Tabulated by Attained Ages**

Attained Age	Life Annuities		Periods Certain		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	40	\$ 167,247	8	\$ 88,833	48	\$ 256,080
45-49	23	\$ 126,150	8	\$ 76,715	31	\$ 202,865
50-54	45	\$ 268,422	3	\$ 9,694	48	\$ 278,116
55-59	99	\$ 1,189,204	1	\$ 605	100	\$ 1,189,809
60-64	187	\$ 2,198,774	3	\$ 86,442	190	\$ 2,285,216
65-69	372	\$ 4,175,633	6	\$ 45,511	378	\$ 4,221,144
70-74	599	\$ 5,587,914	9	\$ 68,639	608	\$ 5,656,553
75-79	852	\$ 7,118,632	5	\$ 55,376	857	\$ 7,174,008
80-84	1,137	\$ 9,562,047	2	\$ 12,081	1,139	\$ 9,574,128
85-89	1,102	\$ 8,426,299	0	\$ -	1,102	\$ 8,426,299
90 & Over	832	\$ 4,905,111	0	\$ -	832	\$ 4,905,111
Totals	5,288	\$ 43,725,433	45	\$ 443,895	5,333	\$ 44,169,328



**All Benefit Recipients
Male and Female Demographic Breakdown
June 30, 2015**

Attained Age	Number of		Total Number
	Males	Females	
Under 20	29	27	56
20-24	8	11	19
25-29	3	5	8
30-34	6	13	19
35-39	17	12	29
40-44	39	72	111
45-49	141	197	338
50-54	559	644	1,203
55-59	1,362	1,976	3,338
60-64	2,537	6,236	8,773
65-69	3,738	10,325	14,063
70-74	3,512	9,823	13,335
75-79	3,117	9,061	12,178
80-84	2,367	7,253	9,620
85-89	1,564	5,342	6,906
90-94	643	2,768	3,411
95-99	130	723	853
100	4	37	41
101	2	26	28
102	3	13	16
103	1	12	13
104	1	5	6
105 & Over	0	8	8
Total	19,783	54,589	74,372



Survivor Benefit Fund
Survivors of Deceased Active Member Information as of June 30, 2015
Tabulated by Attained Ages

Attained Age	No.	Annual Benefits
Under 45	107	\$ 1,157,762
45-49	78	\$ 936,585
50-54	171	\$ 2,023,732
55-59	272	\$ 3,051,440
60-64	488	\$ 4,722,872
65-69	682	\$ 6,211,425
70-74	654	\$ 5,114,153
75-79	676	\$ 5,408,514
80-84	559	\$ 3,776,939
85-89	437	\$ 2,603,222
90 & Over	265	\$ 1,226,312
Totals	4,389	\$ 36,232,957



**Total Active Members as of June 30, 2015
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 - 29	30+	
Under 20	814							814
Avg Pay	\$5,875							\$4,782,232
20-24	5,766	65						5,831
Avg Pay	\$8,753	\$19,976						\$51,768,311
25-29	6,014	747	38					6,799
Avg Pay	\$13,610	\$27,283	\$33,039					\$103,484,755
30-34	5,421	1,433	437	65				7,356
Avg Pay	\$15,671	\$29,483	\$37,156	\$42,738				\$146,218,176
35-39	5,901	1,870	972	452	24			9,219
Avg Pay	\$14,947	\$26,526	\$36,226	\$40,861	\$48,988			\$192,661,071
40-44	6,851	3,036	1,834	1,030	294	51		13,096
Avg Pay	\$14,324	\$24,314	\$31,525	\$39,485	\$44,520	\$45,905		\$285,868,486
44-49	6,320	3,970	3,006	2,170	703	344	40	16,553
Avg Pay	\$14,688	\$22,446	\$28,507	\$34,004	\$44,738	\$49,056	\$51,455	\$391,801,198
50-54	5,162	3,877	4,345	4,242	1,733	1,013	379	20,751
Avg Pay	\$15,352	\$22,802	\$26,951	\$30,779	\$36,603	\$44,397	\$51,119	\$543,098,620
55-59	3,984	2,998	3,703	4,754	3,112	1,621	729	20,901
Avg Pay	\$15,540	\$23,372	\$27,454	\$29,431	\$32,126	\$38,273	\$46,729	\$569,637,552
60-64	2,417	1,801	1,923	2,564	2,161	1,937	831	13,634
Avg Pay	\$14,410	\$22,717	\$28,399	\$29,831	\$31,734	\$34,134	\$39,588	\$374,432,643
65-69	1,183	790	765	660	642	750	680	5,470
Avg Pay	\$10,174	\$20,064	\$26,263	\$29,502	\$33,446	\$32,417	\$32,854	\$135,575,615
70 & over	563	477	364	223	187	189	428	2,431
Avg Pay	\$8,690	\$13,793	\$19,140	\$24,143	\$26,464	\$26,855	\$28,665	\$46,115,143
Totals	50,396	21,064	17,387	16,160	8,856	5,905	3,087	122,855
Avg Pay	\$13,774	\$23,655	\$28,564	\$31,406	\$34,341	\$37,550	\$39,846	\$23,161

Averages:
Age: 48.5
Service: 9.7
Annual Pay: \$23,161



**Male Active Members as of June 30, 2015
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 - 29	30+	
Under 20	460							460
Avg Pay	\$6,203							\$2,853,493
20-24	2,717	38						2,755
Avg Pay	\$8,839	\$22,749						\$24,880,456
25-29	2,655	376	30					3,061
Avg Pay	\$13,538	\$30,832	\$34,463					\$48,570,273
30-34	2,128	640	239	37				3,044
Avg Pay	\$16,668	\$33,630	\$44,387	\$50,684				\$69,476,964
35-39	1,871	601	355	204	14			3,045
Avg Pay	\$16,481	\$33,436	\$47,454	\$49,089	\$56,295			\$78,579,914
40-44	2,095	749	436	336	133	29		3,778
Avg Pay	\$15,100	\$32,502	\$46,361	\$51,166	\$51,419	\$49,365		\$101,655,028
44-49	2,085	795	512	458	264	166	16	4,296
Avg Pay	\$15,617	\$30,569	\$43,065	\$50,746	\$57,238	\$53,848	\$55,095	\$127,085,221
50-54	1,823	933	686	611	344	371	194	4,962
Avg Pay	\$17,070	\$29,642	\$39,757	\$47,613	\$52,554	\$52,773	\$53,222	\$163,121,014
55-59	1,572	949	769	649	411	369	317	5,036
Avg Pay	\$17,360	\$28,352	\$39,178	\$43,663	\$48,086	\$50,484	\$53,697	\$168,074,725
60-64	1,178	787	638	473	361	290	242	3,969
Avg Pay	\$15,412	\$26,728	\$35,924	\$41,107	\$45,468	\$49,179	\$51,140	\$124,605,712
65-69	616	414	322	157	128	96	93	1,826
Avg Pay	\$11,667	\$22,876	\$31,445	\$38,983	\$42,236	\$44,610	\$44,912	\$46,768,664
70 & over	291	245	204	95	49	33	35	952
Avg Pay	\$10,281	\$17,451	\$22,040	\$29,749	\$31,061	\$35,470	\$38,580	\$18,632,436
Totals	19,491	6,527	4,191	3,020	1,704	1,354	897	37,184
Avg Pay	\$14,369	\$29,426	\$39,535	\$45,742	\$49,250	\$50,438	\$51,429	\$26,202

Averages:
Age: 46.4
Service: 7.7
Annual Pay: \$26,202



**Female Active Members as of June 30, 2015
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 - 29	30+	
Under 20	354							354
Avg Pay	\$5,448							\$1,928,739
20-24	3,049	27						3,076
Avg Pay	\$8,676	\$16,074						\$26,887,855
25-29	3,359	371	8					3,738
Avg Pay	\$13,666	\$23,686	\$27,700					\$54,914,481
30-34	3,293	793	198	28				4,312
Avg Pay	\$15,027	\$26,136	\$28,427	\$32,238				\$76,741,212
35-39	4,030	1,269	617	248	10			6,174
Avg Pay	\$14,234	\$23,254	\$29,766	\$34,092	\$38,759			\$114,081,157
40-44	4,756	2,287	1,398	694	161	22		9,318
Avg Pay	\$13,982	\$21,632	\$26,898	\$33,829	\$38,820	\$41,344		\$184,213,459
44-49	4,235	3,175	2,494	1,712	439	178	24	12,257
Avg Pay	\$14,230	\$20,412	\$25,518	\$29,525	\$37,221	\$44,587	\$49,029	\$264,715,977
50-54	3,339	2,944	3,659	3,631	1,389	642	185	15,789
Avg Pay	\$14,415	\$20,634	\$24,551	\$27,946	\$32,652	\$39,557	\$48,913	\$379,977,606
55-59	2,412	2,049	2,934	4,105	2,701	1,252	412	15,865
Avg Pay	\$14,354	\$21,065	\$24,381	\$27,181	\$29,698	\$34,673	\$41,367	\$401,562,827
60-64	1,239	1,014	1,285	2,091	1,800	1,647	589	9,665
Avg Pay	\$13,458	\$19,604	\$24,662	\$27,280	\$28,980	\$31,485	\$34,841	\$249,826,931
65-69	567	376	443	503	514	654	587	3,644
Avg Pay	\$8,553	\$16,967	\$22,497	\$26,543	\$31,258	\$30,627	\$30,944	\$88,806,950
70 & over	272	232	160	128	138	156	393	1,479
Avg Pay	\$6,987	\$9,929	\$15,442	\$19,982	\$24,832	\$25,033	\$27,782	\$27,482,707
Totals	30,905	14,537	13,196	13,140	7,152	4,551	2,190	85,671
Avg Pay	\$13,398	\$21,064	\$25,080	\$28,111	\$30,789	\$33,716	\$35,102	\$21,841

