

# State Teachers Retirement System of Ohio

Actuarial Valuation and Review as of July 1, 2014

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November 11, 2014

Board of Trustees State Teachers Retirement System of Ohio 275 East Broad Street Columbus, Ohio 43215

Ladies and Gentlemen:

This report presents the results of the annual valuation of the assets and liabilities of The State Teachers Retirement System of Ohio (STRS Ohio or System) as of July 1, 2014, prepared in accordance with Section 3307.51 of Chapter 3307 of the Ohio Revised Code. This valuation takes into account all of the pension and survivor benefits to which members are entitled. A separate valuation of the retiree health care benefits provided by the System is performed as of January 1 of each year.

#### **Actuarial Assumptions and Methods**

With the exception of the retirement rates, the valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, reflecting the three-year experience review covering the period July 1, 2008 through June 30, 2011. The retirement rates, adopted effective July 1, 2013, were modified to reflect the plan changes that were adopted with the pension reform legislation. The other actuarial methods are unchanged from the prior valuation.

#### Assets and Membership Data

STRS Ohio reported to the actuary the individual data for members of the System as of the valuation date. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared by STRS Ohio.

#### **Funding Adequacy**

The member and employer contribution rates are established by statute. The member contribution rate increased from 11% of salary to 12% of salary effective July 1, 2014. The member contribution rate is scheduled to increase to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016. The employer contribution rate is 14% of payroll. For fiscal 2015, the total contribution rate is 27% of payroll. In the past, the Board typically allocated the total contribution rate between pension and survivor benefits and health care. For fiscal 2015, the Board allocated the total 27% toward pension and survivor benefits and health care. The valuation indicates that the pension and survivor benefits contribution rate of 27% for fiscal 2015, increasing by 1% to 28% of payroll in fiscal 2016 and after is sufficient to provide for the payment of the pension and survivor benefits, as the funding period is 29.5 years (provided that the funding period decreases by one year in each future year.)

The valuation indicates that for the fiscal year ending June 30, 2014, the actuarial experience of STRS Ohio was somewhat favorable generating a net actuarial gain of \$3,178 million. This gain is the net result of a \$3,334 million gain due to favorable investment return experience and a net \$156 million loss due to unfavorable demographic experience in fiscal 2014.

#### **Financial Results**

This report shows detailed summaries of the financial results of the valuation used in preparing this valuation. The actuary prepared supporting schedules included in the Actuarial and Statistical Sections of the STRS Ohio Comprehensive Annual Financial Report. The actuary also prepared the trend data schedules included in the Financial Section of the STRS Ohio Comprehensive Annual Financial Report.

#### **Actuarial Certification**

In preparing the results presented in this report, we have relied upon information STRS Ohio provided to us regarding the benefit provisions, System members, benefit payments and unaudited plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented also comply with Chapter 3307 of the Ohio Revised Code, and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries. Both are Fellows of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and both are experienced in performing valuations for large public retirement systems. They both meet the Qualification Standards of the American Academy of Actuaries.

Respectfully submitted,

Segal Consulting, a Member of the Segal Group

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Kim Nicholl, FSA, MAAA, EA Senior Vice President and Actuary

Matthew A. Strom, FSA, MAAA, EA Vice President and Consulting Actuary

By:

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#### SIGNIFICANT ISSUES IN THE VALUATION YEAR

