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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

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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,

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

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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

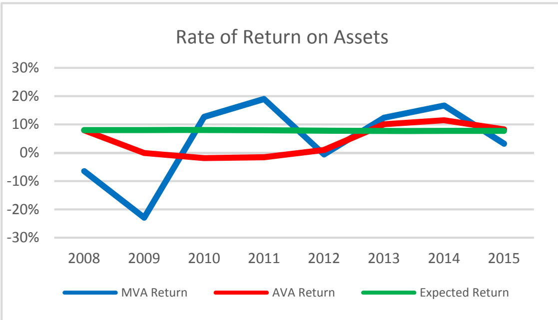
Numerous factors contributed to the change in the System's assets, liabilities, and actuarial contribution rate between June 30, 2014 and June 30, 2015. The components are examined in the following discussion.

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:

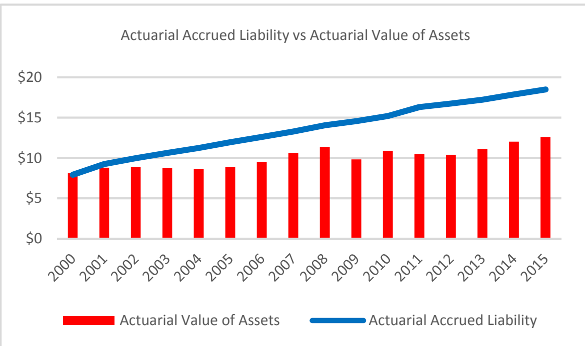
	Actuarial Value of Assets	Market Value of Assets
Actuarial Accrued Liability	$18,503,280,961	$18,503,280,961
Value of Assets	12,601,679,774	12,797,184,030
Unfunded Actuarial Accrued Liability*	5,901.601,187	5,706,096,931
Funded Ratio	68.11%	69.16%

* 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 ($ Millions)		$5,851.3
· 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

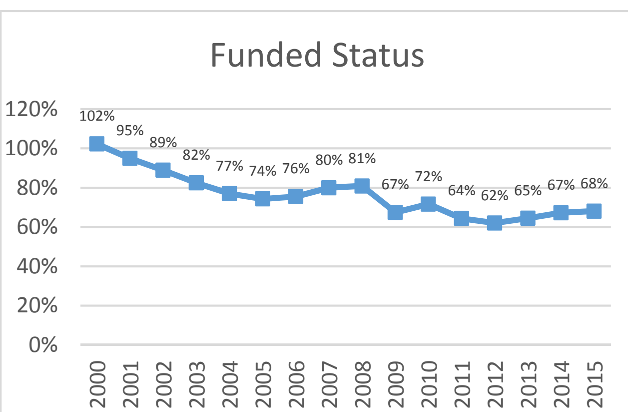
As shown on the previous page, various components impacted the UAAL. Actuarial gains (losses), which result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions, are reflected in the UAAL and are measured as the difference between the expected unfunded 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	11.76%	11.77%
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

		Group Averages		
Number	Payroll	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

			Group Averages	
Type of Benefit Payment	**Number**	**Annual Benefits**	**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 x (A + B – I)], where

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

SECTION IV - COMMENTS ON VALUATION

Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 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:		19.9	20.4	20.5	20.3	18.7	19.5
	[(1) + (2) - (3)*.5] x .0775							
(5)	Expected UAAL before changes:	$	266.5	272.6	275.3	271.2	248.3	252.0
	(1) + (2) - (3) + (4)							
(6)	Change due to plan amendments		0.0	0.0	0.6	5.6	0.0	0.0
(7)	Change due to new actuarial		0.0	0.0	0.0	0.0	(10.5)	0.0
	assumption or methods							
(8)	Expected UAAL after changes:	$	266.5	272.6	274.7	265.6	258.8	252.0
	(5) - (6) - (7)							
(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:		1.1	1.1	1.2	1.1	0.9	1.0
	[(1) + (2) - (3)*.5] x .0775							
(5)	Expected UAAL before changes:	$	14.1	15.0	15.9	14.5	11.6	12.3
	(1) + (2) - (3) + (4)							
(6)	Change due to plan amendments		0.0	0.0	0.1	0.1	0.0	0.0
(7)	Change due to new actuarial		0.0	0.0	0.0	0.0	(1.2)	0.0
	assumption or methods							
(8)	Expected UAAL after changes:	$	14.1	15.0	15.8	14.4	12.8	12.3
	(5) - (6) - (7)							
(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	Pension		Medicare Part B		Post-Retirement Death Benefits		Total Basic Benefits	
	$ 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.	$	(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%	0.02%	0.20%	11.26%
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 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)
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	$ 8,585,751,881	$ 8,504,427,204
Total assets	$ 21,187,431,655	$ 20,534,905,680
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	$ 21,187,431,655	$ 20,534,905,680

The following tables provide the solvency test for SERS members.