Averages:
Age: 49.4
Service: 10.6
Annual Pay: \$21,841



**Active Members as of June 30, 2015
Tabulated by Annual Pay**

Annual Pay	Number of Active Members			Portion of Total Number	
	Men	Women	Totals	Group	Cumulative
Less than \$1,000	197	225	422	0.3%	0.3%
\$1,000 - 1,999	1,160	1,130	2,290	1.9%	2.2%
2,000 - 2,999	2,169	1,874	4,043	3.3%	5.5%
3,000 - 3,999	2,306	2,201	4,507	3.7%	9.2%
4,000 - 4,999	1,778	2,278	4,056	3.3%	12.5%
5,000 - 5,999	1,350	2,172	3,522	2.9%	15.3%
6,000 - 6,999	1,075	2,224	3,299	2.7%	18.0%
7,000 - 7,999	880	2,146	3,026	2.5%	20.5%
8,000 - 8,999	705	2,250	2,955	2.4%	22.9%
9,000 - 9,999	646	2,335	2,981	2.4%	25.3%
10,000 - 11,999	1,219	4,584	5,803	4.7%	30.0%
12,000 - 13,999	1,226	4,759	5,985	4.9%	34.9%
14,000 - 15,999	1,183	5,240	6,423	5.2%	40.1%
16,000 - 17,999	1,245	6,031	7,276	5.9%	46.1%
18,000 - 19,999	1,147	5,965	7,112	5.8%	51.8%
20,000 - 24,999	2,459	12,795	15,254	12.4%	64.3%
25,000 - 29,999	2,066	7,942	10,008	8.1%	72.4%
30,000 - 35,999	2,984	6,812	9,796	8.0%	80.4%
36,000 and over	11,389	12,708	24,097	19.6%	100.0%
Totals	37,184	85,671	122,855		



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 Retiree 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)

Year Ending June 30	Gain (Loss) by Risk Area									\$	% of AAL
	Economic		Non-Economic								
	Pay Increases	Investment	Age & Service Retirement	Disability	Death In Service	Withdrawal	New Members	Retiree Mortality	Other +		
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)	(1.1)	517.6	4.1
2008	95.8	(6.6)	(96.1)	(3.5)	(0.6)	8.1	(51.3)	72.4	81.2	99.4	6.1
2009	107.5	(2,265.2)	(50.8)	(28.7)	(0.6)	(11.9)	(50.4)	51.8	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
2015	53.3	62.1	(123.0)	(53.1)	0.0	65.1	(47.7)	55.8	(0.2)	12.3	0.1

* 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, 2015 was \$12,601,679,774. The value for the previous year was \$12,030,478,476.

School Employees Retirement System of Ohio
Development of Gain (Loss) for basic benefits
From Investment Return
For the Year Ended June 30, 2015
(\$ Millions)

	<u>\$ Millions</u>
1. Actuarial value of assets as of June 30, 2014	\$ 12,030.5
2. Actuarial value of assets as of June 30, 2015	
a. Actual	12,601.7
b. If 7.75% assumed investment return was achieved for all phased-in years recognized in the asset method	12,539.6
3. Gain (Loss): 2a minus 2b	<u>\$ 62.1</u>



**Pay Increases During the FY2015 Valuation Year
To Members Active at Beginning and End of Year**

Central Age Group Beginning of Year	Number	Pay Increases	
		Actual	Expected
Under 25	2,237	3.87%	18.11%
25	3,990	9.81	13.62
30	4,884	8.84	10.26
35	6,564	7.87	8.59
40	9,787	6.96	7.44
45	14,002	6.06	6.32
50	18,434	4.91	5.42
55	19,694	3.88	5.05
60	13,690	3.17	4.87
65 & Over	8,262	2.85	4.92
Total	101,544	5.03	6.19



**Members Who Became Age & Service Retirees During the FY2015 Valuation Year
(Retirement With Allowance Beginning Immediately)**

Attained Age	Years of Service to Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	
Under 50							32	32
50							13	13
51							22	22
52							31	31
53							34	34
54							32	32
55						56	29	85
56						27	45	72
57						25	42	67
58						38	55	93
59						34	50	84
60		29	54	72	78	52	50	335
61		25	28	37	37	41	42	210
62		32	44	45	50	51	42	264
63		21	29	38	31	49	50	218
64		14	36	29	31	60	69	239
65		36	49	63	97	120	70	435
66		17	34	36	28	45	40	200
67		15	29	17	33	36	29	159
68		13	24	13	16	17	31	114
69		10	13	15	9	14	22	83
70 & Over		62	88	42	39	65	126	422
Totals	0	274	428	407	449	730	956	3,244

	Years of Service to Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	
Avg. Monthly Benefit	\$ 0	\$ 241	\$ 527	\$ 825	\$ 1,140	\$ 1,467	\$ 2,414	\$ 1,393
Avg. FAS	\$ 0	\$ 20,462	\$ 26,713	\$ 29,924	\$ 32,034	\$ 34,257	\$ 42,811	\$ 33,766
Number of Retirees	0	274	428	407	449	730	956	3,244

Average Age: 63.6
Average Service: 23.2



**Members Who Died in the FY2015 Valuation Year
With a Death-in-Service Allowance Payable**

Central Age Group Beginning of Year	Number
Under 25	
25	
30	
35	1
40	2
45	6
50	9
55	20
60	21
65	15
70 & Over	13
Total	87

Average Age: 58.9
Average Service: 17.2



**Members Who Died in the FY2015 Valuation Year
and Received a Refund of Contributions**

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

Average Age: 58.3
Average Service: 2.8



**Members Who Became Disability Retirees
During the FY2015 Valuation Year**

Central Age Group Beginning of Year	Number
Under 25	
25	
30	
35	4
40	14
45	31
50	56
55	99
60	88
65	16
70 & Over	1
Total	309

Average Age: 54.1
Average Service: 16.0
Average FAS: \$32,266



**Members Receiving a Refund of Contributions
or Becoming Inactive Without a Refund in
the FY2015 Valuation Year
(Non-vested Terminations)**

Central Age Group Beginning of Year	Number
Under 25	1,281
25	2,418
30	1,450
35	1,260
40	1,298
45	1,500
50	1,236
55	1,079
60	558
65	278
70 & Over	182
Total	12,540

Average Age: 38.2
Average Service: 2.7



**Members Who Became Inactive
in the FY2015 Valuation Year
with a Deferred Allowance
(Vested Terminations)**

Central Age Group Beginning of Year	Number
Under 25	0
25	0
30	4
35	27
40	43
45	65
50	100
55	116
60	98
65	21
70 & Over	17
Total	491

Average Age: 52.1
Average Service: 13.4



SCHEDULE G

GLOSSARY

Actuarial Accrued Liability. 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".

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

Actuarial Assumptions. 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.

Actuarial Cost Method. 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".

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

Actuarial Present Value. 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.

Amortization. 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.

Experience Gain (Loss). 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.

Normal Cost. 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.

Plan Termination Liability. 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.

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

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

Valuation Assets. 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, 2015

Present Value of:	Pension Benefits	Medicare Part B	Post-Retirement Death Benefit	Total Basic Benefits
Future benefits to present retirees and survivors	\$ 10,495,182,385	\$ 239,063,493	\$ 26,534,305	\$ 10,760,780,183
Benefits and refunds to present inactive members	551,298,891	12,520,785	1,205,485	565,025,161
Allowances to present active members				
Service	6,725,072,639	113,280,094	6,941,399	6,845,294,132
Disability	267,375,739	4,518,642	389,102	272,283,483
Survivor benefits	94,624,361	1,682,384	0	96,306,745
Withdrawal	<u>(46,817,122)</u>	<u>10,284,099</u>	<u>124,280</u>	<u>(36,408,743)</u>
Total Active AAL	7,040,255,617	129,765,219	7,454,781	7,177,475,617
Total AAL	<u>\$ 18,086,736,893</u>	<u>\$ 381,349,497</u>	<u>\$ 35,194,571</u>	<u>\$ 18,503,280,961</u>



APPENDIX B

**BREAKDOWN OF TOTAL AND ACCRUED LIABILITIES
AS OF JUNE 30, 2015**

	Total Liability	Accrued Liability
Active Members		
Retirement	\$8,246,083,247	\$6,725,072,639
Death	131,537,822	94,624,361
Disability	454,998,630	267,375,739
Termination	846,748,705	(46,817,122)
Medicare Part B	170,895,073	129,765,219
Death after Retirement	<u>11,362,834</u>	<u>7,454,781</u>
Total	\$9,861,626,311	\$7,177,475,617
Retirees		
Retirement/Survivor/Disability	\$10,495,182,385	\$10,495,182,385
Medicare Part B	239,063,493	239,063,493
Death after Retirement	<u>26,534,305</u>	<u>26,534,305</u>
Total	\$10,760,780,183	\$10,760,780,183
Deferred Vested Members	286,229,049	286,229,049
Inactive Members	<u>278,796,112</u>	<u>278,796,112</u>
Total Actuarial Values	\$21,187,431,655	\$18,503,280,961
Actuarial Value of Assets		<u>12,601,679,774</u>
Unfunded Actuarial Accrued Liability		\$5,901,601,187



APPENDIX C
COMPARATIVE SCHEDULE
AS OF JUNE 30, 2015

Valuation Date June 30	Active Members				Retired Lives				Accrued Liability	Valuation Assets \$ Millions	UAAL
	Number	Payroll \$ Millions	Average Salary		Number		Annual Benefits				
			\$	% Increase	Retired	Active / Retired	\$ Millions	% of Payroll			
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
2015	122,855	2,845	23,161	1.8	74,372	1.7	1,020.4	35.9	18,503	12,602	5,902

* after the adjustment to reflect health care asset restatement



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve



**Report on the Retiree Health Care
Valuation of the
School Employees Retirement System of Ohio**

Prepared as of June 30, 2015



Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

November 9, 2015

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

Dear Members of the Board:

Governmental Accounting Standards Board Statements No. 43 and 45 require actuarial valuations of retiree medical and other post-employment benefit plans. We have submitted the results of the annual actuarial valuation of the Retiree Health Care Valuation of the School Employees Retirement System of Ohio (SERS) prepared as of June 30, 2015. While not verifying the data at source, the actuary performed tests for consistency and reasonability. The valuation indicates that the Annual Required Contribution (ARC) required by GASB Statement 45 is 5.51% of active payroll payable for the fiscal year ending June 30, 2016. Any net claims or premiums paid for retiree health care are considered contributions toward the ARC. Your attention is directed particularly to the summary of results on page 1 and the comments on page 6.