- 1. The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. Statement 67 is effective with the fiscal year ending June 30, 2014, for Plan reporting. Statement 68 is effective with the fiscal year ending June 30, 2015, for employer reporting. The information contained in this valuation is intended to be used (along with other information) to comply with both Statements 67 and 68.
- 2. The employer contribution rate for the fiscal year beginning July 1, 2014, is equal to 14% of payroll, of which the entire amount is allocated to the pension. The effective amortization period to fully amortize the unfunded actuarial accrued liability is 29.5 years.
- 3. The funded ratio based on the actuarial value of assets over the actuarial accrued liability as of July 1, 2014, is 69.3%, compared to 66.3% as of July 1, 2013. This ratio is a measure of funded status, and its history is a measure of funding progress. The increase in the member contribution rate and the recent changes in plan provisions are expected to improve the funded ratio of the System over time.
- 4. For the year ended June 30, 2014, Segal has determined that the asset return on a market value basis was 16.53%. After gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was 13.32%. This represents an experience gain when compared to the assumed rate of 7.75%. As of June 30, 2014, the actuarial value of assets (\$66.7 billion) represented 92.8% of the market value (\$71.8 billion).
- 5. The portion of deferred investment gains and losses recognized during the calculation of the July 1, 2014, actuarial value of assets contributed to a gain of \$3,334 million. Conversely, the demographic and liability experience resulted in \$156 million loss.
- 6. As page 10 of this report indicates, the total investment gain not yet recognized as of June 30, 2014, is \$5.2 billion. This unrecognized gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent they are not offset by recognition of losses derived from future experience. This means that earning the assumed rate of investment return of 7.75% per year (net of investment expenses) on a market value basis will result in investment gains on the actuarial value of assets in the next few years.

- 7. As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 92.8% of the market value of assets as of June 30, 2014. Guidelines in Actuarial Standard of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding market value. The actuarial asset method complies with these guideline.
- 8. The System's cash flow (contributions minus benefit payments, refunds, and expenses) as a percentage of the market value of assets is -5.7% as of June 30, 2014, compared to -6.0% as of June 30, 2013. The scheduled increases in the member contribution rates will slightly improve the cash flow percentage, assuming all other experience emerges as expected.
- 9. This actuarial valuation report as of July 1, 2014, is based on financial data as of that date. Changes in the value of assets subsequent to that date are not reflected.
- 10. When measuring pension liability for GASB purposes, the same actuarial cost method (Entry Age Normal) is used to determine the funded status of the Plan, the actuarially determined contribution rate, and the effective amortization period. In addition, the GASB blended discount rate calculation results in the same discount rate (expected return on assets) as used for funding purposes (7.75%). This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding. We note that the same is true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- 11. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is the same as the Unfunded Actuarial Accrued Liability on a market value basis. The NPL decreased from \$28,973,947,372 as of June 30, 2013, to \$24,323,460,773 as of June 30, 2014.

#### Summary of Key Valuation Results (\$ in thousands)

		2014		2013
	Defined Benefit	Combined	Total	Total
Membership Data				
1. Number of Members				
a. Active Members				
(i) Defined Benefit	164,028	5,267	169,295	169,945
(ii) Defined Contribution	8,483	_	8,483	8,197
b. Reemployed Retirees	25,156	-	25,156	24,228
c. Inactive Members	,		,	,
(i) Eligible for Allowances	16,639	397	17,036	17,081
(ii) Eligible for Refunds Only	133,580	1,264	134,844	136,105
d. Retirees and Beneficiaries	-	-	-	-
	<u>152,097</u>		152,208	149,221
e. Total	499,983	7,039	507,022	504,777
2. Annualized Salaries (for period beginning July 1, 2014)	\$9,713,854	\$283,241	\$9,997,095	\$9,642,289
3. Membership Payroll				
a. STRS Defined Benefit Plan Members	\$9,572,224	\$260,804	\$9,833,028	\$9,917,911
b. STRS Defined Contribution Plan Members	301,687	-	301,687	279,054
c. Alternative Retirement Plan Members	590,614		590,614	568,670
d. Total	\$10,464,525	\$260,804	\$10,725,329	\$10,765,635
4. Annual Allowances	\$6,396,558	\$977	\$6,397,535	\$6,190,182
Valuation Results				
5. Actuarial Accrued Liability				
a. Active Members	\$23,633,097	\$147,895	\$23,780,992	\$23,865,966
b. Reemployed Retirees	385,739	-	385,739	384,253
c. Inactive Members	1,363,932	5,198	\$1,369,130	1,354,506
d. Retirees and Beneficiaries				
(i) Annuity and Pension Reserve Fund	68,643,784	10,636	68,654,420	66,957,724
(ii) Survivors' Benefit Fund	<u>1,121,838</u>		1,121,838	<u>1,117,716</u>
(iii) Subtotal	69,765,622	10,636	69,776,258	68,075,440
e. Total	\$95,148,390	\$163,729	\$95,312,119	\$93,680,166
6. Defined Contribution Account Balances	854,938	<u> </u>	854,938	686,528
7. Total Actuarial Accrued Liability	\$96,003,328	\$163,729	\$96,167,057	\$94,366,694