Solvency Test
($ Millions)

Valuation Date	Aggregate Accrued Liabilities For (1) Active Member Contributions	(2) Retired Members & Beneficiaries	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset (1)	(2)	(3)
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	(7,535,690)	(28,139,159)			
	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	256,133,554	(225,310,707)	123,003,178	256,569,995	(146,879,637)
	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

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

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

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

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

		Annual Rates of	
Service	Merit & Seniority	Base (Economy)	Increase Next Year
0	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

Retire before August 1, 2017 or have 25 years of service or more on or before August 1, 2017	Attainment of age 65 with at least five 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.

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:

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

Members attaining 25 years of service after August 1, 2017

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

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

Disability Retirement

Condition for Retirement	An allowance is paid upon becoming permanently disabled after completion of at least 5 years of total service credit.

Amount of Allowance

1. For those who were active members prior to July 29, 1992 and did not elect the benefit structure outlined below, an allowance based on service to date of disablement, plus, if the age at disablement is less than 60, continuous service to age 60. The allowance is computed in the same manner as the defined benefit service retirement allowance, subject to a minimum of 30% of FAS and a maximum of 75% of FAS. It is payable for life, unless terminated.

2. For those who became active members after July 28, 1992, and for those who were active members prior to July 29, 1992 who so elected, an allowance equal to the greater of (i) 45% of FAS, or (ii) the lesser of 60% of FAS, or the allowance computed in the same manner as the defined benefit service retirement allowance. The allowance will continue until:

   a. The date the member is granted a service retirement benefit, or
   b. The date the allowance is terminated, or
   c. The later of the date the member attains age 65 or the date the disability allowance has been paid for the minimum duration in accordance with the following schedule:

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

Death Benefits Prior to Retirement

Death While Eligible to Retire

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

Survivor (Death-in-Service) Allowances

Condition for Benefit

Upon the death of a member with at least 1½ years of Ohio service credit and with at least ¼ year of Ohio contributing service credit within 2½ years prior to the date of death, the survivor allowances are payable as follows:

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:

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

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

Years of Service	**Annual Benefit as Percent of Member's FAS**
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	If a re-employed retirant dies while employed, a lump sum payment of the monthly annuity, discounted to the present value using the current actuarial assumption rate of interest, will be paid to his beneficiary. If a re-employed retirant dies while receiving a monthly annuity, a lump sum payment will be made to a beneficiary in an amount equal to the excess, if any, of the lump sum payment the re-employed retirant would have received at the effective date of retirement over the sum of the annuity payments received by the re-employed retirant to the date of death.
Member Contributions	Each re-employed retirant is required to contribute 10% of his pay by payroll deductions.
Employer Contributions	Employer contributions are expressed as percents of member covered payroll. Employers are required to contribute 14% of payroll.
Other Benefits	Re-employed retirants of SERS are not eligible to receive any of the other benefits provided to SERS members.

Member Contributions 10% of salary.

SCHEDULE E

DETAILED TABULATIONS OF THE DATA

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

Year Ending June 30	2010	2011	2012	2013	2014	2015
Number of Retiree Members						
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
Annual Retirement Allowances						
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
Number of Retiree Members			
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
Annual Retirement Allowances			
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	12,047	10,813	1,048	186
	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

	Retirement		Disability Retirement		Total	
Attained Age	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

	Life Annuities			Periods Certain			Total		
Attained Age	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 Males	Number of Females	Total Number
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 0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Totals
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)

	Gain (Loss) by Risk Area										
	Economic		Non-Economic								
Year Ending June 30	Pay Increases	Investment	Age & Service Retirement	Disability	Death In Service	Withdrawal	New Members	Retiree Mortality	Other +	$	% of AAL
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)

			$ Millions
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		$ 62.1

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	Pay Increases 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)

	Years of Service to Valuation Date							
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	Total
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							
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	Total
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	(46,817,122)	10,284,099	124,280	(36,408,743)
Total Active AAL	7,040,255,617	129,765,219	7,454,781	7,177,475,617
Total AAL	$ 18,086,736,893	$ 381,349,497	$ 35,194,571	$ 18,503,280,961

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	11,362,834	7,454,781
Total	$9,861,626,311	$7,177,475,617
Retirees		
Retirement/Survivor/Disabilty	$10,495,182,385	$10,495,182,385
Medicare Part B	239,063,493	239,063,493
Death after Retirement	26,534,305	26,534,305
Total	$10,760,780,183	$10,760,780,183
Deferred Vested Members	286,229,049	286,229,049
Inactive Members	278,796,112	278,796,112
Total Actuarial Values	$21,187,431,655	$18,503,280,961
Actuarial Value of Assets		12,601,679,774
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						
					Number		Annual Benefits		Accrued Liability	Valuation Assets	UAAL
		Payroll	Average Salary			Active /					
	Number	$ Millions	$	% Increase	Retired	Retired	$ Millions	% of Payroll	$ Millions		
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