The medical and drug benefits of the Plan are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method with the normal cost rate determined as a level percentage of payroll. GASB requires the discount rate used to value a plan be based on the likely return of the assets held in trust to pay benefits. The discount rate used in this valuation is 5.25%. Gains and losses are reflected in the unfunded accrued liability that is amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 4.00% annually. The assumptions recommended by the actuary are, in the aggregate, reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan and meet the parameters for the disclosures under GASB 43 and 45.

The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results. While the impact of certain provisions such as the excise tax on high-value health insurance plans beginning in 2018 (if applicable), mandated benefits and participation changes due to the individual mandate should be recognized in the determination of liabilities, overall future plan costs and the resulting liabilities are driven by amounts employers and retirees can afford (i.e., trend). The trend assumption forecasts the anticipated increase to initial per capita costs, taking into account health care cost inflation, increases in benefit utilization, plan changes, government-mandated benefits, and technological advances. Given the uncertainty regarding the ACA's implementation (e.g., the impact of excise tax on high-value health insurance plans, changes in participation resulting from the implementation of state-based health insurance exchanges), continued monitoring of the ACA's impact on the Plan's liability will be required.



November 9, 2015
Board of Trustees
Page 2

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.

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,

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

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

A handwritten signature in blue ink, appearing to read 'John J. Garrett'.

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

AB/JJG:lb



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

PREPARED AS OF JUNE 30, 2015

SECTION I – SUMMARY OF PRINCIPAL RESULTS

This report, prepared as of June 30, 2015, presents the results of the annual actuarial valuation of retiree health care offered to SERS members. For convenience of reference, the principal results of the valuation and a comparison with the preceding valuation results are summarized in the following table.

	June 30, 2015	June 30, 2014
Active members included in valuation		
Number	122,855	121,251
Annual Compensation	\$2,845,443,802	\$2,759,281,606
Service Retirees		
Number	31,470	31,559
Disability Retirees		
Number	3,443	3,560
Spouses of Retirees		
Number	5,812	6,066
Spouses of Deceased Retirees		
Number	1,991	2,059
Survivor Benefit Recipients		
Number	913	976
Children		
Number	478	490
Deferred Vesteds		
Number	4,651	4,481
Assets		
Market Value	\$408,363,598	\$413,858,201
Unfunded Accrued Liability	\$2,016,150,191	\$2,061,751,051
Actuarial Accrued Liability	\$2,424,513,789	\$2,475,609,252
Funded Ratio (MVA/AAL)	16.84%	16.72%
Employer Contribution Rate		
Normal	2.72%	2.82%
Accrued Liability	<u>2.79%</u>	<u>2.95%</u>
Total	5.51%	5.77%
Employer Contribution Toward Health Care*	1.50%	2.32%
Accrued liability amortization period	30	30

* Includes 1.50% of payroll surcharge



2. The employer health contribution rate is set at 1.50%. This rate includes the anticipated revenue from the minimum surcharge level for FY2016 of \$23,000.
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 actuarial gains during the valuation year are given in Section V, and the rates of contribution payable by the employer are given in Section VI.
5. There were no changes in interest rate, or age related morbidity assumptions since the last valuation. The following changes were reflected in this valuation:
 - 2016 Medicare Plan Changes include:
 - Emergency room co-pays increased under all Medicare plans.
 - Rehabilitation co-pays decreased for some services in the Aetna MedicareSM Plan (PPO) and Paramount Elite Medicare Advantage plans.
 - Non-preferred brands are no longer covered by SERS in the Express Scripts Prescription Plan.
 - 2016 Non-Medicare Plan Changes include:
 - Medical Mutual of Ohio is not available beginning in 2016. Aetna Choice POS II is replacing Medical Mutual of Ohio as the primary plan for individuals not yet Medicare age.
 - The deductibles and out-of-pocket maximums increased for all non-Medicare plans.
 - Chiropractic cost sharing switched to coinsurance for all non-Medicare plans except for HealthSpan.
 - Members in the Aetna Choice POS II will pay lower costs for joint replacement, spine surgeries and transplants performed in Aetna Institutes of Quality or Excellence.
 - Non-preferred brands are no longer covered and no longer count toward the prescription out-of-pocket maximum in the Express Scripts Prescription Plan.
 - Preferred-brand diabetic test strips and meters are available without a co-pay in all non-Medicare plans.
 - In accordance with the Board-adopted funding policy that became effective June 18, 2015, the employer health contribution rate does not include an additional portion from the basic benefits. The basic benefits funded ratio is less than 70%, thus all 14% of the employers' contribution is allocated to SERS' basic benefits.
6. Schedule B details the actuarial assumptions and methods employed. Schedule C gives a summary of the benefit and contribution provisions of the plan.



7. The statute sets a contribution cap of 24% of payroll; 14% from employers and 10% from employees. The funding policy states that employer contributions in excess of those required to support the basic benefits may be allocated to retiree health care funding. If the funded ratio is less than 70%, the entire 14% employers' contribution shall be allocated to SERS' basic benefits. If the funded ratio is 70% but less than 80%, at least 13.50% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund SERS' basic benefits.



SECTION II – MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following tables summarize the membership of the system as of June 30, 2015 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

Active Members

Number	Payroll	Group Averages		
		Salary	Age	Service
122,855	\$2,845,443,802	\$23,161	48.5	9.7

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
6/30/2010	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
6/30/2015	122,855	2,845,443,802	23,161	1.8



The following table shows the number of retiree members and their beneficiaries receiving health care as of the valuation date as well as average ages.

Retiree Lives

Type of Benefit Recipient	Number	Average Age
Service Retirees	31,470	76.0
Disability Retirees	3,443	67.3
Spouses	8,716	78.1
Children	478	27.0
Total	44,107	75.2

This valuation also includes 4,651 inactive members eligible for health care.



SECTION III – ASSETS

1. As of June 30, 2015 the total market value of assets amounted to \$408,363,598.

Asset Summary Based on Market Value			
(1)	Assets at June 30, 2014	\$	413,858,201
(2)	Contributions and Misc. Revenue		185,406,033
(3)	Investment Gain (Loss)		8,850,272
(4)	Benefit Payments		<u>(199,750,908)</u>
(5)	Assets at June 30, 2015	\$	408,363,598
	(1) + (2) + (3) + (4)		
(6)	Annualized Rate of Return*		2.2 %

*Based on the approximation formula: $I/[0.5 \times (A + B - I)]$, 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, 2015.

1. The total health care valuation balance sheet shows that the System has total future health care liabilities of \$3,277,432,741, of which \$967,925,442 is for the future benefits payable for present retiree members and beneficiaries of deceased members; \$11,009,096 is for the future benefits payable for current deferred vested members; and \$2,298,498,203 is for the future benefits payable for present active members. Against these health care liabilities the System has a total market value of assets of \$408,363,598 as of June 30, 2015. The difference of \$2,869,069,143 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future for health care. Of this amount, no future contributions are expected to be made by members, and the balance of \$2,869,069,143 represents the present value of future contributions payable by SERS.
2. SERS' contributions on account of health care consists of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 2.72% of payroll are required to provide the benefits of the System for the average new member of SERS.
3. Prospective employer normal contributions on account of health care at the above rates have a present value of \$852,918,952. When this amount is subtracted from \$2,869,069,143, which is the present value of the total future contributions to be made by the employer, there remains \$2,016,150,191 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by SERS on account of health care be set at 2.79% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of \$2,016,150,191 over 30 years on the assumption that the aggregate payroll for members will increase by 4.00% each year.



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, 2015 is shown below.

**Experience Gain/(Loss)
(\$ Thousands)**

(1)	UAAL* as of 6/30/14	\$	2,061,751
(2)	Normal cost from last valuation		77,821
(3)	Expected employer contributions		164,182
(4)	Interest accrual: [(1) + (2) - (3)] x .0525		<u>103,708</u>
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$	2,079,098
(6)	Change due to plan amendments		0
(7)	Change due to new actuarial assumptions		0
(8)	Change due to claims and retiree premiums		112,654
(9)	Expected UAAL after changes: (5) - (6) - (7) - (8)	\$	1,966,444
(10)	Actual UAAL as of 6/30/15	\$	2,016,150
(11)	Total gain/(loss): (9) - (10)	\$	(49,706)
	(a) Contribution shortfall		(77,166)
	(b) Investment loss		(12,501)
	(c) Experience gain/(loss) (11) - (11a) - (11b)	\$	39,961
(12)	Accrued liabilities as of 6/30/14	\$	2,475,609
(13)	Experience gain/(loss) as percent of actuarial accrued liabilities at start of year (11c) / (12)		1.6%

* unfunded actuarial accrued liability



ANALYSIS OF FINANCIAL EXPERIENCE

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

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/15
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ 2.8
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	2.6
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.7)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	30.1
Claims Increases. If there are smaller claims increases than assumed creates a gain; larger, a loss.	112.7
New Members. Additional accrued liability attributable to members who entered the plan since the last valuation.	(18.2)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(12.5)
Contribution Shortfall. If there are more contributions than the ARC, there is a gain. If less contributions, a loss.	(77.2)
Death After Retirement. If retiree members live longer than assumed, there is a loss. If not as long, a gain.	14.3
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	9.0
Gain (or Loss) During Year From Financial Experience	\$ 62.9
Non-Recurring Items. Adjustments for plan amendments, assumption changes and method changes	0.0
Composite Gain (or Loss) During Year	\$ 62.9



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 FY2016.

Required Contribution Rates

Contribution for	Amount	% of Payroll
A. Normal Cost	\$ 77,466,073	2.72%
B. Member Contributions*	\$ 0	0.00%
C. Employer Normal Cost: [A - B]	\$ 77,466,073	2.72%
D. Unfunded Actuarial Accrued Liability**	\$ 79,491,199	2.79%
E. Total Recommended Employer Contribution Rate: [C+D]	\$ 156,957,272	5.51%
F. Employer Contribution Toward Health Care ⁺	\$ 42,681,657	1.50%

* The liabilities are net of retiree contributions towards their health care.

** Based on 30-year amortization of the UAAL from June 30, 2015.

+ Includes 1.50% of payroll surcharge.