#### Summary of Key Valuation Results (continued) (\$ in thousands)

		2014		2013
	Defined Benefit	Combined	Total	Total
Valuation Results				
8. Total Actuarial Accrued Liability	\$96,003,328	\$163,729	\$96,167,057	\$94,366,694
9. Actuarial Value of Pension Assets			66,657,175	<u>62,590,786</u>
10. Unfunded Actuarial Accrued Liability			\$29,509,882	\$31,775,907
11. Funding Period <sup>1</sup>			29.5 years	40.2 years
12. Funded Status			69.3%	66.3%
13. Normal Cost Rate	11.74%	4.69%	11.54%	11.79%
14. Member Contribution Rate	12.00%	1.00%	11.71%	10.76%
Allocation of Employer Contribution Rate				
15. Employer Contribution Rate				
a) Normal	-0.26%	3.69%	-0.17%	1.03%
b) Unfunded Actuarial Accrued Liability	<u>14.26%</u>	<u>10.31%</u>	<u>14.17%</u>	<u>11.97%</u>
c) Total Pension	14.00%	14.00%	14.00%	13.00%
d) Health Care	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>1.00%</u>
e) Total	14.00%	14.00%	14.00%	14.00%

Note: numbers may not add due to rounding.

<sup>&</sup>lt;sup>1</sup> The 2013 and 2014 funding periods reflect increases in employer and member contribution rates effective in future years.



#### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active members, retirees, and beneficiaries. This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the population has changed over past valuations can be seen in this chart.

#### CHART 1

Member Population: 2005 – 2014

Year Ended June 30	Active Members*	Reemployed Retirees	Inactive Members Eligible for Allowances	Inactive Members Eligible for Refunds Only	Retirees and Beneficiaries	Ratio of Actives to Retirees and Beneficiaries
2005	176,692	19,033	18,148	120,176	115,395	1.53
2006	175,065	19,749	18,333	123,698	119,184	1.47
2007	174,110	20,631	18,346	127,351	122,934	1.42
2008	173,327	21,467	18,300	123,259	126,506	1.37
2009	174,807	22,189	17,980	133,561	129,659	1.35
2010	175,842	23,651	17,377	135,721	133,103	1.32
2011	177,897	23,156	16,990	134,301	138,088	1.29
2012	173,044	23,879	17,325	134,974	143,256	1.21
2013	169,945	24,228	17,081	136,105	149,221	1.14
2014	169,295	25,156	17,036	134,844	152,208	1.11

\*Excludes defined contribution only members.

#### **Active Members**

Plan costs are affected by the age, years of service, and compensation of active members. In this year's valuation, there were 169,295 active members with an average age of 43.4 and 12.0 average years of service. The 169,945 active members in the prior valuation had an average age of 43.5 and 12.0 average years of service.

#### **Inactive Members**

In this year's valuation, there were 17,036 participants with a vested right to a deferred benefit.