Ten-Year History of Employer Contribution Rates

Fiscal Year Ending June 30	Employer Health Care Contribution Rate	Surcharge Percentage	Total Health Care Contribution Rate
2006	3.42%	1.50%	4.92%
2007	3.32	1.50	4.82
2008	4.18	1.50	5.68
2009	4.16	1.50	5.66
2010	0.46	1.50	1.96
2011	1.43	1.50	2.93
2012	0.55	1.50	2.05
2013	0.16	1.50	1.66
2014	0.14	1.50	1.64
2015	0.82	1.50	2.32



SECTION VII - ACCOUNTING INFORMATION

Governmental Accounting Standards Board Statements 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2015. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2015
Actuarial cost method	Entry Age
Amortization	Level Percent Open
Remaining amortization period	30 years
Asset valuation method	Market Value
Actuarial assumptions	
Investment rate of return*	5.25%
* Includes price inflation at	3.25%
Wage increases	4.00%
Medical Trend Assumption	
Pre-Medicare	7.50% - 5.00%
Medicare	5.50% - 5.00%
Year of Ultimate Trend	2017 - 2020

Another required item of disclosure is the Schedule of Funding Progress shown in the following table.



SCHEDULE OF FUNDING PROGRESS
(\$ 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))
6/30/2010	\$325	\$2,369	\$2,044	13.7%	\$2,843	71.9%
6/30/2011	356	2,410	2,054	14.8	2,852	72.0
6/30/2012	355	2,691	2,336	13.2	2,788	83.8
6/30/2013	379	2,918	2,539	13.0	2,747	92.4
6/30/2014	414	2,476	2,062	16.7	2,759	74.7
6/30/2015	408	2,425	2,017	16.8	2,845	70.9

Schedule of Employer Contributions

Year Ended	Annual Required Contribution (ARC) (a)	Employer Contribution (b)	Retiree Drug Subsidy (RDS) and Other Contributions (c)	Total Contribution (d) = (b)+(c)	Percentage of ARC Contributed (e) = (d)/(a)
June 30, 2010	\$315,535,278	\$60,142,014	\$24,414,855	\$84,556,869	26.8%
June 30, 2011	169,146,052	86,908,283	0	86,908,283	51.4
June 30, 2012	155,857,785	56,476,230	0	56,476,230	36.2
June 30, 2013	171,402,038	45,489,443	0	45,489,443	26.5
June 30, 2014	190,390,431	46,097,206	29,200,200	75,297,406	39.5
June 30, 2015	164,182,107	68,904,867	20,084,826	88,989,693	54.2



SCHEDULE A

Valuation Balance Sheet

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of June 30, 2015 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2014.

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

	June 30, 2015	June 30, 2014
ASSETS		
Current market value of assets	\$ 408,363,598	\$ 413,858,201
Prospective contributions		
Employer normal contributions	852,918,952	864,793,714
Unfunded accrued liability contributions	<u>2,016,150,191</u>	<u>2,061,751,051</u>
Total prospective contributions	<u>\$ 2,869,069,143</u>	<u>\$ 2,926,544,765</u>
Total assets	<u>\$ 3,277,432,741</u>	<u>\$ 3,340,402,966</u>
LIABILITIES		
Present value of benefits payable on account of present retiree members and beneficiaries	\$ 967,925,442	\$ 952,544,998
Present value of benefits payable on account of active members	2,298,498,203	2,372,199,191
Present value of benefits payable on account of deferred vested members	<u>11,009,096</u>	<u>15,658,777</u>
Total liabilities	<u>\$ 3,277,432,741</u>	<u>\$ 3,340,402,966</u>



The following table provides the solvency test for SERS members.

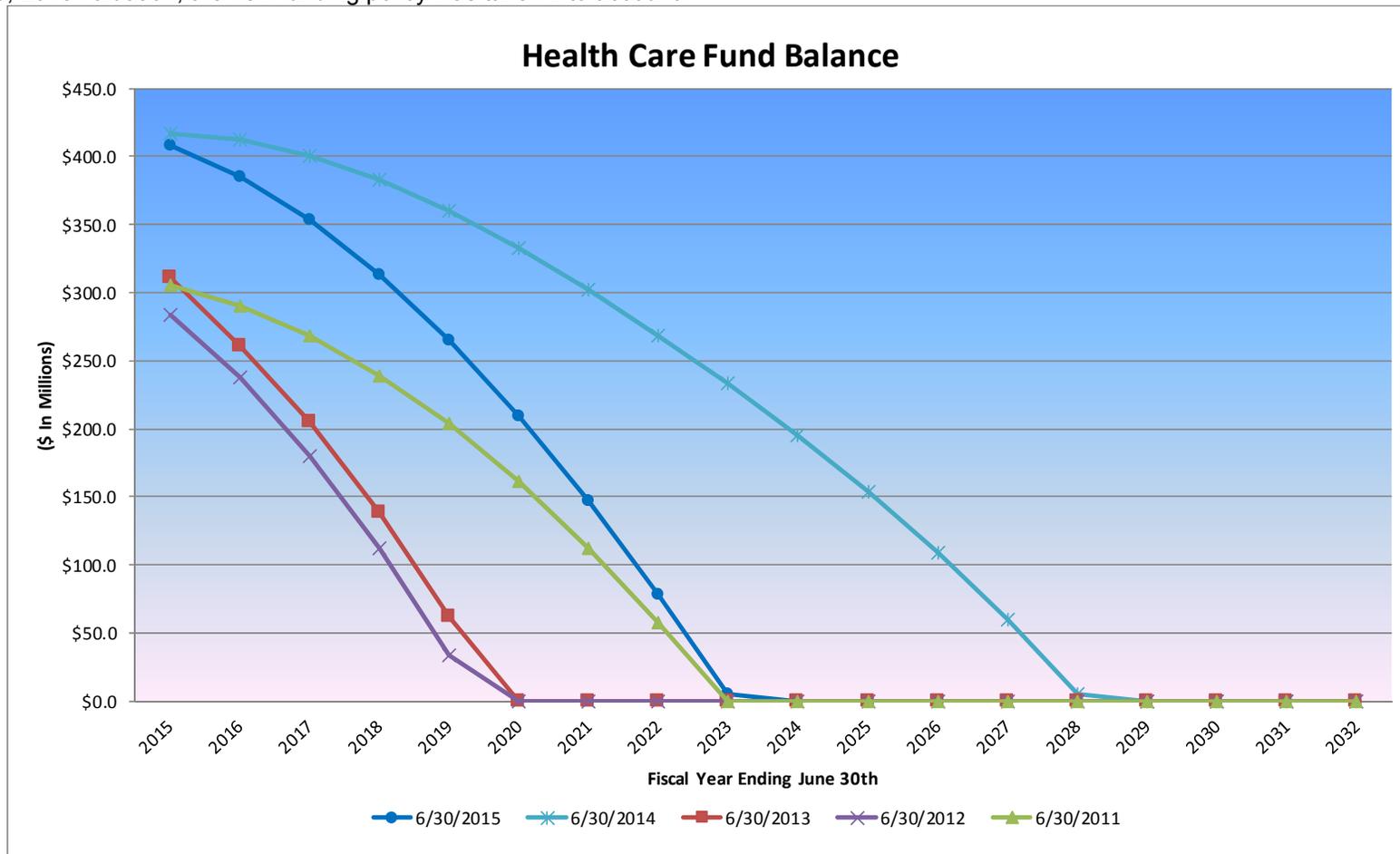
**Solvency Test
(\$ Millions)**

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1) Active Member Contributions	(2) Retiree Members & Beneficiaries	(3) Active Members (Employer Financed Portion)			(1)	(2)	(3)
6/30/2010	\$0	\$970	\$1,399	\$325	100.0%	33.5%	0.0%	
6/30/2011	0	897	1,513	356	100.0	39.7	0.0	
6/30/2012	0	1,074	1,617	355	100.0	33.1	0.0	
6/30/2013	0	1,157	1,761	379	100.0	32.8	0.0	
6/30/2014	0	968	1,508	414	100.0	42.8	0.0	
6/30/2015	0	979	1,446	408	100.0	41.7	0.0	



Solvency Chart

The following chart shows the projected Health Care Fund Balances from the five most recent valuations. The prior year projections were based on the funding policy and assumptions in effect on the prior year valuation dates. The projections are based on a 7.75% future asset rate of return assumption and assumed health care contribution rates based on the pension valuation and the surcharge calculation. Starting with the June 30, 2015 valuation, the new funding policy was taken into account.





SCHEDULE B

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The decremental assumptions used in the valuation were adopted by the Board in April, 2011.

INTEREST RATE: 5.25% per annum, compounded annually (net after all System expenses).

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

Calendar Year	Non-Medicare	Medicare
2015	7.50%	5.50%
2016	6.75	5.25
2017	6.25	5.00
2018	5.75	5.00
2019	5.25	5.00
2020 and beyond	5.00	5.00

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	
	Medical	Prescription Drug
Under 41	0.00%	0.00%
41 – 45	2.50	1.25
46 – 50	2.60	1.30
51 – 55	3.20	1.60
56 – 60	3.40	1.70
61 – 65	3.70	1.85
66 – 70	3.20	1.60
71 – 75	2.40	1.20
76 – 80	1.80	0.90
81 – 85	1.30	0.65
85 and over	0.00	0.00

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

Retiree Gender	Spouse Coverage	Dependent Child Coverage
Male	50.0%	0.0%
Female	40.0%	0.0%

Wives are assumed to be three years younger than husbands.



ANTICIPATED PLAN PARTICIPATION (continued):

Years of Service	Service Retiree Participation	Disabled Retiree Participation	Deferred Vested Retiree Participation	Death in Service Surviving Spouse Participation
1.5 – 5	N/A	N/A	N/A	100.0%
5 – 9	N/A	100.0%	N/A	100.0
10 – 14	25.0%	100.0	50.0%	100.0
15 – 19	45.0	100.0	50.0	100.0
20 – 24	70.0	100.0	50.0	100.0
25 – 29	75.0	100.0	50.0	100.0
30 – 34	80.0	100.0	50.0	100.0
35 and over	90.0	100.0	50.0	100.0

ANTICIPATED PLAN ELECTIONS: The assumed annual rates of member plan elections are as follows:

Plan Type	Future Retirees	
	Non-Medicare	Medicare
PPO	94.4%	94.0%
HMO	5.6%	6.0%

Anticipated plan elections within the above plan types are further expanded below:

Plan Type	Future Retirees*	
	Non-Medicare	Medicare
<u>PPO</u>		
Aetna Choice POS II	95.8%	0.0%
Aetna Medicare SM Plan	0.0%	100.0%
AultCare PPO	4.2%	0.0%
<u>HMO</u>		
PrimeTime	0.0%	69.5%
HealthSpan	87.9%	0.0%
Paramount HMO	12.1%	30.5%

* Future disabled retirees are assumed to have 85% Non-Medicare coverage and 15% Medicare coverage before age 65.