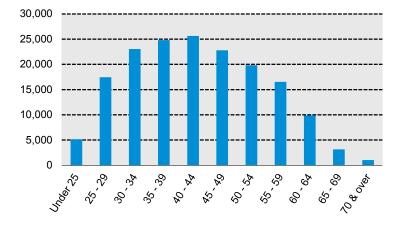
In addition, there were 134,844 participants entitled to a return of their employee contributions

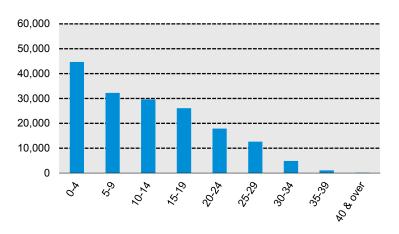
#### CHART 2

Distribution of Active Participants by Age as of June 30, 2014<sup> $\star$ </sup>



Distribution of Active Participants by Years of Service as of June 30, 2014 $^{*}$ 





\* Excludes defined contribution only members.



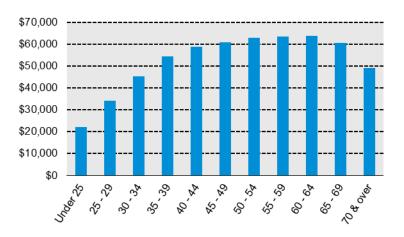
# Distribution of Active Members by Age and Average Compensation\*

In this year's valuation, there were 169,295 active members with an average compensation of \$54,038. The 169,945 active members in the prior valuation had an average compensation of \$53,653.

These charts show a distribution of active members by age and by average compensation.

#### CHART 4

Distribution of Active Members by Age and Average Compensation as of June 30, 2014



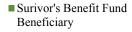
\* Excludes defined contribution only members.



#### **Retirees and Beneficiaries**

As of June 30, 2014, 136,346 retirees and 15,862 beneficiaries were receiving total annual benefits of \$6,397,535,267. For comparison, in the previous valuation, there were 133,687 retirees and 15,534 beneficiaries receiving annual benefits of \$6,190,182,158.

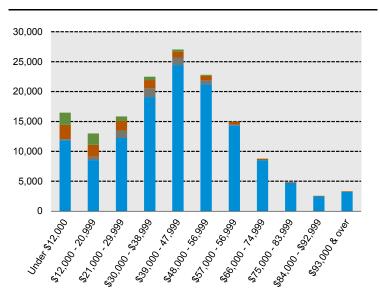
#### These charts show the distribution of the current retirees and beneficiaries based on their age and annual amount, by type of pension.



- Beneficiary Receiving Optional Allowance
- Disabled Retiree
- Retiree

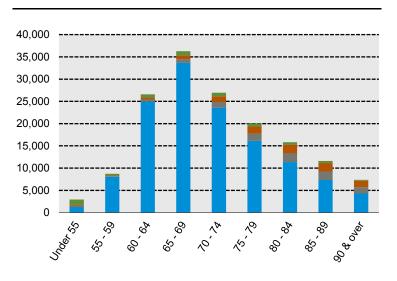
#### CHART 5

Distribution of Retirees and Beneficiaries by Type and by Annual Amount as of June 30, 2014



#### CHART 6

Distribution of Retirees and Beneficiaries by Type and Age as of June 30, 2014





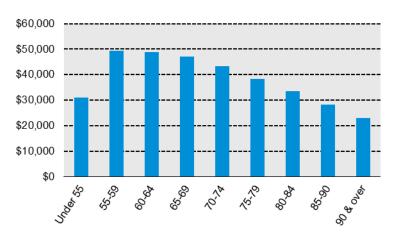
#### Distribution of Retirees and Beneficiaries by Age and Average Monthly Benefit Amount

As of June 30, 2014, the average annual benefit amount among 136,346 retirees and 15,862 beneficiaries was \$42,032. In the previous valuation, the average annual benefit amount among 133,687 retirees and 15,534 beneficiaries was \$41,483.

These charts show a distribution of retirees and beneficiaries by age and by annual amount.