ANTICIPATED MEDICARE COVERAGE AT AGE 65: The assumed annual rates of future retirees obtaining Medicare coverage at age 65 are as follows:

Medicare Coverage	Percent Covered
No Medicare at age 65	1.0%
Medicare Part A	98.0%
Medicare Part B Only	1.0%

Current service retirees, disabled benefit recipients, spouses and dependent children under age 65 were assumed to have similar Medicare coverage at age 65 as their post-Medicare counterparts.



HEALTH CARE PREMIUM DISCOUNT PROGRAM PARTICIPATION: Current service retirees, disabled benefit recipients, spouses and dependent children reported as qualifying for the health care Premium Discount Program were assumed to continue participating in the program for their lifetime.

MONTHLY EXPECTED MEDICAL/PRESCRIPTION DRUG CLAIMS COSTS (INCLUDES ADMINISTRATIVE EXPENSES): Following are charts detailing expected claims for the year following the valuation date:

Retiree Costs					
Medicare Status	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Non-Medicare	\$1,182	n/a	\$930	\$1,014	\$1,421
Medicare A	\$195	\$694	\$219	\$326	\$247
Medicare B Only	\$560	n/a	\$930	\$1,263	\$559

Spouse Costs					
Medicare Status	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Non-Medicare	\$1,064	n/a	\$743	\$814	\$1,145
Medicare A	\$195	\$694	\$219	\$326	\$247
Medicare B Only	\$560	n/a	\$743	\$1,263	\$559

Children Costs					
Medicare Status	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Non-Medicare	\$296	n/a	\$164	\$181	\$254
Medicare A	\$195	\$694	\$219	\$326	\$247

The above amounts are shown as average costs and represent premiums paid to insurers.



ANNUAL EXPECTED MEDICAL/PRESCRIPTION DRUG COSTS (INCLUDES ADMINISTRATIVE EXPENSES) (continued): In the valuation, the premium costs are converted to age 65 amounts, age adjusted and blended based on actual elections for current retirees, current disabled retirees, current retiree spouses and current dependent children, and based on projected elections for future retirees and future spouses. The age adjusted and blended amounts are as follows:

Annual Pre-65 Blended Costs Age Adjusted to 65							
Pre-65 Cost Type	Future Service Retirees	Future Disabled Retirees	Future Spouses	Current Service Retires	Current Disabled Retirees	Current Retiree Spouses	Current Dependent Children
Medical	\$13,032	\$11,182	\$11,580	\$12,912	\$10,392	\$7,464	\$4,908
Prescription Drug	2,496	2,329	2,232	2,496	2,244	1,932	924

Annual 65 & Older Blended Costs Age Adjusted to 65						
65 & Older Cost Type	Future Service Retirees	Future Disabled Retirees	Future Spouses	Current Service Retires	Current Disabled Retirees	Current Retiree Spouses
Medical	\$696	\$696	\$672	\$720	\$840	\$624
Prescription Drug	1,380	1,380	1,368	1,380	1,404	1,356



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

Age	Annual Rates of			
	Death		Disability	
	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 retiring after August 1, 2017 under the new eligibility requirements, the rates of retirement in the first year of eligibility are assumed to increase to 28% at age 67 and the assumed rates of early retirement are 8.5% for males aged 60 to 66, and 9.5% for females aged 60 to 66. 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:

Service	Annual Rates of		
	Merit & Seniority	Base (Economy)	Increase Next Year
0	17.31%	4.00%	22.00%
1	7.69	4.00	12.00
2	5.29	4.00	9.50
3	3.85	4.00	8.00
4	2.88	4.00	7.00
5	1.92	4.00	6.00
6	1.20	4.00	5.25
7	0.96	4.00	5.00
8	0.48	4.00	4.50
9	0.24	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.

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

ASSET VALUATION METHOD: Market value.



SCHEDULE C

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO Summary of Main Plan Provisions as of June 30, 2015

ELIGIBILITY FOR ACCESS TO RETIREE HEALTH CARE:

Normal 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 ten years of creditable service, or completion of 30 years of creditable service, regardless of age.

Members attaining 25 years of service after August 1, 2017: Attainment of age 67 with at least ten years of creditable service, or attainment of age 57 with at least 30 years of creditable service. Buy-up option available.

Early Retirement:

Retire before August 1, 2017 or have 25 years of service or more on or 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 ten years of service.

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.

Disability Retirement: Permanently disabled after completion of at least 5 years of total service credit.

Survivor Allowances: Beneficiary must be receiving monthly benefits due to the death of a member, age and service retiree or disability benefit recipient.

Termination: Members that terminated with at least ten years of creditable service and have attained age 60 (age 62 for those becoming members after May 13, 2008 and for members retiring after August 1, 2017).

PREMIUM PAYMENTS:

Retirees, spouses and dependent children pay either all or a portion of the cost of health care and prescription drug coverage as well as a \$35 monthly surcharge. The remainder of the cost is paid by SERS.

Retirees, spouses and dependent children may qualify for the health care Premium Discount Program if their household income falls at or below a specified level. Income limits are updated annually and those wishing to participate in the program must apply every year. Retirees, spouses and dependent children qualifying for the program will receive a 25% discount in their monthly health care premiums.



PREMIUM PAYMENTS (Continued):

The following schedule lists the percentage of the retiree premium paid by service retirees:

Years of Service	Retirement Date on or before July 1, 1989	Retirement Date August 1, 1989 through July 1, 2008	Retirement Date on or after August 1, 2008
	Service Retiree Premium Contribution Percentage		
5 – 9	50.0%	N/A	N/A
10 – 14	17.5	100.0%	100.0%
15 – 19	17.5	50.0	100.0
20 – 24	17.5	25.0	50.0
25 – 29	17.5	17.5	30.0
30 – 34	17.5	17.5	20.0
35 and over	17.5	17.5	15.0*

* Additional 1% reduction for each year over 35.

The following schedule lists the percentage of the retiree premium paid by disability benefit recipients:

Years of Service	Disabled Benefit Recipient Premium Contribution Percentage
5 – 9	50.0%
10 – 24	33.0
25 and over	17.5

The following schedule lists the percentage of the spouse premium paid by spouses of retirees:

Service Retiree, Disability Recipient, or Member's Qualified Service	Spouse Premium Contribution Percentage
1.5 – 24	100.0%
25 – 29	90.0
30 and over	80.0

Dependent children pay 70.0% of the child premium.

OTHER POST-EMPLOYMENT BENEFITS: Health care and prescription drug coverage is provided in all post-employment group health care plan options. Dental and vision coverage are made available to retirees, spouses and dependent children at the full cost.



2016 RETIREE GROUP HEALTH CARE PLAN OPTIONS:

Options available to members without Medicare

- ◇ Aetna Choice POS II with Express Scripts prescription drug coverage
- ◇ AultCare PPO with AultCare prescription drug coverage
- ◇ HealthSpan with HealthSpan prescription drug coverage
- ◇ Paramount HMO with Express Scripts prescription drug coverage

Options available to members with Medicare:

- ◇ Aetna MedicareSM Plan (PPO) with Express Scripts Medicare Part D Prescription Drug Plan
- ◇ Aetna Indemnity Plan with Express Scripts Medicare Part D Prescription Drug Plan (only available to members with special circumstances)
- ◇ AultCare PPO with AultCare prescription drug coverage (only available to members with Part B Only)
- ◇ HealthSpan HMO with HealthSpan Medicare Part D prescription drug coverage (not available to new members in 2016)
- ◇ Paramount Elite Medicare Advantage with Express Scripts Medicare Part D Prescription Drug Plan
- ◇ PrimeTime Health Plan through AultCare with PrimeTime Medicare Part D prescription drug coverage

The following pages contain information that was provided by SERS in the 2016 Open Enrollment Guide and the 2016 Member Health Care Guide.



2016 Contribution Rates

Years of Service	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Service Retirement Date on or before July 1, 1989 Premiums					
5-9.999 years					
Without Medicare	\$638		\$500	\$542	\$746
With Medicare A & B	\$144	\$382	\$145	\$198	\$158
With Medicare B Only	\$315		\$500	\$667	\$314
10-24.999 years & over					
Without Medicare	\$246		\$198	\$212	\$284
With Medicare A & B	\$73	\$156	\$73	\$92	\$78
With Medicare B Only	\$133		\$198	\$256	\$133
25 years & over					
Without Medicare	\$246		\$198	\$212	\$284
With Medicare A & B	\$73	\$156	\$73	\$92	\$78
With Medicare B Only	\$73		\$73	\$92	\$78

Years of Service	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Service Retirement Date August 1, 1989 through July 1, 2008 Premiums					
10-14.999 years					
Without Medicare	\$1,241		\$965	\$1,049	\$1,456
With Medicare A & B	\$253	\$729	\$254	\$361	\$282
With Medicare B Only	\$594		\$965	\$1,298	\$594
15-19.999 years					
Without Medicare	\$638		\$500	\$542	\$746
With Medicare A & B	\$144	\$382	\$145	\$198	\$158
With Medicare B Only	\$315		\$500	\$667	\$314
20-24.999 years					
Without Medicare	\$337		\$267	\$288	\$390
With Medicare A & B	\$89	\$209	\$90	\$117	\$97
With Medicare B Only	\$175		\$267	\$351	\$175
25 years & over					
Without Medicare	\$246		\$198	\$212	\$284
With Medicare A & B	\$73	\$156	\$73	\$92	\$78
With Medicare B Only	\$73		\$73	\$92	\$78



**2016 Contribution Rates
(continued)**

Years of Service	Aetna Choice POS II and Aetna MedicareSM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Service Retirement Date on or after August 1, 2008 Premiums*					
10-19.999 years					
Without Medicare	\$1,241		\$965	\$1,049	\$1,456
With Medicare A & B	\$253	\$729	\$254	\$361	\$282
With Medicare B Only	\$594		\$965	\$1,298	\$594
20-24.999 years					
Without Medicare	\$638		\$500	\$542	\$746
With Medicare A & B	\$144	\$382	\$145	\$198	\$158
With Medicare B Only	\$315		\$500	\$667	\$314
25-29.999 years					
Without Medicare	\$397		\$314	\$339	\$461
With Medicare A & B	\$100	\$243	\$101	\$133	\$109
With Medicare B Only	\$100		\$101	\$133	\$109
30-34.999 years*					
Without Medicare	\$276		\$221	\$238	\$319
With Medicare A & B	\$79	\$174	\$79	\$100	\$84
With Medicare B Only	\$79		\$79	\$100	\$84

* Further reductions for each year over 35.