#### CHART 7

Distribution of Retirees and Beneficiaries by Age and Average Annual Amount as of June 30, 2014





#### **B.** FINANCIAL INFORMATION

It is desirable to have level and predictable plan costs from one year to the next. For this reason, STRS Ohio's Board utilizes an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

# This chart shows the determination of the actuarial value of assets as of the valuation date.

#### CHART 8

Determination of Actuarial Value of Assets for Years Ended June 30, 2014 and June 30, 2013 (\$ in thousands)

			20	)14	1	2013
1.	1. Market value of Defined Benefit and Combined Plan assets			\$70,988,658		\$64,705,982
2.	Calculation of unrecognized return*	Original Amount**	% Not <u>Recognized</u>		% Not <u>Recognized</u>	
	(a) Year ended June 30, 2014	\$5,718,392	75%	\$4,288,794		
	(b) Year ended June 30, 2013	3,511,028	50%	1,755,514	75%	\$2,633,271
	(c) Year ended June 30, 2012	-3,431,549	25%	-857,887	50%	-1,715,775
	(d) Year ended June 30, 2011	7,537,854	0%	<u>0</u>	25%	1,884,464
	(e) Year ended June 30, 2010	2,315,228			0%	<u>0</u>
	(f) Total unrecognized return			\$5,186,421		\$2,801,960
3.	Actuarial value of Defined Benefit Plan assets:	(1) - (2f)		\$65,802,237		<u>\$61,904,022</u>
4.	Adjustment for 91% /109% corridor			0		0
5.	Adjusted actuarial value of Defined Benefit Pla	n assets		65,802,237		61,904,022
6.	Defined Contribution Plan assets			854,938		686,528
7.	Early Retirement Incentive receivable			<u>0</u>		<u>236</u>
8.	Total Actuarial Value of Assets: $(5) + (6) + (7)$			<u>\$66,657,175</u>		<u>\$62,590,786</u>
9	Market Value of Assets - total fund excluding h	nealth care assets		\$71,843,596		\$65,392,510
10.	Actuarial value as a percent of market value: (8	) ÷ (9)		<u>92.8%</u>		<u>95.7%</u>

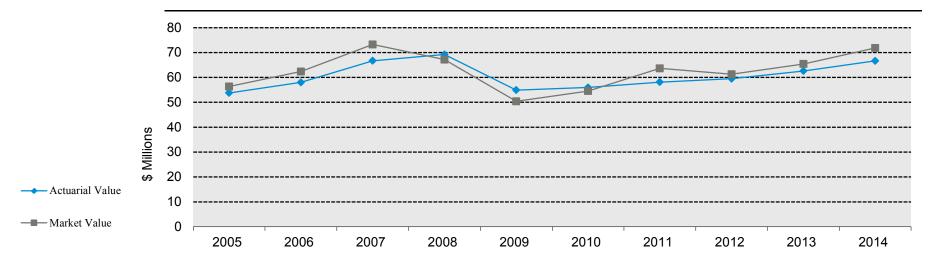
\* Recognition at 25% per year over 4 years

\*\*Actual market return minus expected return on actuarial value of assets

Both the actuarial value and market value of assets are a representation of the STRS Ohio's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because STRS Ohio's liabilities are compared to these assets to determine what portion, if any, remains unfunded.



Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2005 - 2014



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#### **Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent expected long-term rate of return, based on the STRS Ohio's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.75%. The actual rate of return on an actuarial basis for the Plan Year ended June 30, 2014, was 13.32%. Since the actual return for the year was greater than the assumed return, the STRS Ohio experienced an actuarial gain during the year ended June 30, 2014, with regard to its investments.

This chart shows the portion of the gain due to investment experience.