Years of Service	Aetna Choice POS II and Aetna MedicareSM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Disability Benefit Recipient Premiums					
5-9.999 years					
Without Medicare	\$638		\$500	\$542	\$746
With Medicare A & B	\$144	\$382	\$145	\$198	\$158
With Medicare B Only	\$315		\$500	\$667	\$314
10-24.999 years & over					
Without Medicare	\$433		\$342	\$370	\$504
With Medicare A & B	\$107	\$264	\$107	\$143	\$116
With Medicare B Only	\$220		\$342	\$452	\$219
25 years & over					
Without Medicare	\$246		\$198	\$212	\$284
With Medicare A & B	\$73	\$156	\$73	\$92	\$78
With Medicare B Only	\$73		\$73	\$92	\$78



**2016 Contribution Rates
(continued)**

Years of Service	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Spouse Premiums (Service Retiree, Disability Recipient, or Member's Qualified Service)					
Up to 25 years					
Without Medicare	\$1,099		\$778	\$849	\$1,180
With Medicare A & B	\$253	\$729	\$254	\$361	\$282
With Medicare B Only	\$594		\$778	\$1,298	\$594
25-29.999 years					
Without Medicare	\$993		\$703	\$767	\$1,066
With Medicare A & B	\$231	\$660	\$232	\$328	\$257
With Medicare B Only	\$231		\$232	\$328	\$257
30 years & over					
Without Medicare	\$886		\$629	\$686	\$951
With Medicare A & B	\$209	\$590	\$210	\$296	\$232
With Medicare B Only	\$209		\$210	\$296	\$232

Years of Service	Aetna Choice POS II and Aetna Medicare SM	Aetna Indemnity	AultCare PPO and PrimeTime	HealthSpan	Paramount HMO
Child Premiums					
Child w/o Medicare A	\$242		\$150	\$162	\$213
Child with Medicare A & B	\$187	\$521	\$188	\$263	\$208



SERS' Non-Medicare Plans

2016 Aetna Choice POS II

The Aetna Choice POS II plan is a Preferred Provider Organization (PPO) plan. Prescription drug coverage is administered through Express Scripts. The Aetna Choice POS II plan is available throughout the United States.

2016 AultCare PPO

The AultCare PPO plan is available to a benefit recipient if the benefit recipient is under age 65 and not eligible for Medicare and lives in an AultCare PPO service area. The AultCare PPO plan is a Preferred Provider Organization (PPO) plan. Recipients enrolled in the AultCare PPO plan may use out-of network providers at a potentially increased cost. Prescription drug coverage is administered through AultCare.

The AultCare PPO plan is available in the following Ohio counties: Ashland, Belmont, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Holmes, Jefferson, Knox, Mahoning, Medina, Muskingum, Portage, Richland, Stark, Summit, Tuscarawas, and Wayne.

2016 HealthSpan HMO

The HealthSpan HMO plan is available to a benefit recipient if the benefit recipient is under age 65 and not eligible for Medicare and lives in a HealthSpan HMO service area. The HealthSpan HMO plan is a Health Maintenance Organization (HMO) plan. Recipients enrolled in the HealthSpan HMO plan must use HealthSpan HMO providers. Prescription drug coverage is administered through HealthSpan Pharmacy.

The HealthSpan HMO plan is available in the following Ohio counties: Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Stark, Summit, and Wayne.

2016 Paramount HMO

The Paramount HMO plan is available to a benefit recipient if the benefit recipient is under age 65 and not eligible for Medicare and lives in a Paramount HMO service area. The Paramount HMO plan is a Health Maintenance Organization (HMO) plan. Recipients enrolled in the Paramount HMO plan must use Paramount HMO providers. Prescription drug coverage is administered through Express Scripts.

The Paramount HMO plan is available in the following Ohio counties: Allen, Defiance, Erie, Fulton, Hancock, Henry, Huron, Lucas, Ottawa, Paulding, Putnam, Sandusky, Seneca, Williams, and Wood, and in the following Michigan counties: Lenawee and Monroe.



SERS' Medicare Plans

2016 Aetna MedicareSM Plan (PPO)

The Aetna MedicareSM Plan (PPO) is available to a benefit recipient if the benefit recipient has Medicare Part A and/or Medicare Part B. The Aetna MedicareSM Plan (PPO) is a Medicare Advantage (MA) plan. MA plans have a contract with Medicare to provide Medicare coverage. This plan is a Preferred Provider Organization (PPO) plan with an Extended Service Area (ESA) that allows members to use medical providers, such as doctors and hospitals, which may or may not be in the Aetna provider network as long as the provider accepts Medicare patients, and the provider will file claims with Aetna. Medicare Part D prescription drug coverage is administered through Express Scripts.

The Aetna MedicareSM Plan (PPO) is available throughout the U.S.

2016 Aetna Indemnity Plan

The Aetna Indemnity Plan is not available for optional enrollment. It is available only under special circumstances. SERS determines when enrollment is appropriate. Medicare Part D prescription drug coverage is administered through Express Scripts.

2016 AultCare PPO

The AultCare PPO plan is available to a benefit recipient if the recipient has Medicare Part B only and lives in an AultCare PPO service area. The AultCare PPO plan is not a Medicare Advantage plan. Prescription drug coverage is administered through AultCare.

The AultCare PPO plan is available in the following Ohio counties: Ashland, Belmont, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Holmes, Jefferson, Knox, Mahoning, Medina, Muskingum, Portage, Richland, Stark, Summit, Tuscarawas, and Wayne.



SERS' Medicare Plans (continued)

2016 HealthSpan Plan

The HealthSpan Plan is available to a benefit recipient if the recipient has Medicare Part A and/or Medicare Part B and lives in a HealthSpan service area. No new enrollees are being accepted into this plan for 2016. This plan allows members to use HealthSpan HMO providers or out-of-network providers who accept Original Medicare. Out-of-network claims must be submitted directly to Medicare by the provider. Medicare Part D prescription drug coverage is administered through HealthSpan Pharmacy.

The HealthSpan Plan is available in the following Ohio counties: Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit.

2016 Paramount Elite Medicare Advantage

The Paramount Elite Medicare Advantage plan is available to a benefit recipient if the recipient has Medicare Part A and Medicare Part B and lives in a Paramount Elite Medicare Advantage service area. The Paramount Elite plan is a Medicare Advantage plan. Recipients enrolled in the Paramount Elite Medicare Advantage must use Paramount HMO providers. Medicare Part D prescription drug coverage is administered through Express Scripts.

The Paramount Elite Medicare Advantage plan is available in the following Ohio counties: Fulton, Henry, Lucas, Ottawa, Williams, and Wood, and in the following Michigan counties: Lenawee and Monroe.

2016 PrimeTime Health Plan

The PrimeTime Health Plan is available to a benefit recipient if the recipient has Medicare Part A and Part B and lives in a PrimeTime Health Plan service area. The PrimeTime Health Plan is a Medicare Advantage plan through AultCare. Recipients enrolled in the PrimeTime Health Plan must use PrimeTime HMO providers. Medicare Part D prescription drug coverage is administered through PrimeTime.

The PrimeTime Health Plan is available in the following Ohio counties: Carroll, Columbiana, Harrison, Holmes, Jefferson, Mahoning, Stark, Summit, Tuscarawas, and Wayne.



Prescription Drug Coverage

Express Scripts Prescription Plan

Prescription drug coverage is administered through Express Scripts for members enrolled in the following health plans:

- ◇ Aetna Choice POS II (members without Medicare)
- ◇ Paramount HMO (members without Medicare)
- ◇ Aetna MedicareSM Plan (PPO) (members with both Medicare Part A and Medicare Part B and members with Medicare Part B only)
- ◇ Aetna Indemnity Plan (members with both Medicare Part A and Medicare Part B)
- ◇ Paramount Elite Medicare Advantage (members with both Medicare Part A and Medicare Part B and members with Medicare Part B only)

Members that are enrolled in a Non-Medicare plan may receive up to a 30-day supply per retail prescription. Members enrolled in a Medicare plan (members who have Medicare Part A and/or Medicare Part B) may receive up to a 90-day supply per retail prescription. Members pay \$7.50 for generic, 25% of formulary (\$25 minimum and \$100 maximum) for preferred brand. Members may also receive a 90-day supply of their prescriptions via mail-order with a co-pay of \$15 for generic, 25% of formulary (minimum \$45 and maximum \$200) for preferred brand.

Members pay special co-payments for insulin prescriptions. Members pay 25% or \$30 maximum for preferred brand, and 25% or \$45 maximum for a non-preferred brand retail 30-day supply prescription. Mail-order copayments are 25% or \$60 maximum for preferred brand, and 25% or \$115 maximum for a non-preferred brand 90-day supply prescription.

Members filling prescriptions at a pharmacy outside of the Express Scripts network are required to pay 100% of SERS' cost of the drug.

Members with Medicare Part B that are enrolled in the Aetna MedicareSM Plan (PPO) or Paramount Elite Medicare Advantage may have some supplies and medicines covered through their health plan rather than the Express Scripts prescription drug plan.



Prescription Drug Coverage (continued)

AultCare and PrimeTime Pharmacy

Members enrolled in the AultCare PPO plan (members without Medicare and members with Medicare Part B only) and members enrolled in the PrimeTime Health Plan (members with both Medicare Part A and Medicare Part B), may receive up to a 30-day supply per retail prescription. The co-pay is \$7.50 for generic, 25% of formulary (\$25 minimum and \$100 maximum) for preferred brand and 100% for a non-preferred brand prescription (50% if enrolled in a Medicare plan). Members may also receive a 90-day supply of their prescriptions via mail-order with a co-pay of \$15 for generic, 25% of formulary (minimum \$45 and maximum \$200) for preferred brand, and 100% of the cost for a non-preferred brand prescription (50% if enrolled in a Medicare plan).

Members pay special co-payments for insulin prescriptions. Members pay \$30 for preferred brand, and \$45 for a non-preferred brand retail 30-day supply prescription. Mail-order copayments are \$60 for preferred brand, and \$115 for a non-preferred brand 90-day supply prescription.

HealthSpan Pharmacy

Members enrolled in the HealthSpan (members without Medicare) plan may receive up to a 30-day supply per retail prescription with a co-pay of \$10 for generic and a co-pay of \$25 for preferred brand prescriptions. Members may also receive a 60-day supply of their prescriptions via mail-order with a co-pay of \$10 for generic and a co-pay of \$25 for preferred brand prescriptions.

Members enrolled in HealthSpan plan (members with both Medicare Part A and Medicare Part B and members with Medicare Part B only) may receive up to a 30-day supply per retail prescription. The co-pay is \$15 for generic and \$30 for preferred brand prescriptions. Members may also receive a 60-day supply of their prescriptions via mail-order with a co-pay of \$15 for generic and a co-pay of \$30 for preferred brand prescriptions.

Medicare Part D Prescription Drugs

SERS' health plan participants enrolled in a Medicare plan are automatically covered under a Medicare Part D prescription drug plan through SERS and should not enroll in a separate Medicare Part D plan. Enrolling in another Part D plan would cause cancellation of SERS coverage for both medical and prescription drug benefits per federal law.



Non-Medicare Plan Benefits

	Aetna Choice POS II (In-Network)	AultCare PPO	HealthSpan	Paramount HMO
Annual Medical & Prescription Drug	\$4,250/person \$8,500/family &	\$4,250/person \$8,500/family &	\$4,250/person \$8,500/family &	\$4,250/person \$8,500/family &
Out-of-Pocket Maximum	\$2,600/person \$5,200/family	\$2,600/person \$5,200/family	\$2,600/person \$5,200/family	\$2,600/person \$5,200/family
Deductible	\$1,500/person \$3,000/family	\$1,500/person \$3,000/family	\$1,500/person \$3,000/family	\$1,500/person \$3,000/family
Primary Care Office Visit	\$20 co-pay	\$20 co-pay	\$20 co-pay	\$20 co-pay
Specialist Office Visit	\$40 co-pay	\$40 co-pay	\$40 co-pay	\$40 co-pay
Outpatient Diagnostic X-Ray and Lab	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Retail Walk-In Clinic	\$20 co-pay	Not covered	Not covered	Not covered
Urgent Care	\$40 co-pay	\$40 co-pay	\$40 co-pay	\$40 co-pay
Emergency Room	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Ambulance	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Inpatient Hospital	20% coinsurance after \$250 co-pay	20% coinsurance after \$250 co-pay	20% coinsurance after \$250 co-pay	20% coinsurance
Outpatient Surgery	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Skilled Nursing Facility (100-day max)	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Home Health Care	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Hospice Health Care	100% coverage	Inpatient: 100% coverage (30-day lifetime limit) Outpatient: 20% coinsurance	100% coverage	20% coinsurance
Outpatient Short-Term Rehab	20% coinsurance	20% coinsurance	20% coinsurance	\$40 co-pay
Chiropractic	20% coinsurance	20% coinsurance	\$20 co-pay (20 visit limit)	20% coinsurance
Durable Medical Equipment	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Prescription Drugs	Express Scripts <i>Retail 30-day max:</i> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <i>Mail order 90-day max:</i> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <i>Insulin Retail</i> 25% or \$30 max preferred brand, \$45 max non-preferred brand <i>Insulin Mail Order</i> 25% or \$60 preferred brand, \$115 max non-preferred brand	AultCare <i>Retail 30-day max:</i> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <i>Mail order 90-day max:</i> \$15 generic, 25% preferred brand (\$45 min, \$200 max) Non-preferred at 100% <i>Insulin Retail</i> \$30 preferred brand, \$45 non-preferred brand <i>Insulin Mail Order</i> \$60 preferred brand, \$115 non-preferred brand	HealthSpan <i>Retail 30-day max:</i> \$10 generic, \$25 preferred brand <i>Mail order 60-day max:</i> \$10 generic, \$25 preferred brand	Express Scripts <i>Retail 30-day max:</i> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <i>Mail order 90-day max:</i> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <i>Insulin Retail</i> 25% or \$30 max preferred brand, \$45 max non-preferred brand <i>Insulin Mail Order</i> 25% or \$60 preferred brand, \$115 max non-preferred brand



Medicare Plan Benefits

	Aetna Medicare SM Plan (PPO)	PrimeTime Health Plan	HealthSpan	Paramount Elite Medicare Advantage
Annual Out-of-Pocket Maximum	\$3,000 per person	\$3,000 per person	\$3,400 per person	\$3,000 per person
Deductible	None	None	None	None
Primary Care Office Visit	\$20 co-pay	\$20 co-pay	\$20 co-pay	\$20 co-pay
Specialist Office Visit	\$40 co-pay	\$40 co-pay	\$40 co-pay	\$40 co-pay
Outpatient Diagnostic X-Ray	\$25 co-pay	100% coverage	100% coverage	100% coverage
Outpatient Diagnostic Lab	100% coverage	100% coverage	100% coverage	100% coverage
Retail Walk-In Clinic	\$20 co-pay	Not covered	Not covered	Not covered
Urgent Care	\$40 co-pay	\$40 co-pay	\$40 co-pay	\$40 co-pay
Emergency Room	\$75 co-pay	\$75 co-pay	\$75 co-pay	\$75 co-pay
Ambulance	20% coinsurance	\$75 co-pay	\$50 co-pay	100% coverage
Inpatient Hospital	\$150 co-pay per day 1-5, then 100%	\$150 co-pay per day 1-5, then 100%	\$100 co-pay per day 1-5, then 100%	\$150 co-pay per day 1-5, then 100%
Outpatient Surgery	\$200 co-pay	\$200 co-pay	\$200 co-pay	\$200 co-pay
Skilled Nursing Facility (100-day max)	Co-pay: \$0 per day 1-10, \$25 per day 11-20, \$50 per day 21-100	Co-pay: \$0 per day 1-15, \$20 per day 16-30, \$0 per day 31-100	100% coverage for days 1-100	Co-pay: \$0 per day 1-20, \$95 per day 21-100
Home Health Care	100% coverage	100% coverage	100% coverage	100% coverage
Hospice	Covered per Medicare	Covered per Medicare	Covered per Medicare	Covered per Medicare
Outpatient Short-Term Rehab	\$25 co-pay	\$5 co-pay (cardiac at 100% coverage)	\$20 co-pay	\$20 co-pay
Chiropractic	\$15 co-pay limited to Medicare coverage	\$15 co-pay limited to Medicare coverage	\$20 co-pay for manual manipulations/sublux	\$20 co-pay limited to Medicare coverage
Durable Medical Equipment	20% coinsurance	20% coinsurance	20% coinsurance	20% coinsurance
Prescription Drugs	Express Scripts Medicare D PDP <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <u>Insulin Retail</u> 25% or \$30 max preferred brand, \$45 max non-preferred brand <u>Insulin Mail Order</u> 25% or \$60 preferred brand, \$115 max non-preferred brand	PrimeTime <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max), 50% non-preferred brand <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max), 50% non-preferred brand <u>Insulin Retail</u> \$30 preferred brand, \$45 non-preferred brand <u>Insulin Mail Order</u> \$60 preferred brand, \$115 non-preferred brand	HealthSpan <u>Retail 30-day max:</u> \$15 generic, \$30 preferred brand <u>Mail order 60-day max:</u> \$15 generic, \$30 preferred brand	Express Scripts Medicare D PDP <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <u>Insulin Retail</u> 25% or \$30 max preferred brand, \$45 max non-preferred brand <u>Insulin Mail Order</u> 25% or \$60 preferred brand, \$115 max non-preferred brand



SCHEDULE D

DETAILED TABULATIONS OF THE DATA

**All Retirees, Spouses and Dependents Receiving Health Care
Male and Female Demographic Breakdown
As of June 30, 2015
Tabulated by Attained Ages**

Attained Age	Number of		Total Number
	Males	Females	
Under 20	79	80	159
20-24	86	85	171
25-29	32	26	58
30-34	1	3	4
35-39	5	6	11
40-44	8	1	9
45-49	35	56	91
50-54	225	214	439
55-59	716	928	1,644
60-64	1,200	2,184	3,384
65-69	1,791	4,651	6,442
70-74	2,270	5,481	7,751
75-79	2,555	5,764	8,319
80-84	2,045	4,704	6,749
85-89	1,307	3,864	5,171
90-94	572	2,259	2,831
95-99	112	650	762
100	2	41	43
101	3	28	31
102	2	9	11
103	1	14	15
104	2	3	5
105 & Over	0	7	7
Total	13,049	31,058	44,107



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

Year Ended	Added to Rolls		Removed from Rolls*		Rolls at Year-End		% Increase in Projected Benefits	Average Projected Benefits
	Number	Projected Benefits	Number	Projected Benefits	Number	Projected Benefits		
6/30/2010	1,779	5,931,864	3,039	6,978,743	50,605	88,077,033	n/a	1,740
6/30/2011	1,842	6,078,819	4,296	6,244,776	48,151	81,358,997	(7.63)%	1,690
6/30/2012	2,073	9,280,779	3,785	5,391,796	46,439	90,708,513	11.49%	1,953
6/30/2013	2,110	8,977,566	3,217	4,370,993	45,332	100,514,730	10.81%	2,217
6/30/2014	2,251	8,658,731	2,873	4,834,922	44,710	87,007,272	(13.44)%	1,946
6/30/2015	2,329	8,897,861	2,932	4,682,901	44,107	90,855,858	4.42%	2,060

* The benefits removed from rolls do not include subsidies that were changed due to premium changes, plan election changes or reductions due to members obtaining Medicare eligibility.