#### CHART 10

Actuarial Value Investment Experience for the Year Ended June 30, 2014 (\$ in thousands)

1	Net investment income	\$7,973,573
1		
2	Average actuarial value of assets	59,866,343
3	Rate of return: $(1) \div (2)$	13.32%
4	Assumed rate of return	7.75%
5	Expected net investment income: (2) x (4)	\$4,639,642
6	Actuarial gain: $(1) - (5)$	<u>\$3,333,391</u>

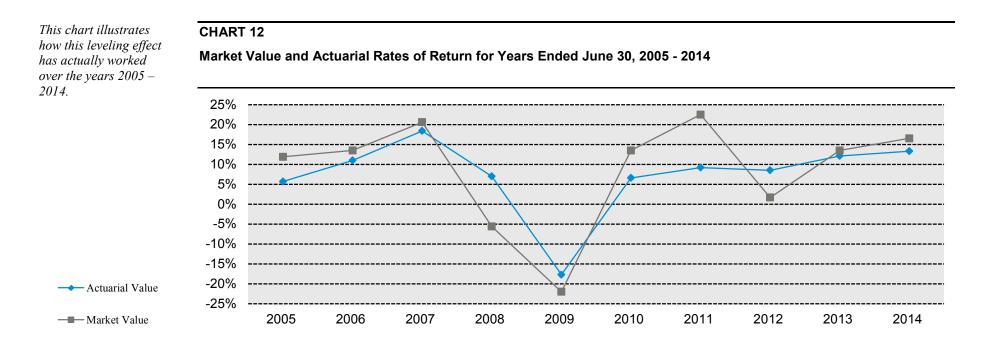
Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last twenty years, including fiveyear, ten-year, fifteen-year and twenty-year averages.

#### CHART 11 Investment Return

Year Ended June 30	Market Value	Actuarial Value
1995	16.6%	9.9%
1996	12.3	10.1
1997	16.8	12.7
1998	14.2	14.3
1999	12.5	13.4
2000	10.3	13.1
2001	-6.5	6.7
2002	-8.3	-7.8
2003	1.8	1.6
2004	17.2	9.4
2005	11.9	5.7
2006	13.5	11.0
2007	20.6	18.4
2008	-5.6	7.0
2009	-22.0	-17.7
2010	13.5	6.6
2011	22.5	9.2
2012	1.7	8.5
2013	13.5	12.1
2014	16.5	13.3
Average Returns		
Last 5 years:	13.3%	9.9%
Last 10 years:	7.7%	7.0%
Last 15 years:	5.9%	6.1%
Last 20 years:	8.0%	7.6%



The actuarial asset valuation method gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.



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#### **Cash Flow**

Cash flow is the difference between contributions and benefit payments, refunds, and expenses. Negative cash flow indicates that the payments made from the System exceed contributions made to the System. The scheduled increases in the employer and member contribution rates will improve the cash flow percentage, assuming all other experience emerges as expected.

#### CHART 13

#### History of Cash Flow (\$ in thousands)

		[	Disbursements	s or Expenditure	s			
Year Ending June 30,	Contributions <sup>1</sup>	Benefit Payments	Refunds	Administrative Expenses	Total Disbursement	Net Cash Flow for the Year <sup>2</sup>	Market Value of Assets	Net Cash Flow as Percent of Market Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2005	2,266,942	(3,383,605)	(114,550)	(59,826)	(3,557,982)	(1,291,039)	56,340,712	-2.3%
2006	2,314,277	(3,684,385)	(127,208)	(63,889)	(3,875,482)	(1,561,206)	62,350,079	-2.5%
2007	2,354,257	(4,007,705)	(134,995)	(60,360)	(4,203,059)	(1,848,802)	73,232,205	-2.5%
2008	2,411,593	(4,338,618)	(142,918)	(59,707)	(4,541,242)	(2,129,649)	67,144,639	-3.2%
2009	2,481,032	(4,613,751)	(129,290)	(58,935)	(4,801,976)	(2,320,944)	50,392,731	-4.6%
2010	2,537,505	(4,900,418)	(126,981)	(59,284)	(5,086,684)	(2,549,179)	54,524,225	-4.7%
2011	2,566,848	(5,244,407)	(166,020)	(58,701)	(5,469,128)	(2,902,280)	63,635,912	-4.6%
2012	2,511,482	(5,741,042)	(183,768)	(58,760)	(5,983,569)	(3,472,088)	61,261,323	-5.7%
2013	2,491,122	(6,152,335)	(206,491)	(59,450)	(6,418,277)	(3,927,155)	65,392,510	-6.0%
2014	2,702,249	(6,504,675)	(220,341)	(60,991)	(6,786,007)	(4,083,758)	71,843,596	-5.7%

<sup>1</sup>Column (2) includes employee and employer contributions, as well as any purchased service credits during the year.

 $^{2}$  Column (7) = Column (2) + Column (6).

#### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include, but are not limited to:

- > payroll growth different than assumed,
- > salary increases different than assumed,
- > retirement experience (earlier or later than expected),
- > the extent of turnover among the participants,
- > mortality (more or fewer deaths than expected), and
- > new entrants.

The net loss from this other experience for the year ended June 30, 2014, amounted to \$156 million, which is approximately 0.2% of the actuarial accrued liability.

#### CHART 14

elements of experience gain/(loss) for the most recent year.

This chart shows

Experience Due to Changes in Demographics for Year Ended June 30, 2014 (\$ in thousands)

1	Describer of	¢51 750
1.	Payroll growth	-\$51,750
2.	Salary increases	413,619
3.	Retirement and other separation experience	-297,486
4.	Plan reselection	-3,808
5.	Retirees mortality	-185,841
6.	New entrants	<u>-30,296</u>
7.	Total	-\$155,562

#### C. DEVELOPMENT OF ACTUARIALLY DETERMINED CONTRIBUTION

The amount of Actuarially Determined Contribution is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the Actuarially Determined Contribution of 13.69% of payroll. The current approach for amortizing the unfunded actuarial accrued liability is based on a 30-year open period and is determined as a level percentage of payroll. This approach results in negative amortization and the UAAL is expected to grow indefinitely if contributions were to be made on this basis. We recommend that the Board establish an appropriate funding policy, which outlines the basis of an actuarially determined contribution rate that is expected to fully fund the UAAL over time. The actuarially determined rate will be compared to the statutory contribution rate as one measure of contribution adequacy.

#### CHART 15

#### **Actuarially Determined Contribution (\$ in thousands)**

	Year Beginning July 1		
	2014	2013	
1. Total normal cost rate	11.54%	11.79%	
2. Less: member contribution rate	<u>-11.71</u>	<u>-10.76</u>	
3. Employer normal cost rate	(0.17%)	1.03%	
4. 30-year amortization of unfunded actuarial accrued liability	<u>13.86</u>	<u>14.42</u>	
5. Actuarially Determined Contribution: (3) + (4)	13.69%	15.45%	
6. Employer Contribution	14.00	13.00	
7. Contribution Sufficiency/(Deficiency): (6) - (5)	0.31%	(2.45%)	

#### D. 10 YEAR HISTORY OF PRINCIPAL FINANCIAL RESULTS

#### Net Gain (Loss)

The results of the valuation as of July 1, 2014, determine the net gain or loss for the year ended June 30, 2014. The net gain due to the plan experience during the prior year is \$3,178 million.

This chart shows a
10-year history of the
net gains or losses.

Chart 16							
Ten-Year History of Gains or (Losses) (\$ in millions)							
Fiscal Year Ended June 30 Net Gain or (Loss)							
2014	\$3,178						
2013	2,092						
2012	(3,982)						
2011	181						
2010	(279)						
2009	(17,801)						
2008	(894)						
2007	5,234						
2006	958						
2005	(2,313)						

#### **Funding Period**

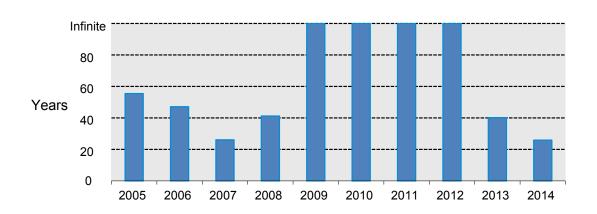
The funding period is the number of years required to liquidate the unfunded actuarial accrued liability.