**Terminated Vested Members Eligible for Health Care
Male and Female Demographic Breakdown
As of June 30, 2015
Tabulated by Attained Ages**

Attained Age	Number of		Total Number
	Males	Females	
Under 35	10	8	18
35-39	55	64	119
40-44	74	174	248
45-49	142	386	528
50-54	215	850	1,065
55-59	284	1,339	1,623
60 & Over	168	882	1,050
Total	948	3,703	4,651



**Total Active Members as of June 30, 2015
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 - 29	30+	
Under 20	814							814
Avg Pay	\$5,875							\$4,782,232
20-24	5,766	65						5,831
Avg Pay	\$8,753	\$19,976						\$51,768,311
25-29	6,014	747	38					6,799
Avg Pay	\$13,610	\$27,283	\$33,039					\$103,484,755
30-34	5,421	1,433	437	65				7,356
Avg Pay	\$15,671	\$29,483	\$37,156	\$42,738				\$146,218,176
35-39	5,901	1,870	972	452	24			9,219
Avg Pay	\$14,947	\$26,526	\$36,226	\$40,861	\$48,988			\$192,661,071
40-44	6,851	3,036	1,834	1,030	294	51		13,096
Avg Pay	\$14,324	\$24,314	\$31,525	\$39,485	\$44,520	\$45,905		\$285,868,486
44-49	6,320	3,970	3,006	2,170	703	344	40	16,553
Avg Pay	\$14,688	\$22,446	\$28,507	\$34,004	\$44,738	\$49,056	\$51,455	\$391,801,198
50-54	5,162	3,877	4,345	4,242	1,733	1,013	379	20,751
Avg Pay	\$15,352	\$22,802	\$26,951	\$30,779	\$36,603	\$44,397	\$51,119	\$543,098,620
55-59	3,984	2,998	3,703	4,754	3,112	1,621	729	20,901
Avg Pay	\$15,540	\$23,372	\$27,454	\$29,431	\$32,126	\$38,273	\$46,729	\$569,637,552
60-64	2,417	1,801	1,923	2,564	2,161	1,937	831	13,634
Avg Pay	\$14,410	\$22,717	\$28,399	\$29,831	\$31,734	\$34,134	\$39,588	\$374,432,643
65-69	1,183	790	765	660	642	750	680	5,470
Avg Pay	\$10,174	\$20,064	\$26,263	\$29,502	\$33,446	\$32,417	\$32,854	\$135,575,615
70 & over	563	477	364	223	187	189	428	2,431
Avg Pay	\$8,690	\$13,793	\$19,140	\$24,143	\$26,464	\$26,855	\$28,665	\$46,115,143
Totals	50,396	21,064	17,387	16,160	8,856	5,905	3,087	122,855
Avg Pay	\$13,774	\$23,655	\$28,564	\$31,406	\$34,341	\$37,550	\$39,846	\$23,161

Averages:
Age: 48.5
Service: 9.7
Annual Pay: \$23,161



**Male Active Members as of June 30, 2015
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 - 29	30+	
Under 20	460							460
Avg Pay	\$6,203							\$2,853,493
20-24	2,717	38						2,755
Avg Pay	\$8,839	\$22,749						\$24,880,456
25-29	2,655	376	30					3,061
Avg Pay	\$13,538	\$30,832	\$34,463					\$48,570,273
30-34	2,128	640	239	37				3,044
Avg Pay	\$16,668	\$33,630	\$44,387	\$50,684				\$69,476,964
35-39	1,871	601	355	204	14			3,045
Avg Pay	\$16,481	\$33,436	\$47,454	\$49,089	\$56,295			\$78,579,914
40-44	2,095	749	436	336	133	29		3,778
Avg Pay	\$15,100	\$32,502	\$46,361	\$51,166	\$51,419	\$49,365		\$101,655,028
44-49	2,085	795	512	458	264	166	16	4,296
Avg Pay	\$15,617	\$30,569	\$43,065	\$50,746	\$57,238	\$53,848	\$55,095	\$127,085,221
50-54	1,823	933	686	611	344	371	194	4,962
Avg Pay	\$17,070	\$29,642	\$39,757	\$47,613	\$52,554	\$52,773	\$53,222	\$163,121,014
55-59	1,572	949	769	649	411	369	317	5,036
Avg Pay	\$17,360	\$28,352	\$39,178	\$43,663	\$48,086	\$50,484	\$53,697	\$168,074,725
60-64	1,178	787	638	473	361	290	242	3,969
Avg Pay	\$15,412	\$26,728	\$35,924	\$41,107	\$45,468	\$49,179	\$51,140	\$124,605,712
65-69	616	414	322	157	128	96	93	1,826
Avg Pay	\$11,667	\$22,876	\$31,445	\$38,983	\$42,236	\$44,610	\$44,912	\$46,768,664
70 & over	291	245	204	95	49	33	35	952
Avg Pay	\$10,281	\$17,451	\$22,040	\$29,749	\$31,061	\$35,470	\$38,580	\$18,632,436
Totals	19,491	6,527	4,191	3,020	1,704	1,354	897	37,184
Avg Pay	\$14,369	\$29,426	\$39,535	\$45,742	\$49,250	\$50,438	\$51,429	\$26,202

Averages:
Age: 46.4
Service: 7.7
Annual Pay: \$26,202



**Female Active Members as of June 30, 2015
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 - 29	30+	
Under 20	354							354
Avg Pay	\$5,448							\$1,928,739
20-24	3,049	27						3,076
Avg Pay	\$8,676	\$16,074						\$26,887,855
25-29	3,359	371	8					3,738
Avg Pay	\$13,666	\$23,686	\$27,700					\$54,914,481
30-34	3,293	793	198	28				4,312
Avg Pay	\$15,027	\$26,136	\$28,427	\$32,238				\$76,741,212
35-39	4,030	1,269	617	248	10			6,174
Avg Pay	\$14,234	\$23,254	\$29,766	\$34,092	\$38,759			\$114,081,157
40-44	4,756	2,287	1,398	694	161	22		9,318
Avg Pay	\$13,982	\$21,632	\$26,898	\$33,829	\$38,820	\$41,344		\$184,213,459
44-49	4,235	3,175	2,494	1,712	439	178	24	12,257
Avg Pay	\$14,230	\$20,412	\$25,518	\$29,525	\$37,221	\$44,587	\$49,029	\$264,715,977
50-54	3,339	2,944	3,659	3,631	1,389	642	185	15,789
Avg Pay	\$14,415	\$20,634	\$24,551	\$27,946	\$32,652	\$39,557	\$48,913	\$379,977,606
55-59	2,412	2,049	2,934	4,105	2,701	1,252	412	15,865
Avg Pay	\$14,354	\$21,065	\$24,381	\$27,181	\$29,698	\$34,673	\$41,367	\$401,562,827
60-64	1,239	1,014	1,285	2,091	1,800	1,647	589	9,665
Avg Pay	\$13,458	\$19,604	\$24,662	\$27,280	\$28,980	\$31,485	\$34,841	\$249,826,931
65-69	567	376	443	503	514	654	587	3,644
Avg Pay	\$8,553	\$16,967	\$22,497	\$26,543	\$31,258	\$30,627	\$30,944	\$88,806,950
70 & over	272	232	160	128	138	156	393	1,479
Avg Pay	\$6,987	\$9,929	\$15,442	\$19,982	\$24,832	\$25,033	\$27,782	\$27,482,707
Totals	30,905	14,537	13,196	13,140	7,152	4,551	2,190	85,671
Avg Pay	\$13,398	\$21,064	\$25,080	\$28,111	\$30,789	\$33,716	\$35,102	\$21,841

Averages:

Age: 49.4
 Service: 10.6
 Annual Pay: \$21,841



**Active Members as of June 30, 2015
Tabulated by Annual Pay**

Annual Pay	Number of Active Members			Portion of Total Number	
	Men	Women	Totals	Group	Cumulative
Less than \$1,000	197	225	422	0.3%	0.3%
\$1,000 - 1,999	1,160	1,130	2,290	1.9%	2.2%
2,000 - 2,999	2,169	1,874	4,043	3.3%	5.5%
3,000 - 3,999	2,306	2,201	4,507	3.7%	9.2%
4,000 - 4,999	1,778	2,278	4,056	3.3%	12.5%
5,000 - 5,999	1,350	2,172	3,522	2.9%	15.3%
6,000 - 6,999	1,075	2,224	3,299	2.7%	18.0%
7,000 - 7,999	880	2,146	3,026	2.5%	20.5%
8,000 - 8,999	705	2,250	2,955	2.4%	22.9%
9,000 - 9,999	646	2,335	2,981	2.4%	25.3%
10,000 - 11,999	1,219	4,584	5,803	4.7%	30.0%
12,000 - 13,999	1,226	4,759	5,985	4.9%	34.9%
14,000 - 15,999	1,183	5,240	6,423	5.2%	40.1%
16,000 - 17,999	1,245	6,031	7,276	5.9%	46.1%
18,000 - 19,999	1,147	5,965	7,112	5.8%	51.8%
20,000 - 24,999	2,459	12,795	15,254	12.4%	64.3%
25,000 - 29,999	2,066	7,942	10,008	8.1%	72.4%
30,000 - 35,999	2,984	6,812	9,796	8.0%	80.4%
36,000 and over	11,389	12,708	24,097	19.6%	100.0%
Totals	37,184	85,671	122,855		



SCHEDULE E

GLOSSARY

Actuarial Accrued Liability. 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".

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

Actuarial Assumptions. 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.

Actuarial Cost Method. 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".

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

Actuarial Present Value. 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.

Age-Related Morbidity. Assumed increase to the net incurred claims related to increase in age.

Amortization. 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.

Experience Gain (Loss). 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.

Health Care Cost Trend Rates. The annual assumed rate of increase for both claims and contributions.

Normal Cost. 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.

Plan Termination Liability. 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.

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



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

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