The following table shows a ten-year history of the funding period along with the member and employer contribution rates:

		Contribu	ition Rate
Valuation as of July 1	Funding Period Years	Member	Employer
2014	29.5	12.00%	14.00%
2013	40.2	11.00%	14.00%
2012	Infinite	10.00%	14.00%
2011	Infinite 10.00%		14.00%
2010	Infinite	10.00%	14.00%
2009	Infinite 10.00%		14.00%
2008	41.2	10.00%	14.00%
2007	26.1	10.00%	14.00%
2006	47.2	10.00%	14.00%
2005	55.5 10.00%		14.00%

#### CHART 17

Funding Period, Years Ended June 30



★ Segal Consulting

#### **Funded Ratio**

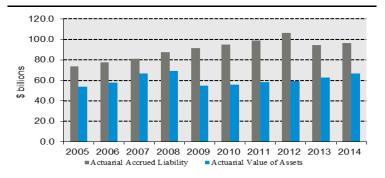
The System's funded status is measured by comparing the actuarial value of assets with the actuarial accrued liability. The actuarial accrued liability is the present value of benefits accumulated to date under the System's funding method and reflects future pay increases for active employees.

On this basis, the System's funded ratio is 69.3% as of July 1, 2014. The funded ratio is based on the actuarial value of assets of \$62.6 billion and an actuarial accrued liability of \$94.4 billion.

Valuation as of July 1	Actuarial Accrued Liability (\$ in millions)	Actuarial Value of Assets (\$ in millions)	Unfunded Actuarial Accrued Liability (\$ in millions)	Funded Ratio
2014	\$96,167.1	\$66,657.2	\$29,509.9	69.3%
2013	94,366.7	62,590.8	31,775.9	66.3%
2012	106,301.8	59,489.5	46,812.3	56.0%
2011	98,766.2	58,110.5	40,655.7	58.8%
2010	94,720.7	55,946.3	38,774.4	59.1%
2009	91,441.0	54,902.9	36,538.1	60.0%
2008	87,432.3	69,198.0	18,234.3	79.1%
2007	81,126.6	66,671.5	14,455.1	82.2%
2006	77,371.0	58,008.0	19,363.0	75.0%
2005	73,817.1	53,765.6	20,051.5	72.8%

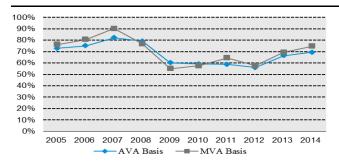
#### CHART 18

Actuarial Accrued Liability and Actuarial Value of Assets, Years Ended June 30



#### CHART 19

Funded Ratio, Years Ended June 30



#### **MEMBERSHIP DATA**<sup>\*</sup>

Membership data was provided on electronic files sent by the STRS Ohio staff. Data for active members includes gender, birth date, service, salary for the prior fiscal year, and accumulated contributions. Data for inactive members was similar, but also includes account balances. For retired members, data includes status (service retiree, disabled retiree or beneficiary), gender, birth date, pension amount, date of retirement, form of payment, and beneficiary gender and birth date if applicable.

While not verifying the correctness of the data at the source, we performed various tests to ensure the internal consistency of the data and its overall reasonableness.

Membership statistics are summarized in Exhibit A. Exhibits B-1, B-2 and B-3 summarize the age/service distribution of active members of the Defined Benefit and Combined Plans. Exhibits C-1 and C-2 show the distribution of retirees by gender, age and by benefit amount. Exhibit D summarizes 10-year history of membership data. Exhibit E shows 10-year payout projection of benefit payments. Exhibit F shows a reconciliation of the member data from last year's valuation to this year's valuation.

The number of active members decreased by 0.38% since last year, from 169,295 to 169,945. Note that normally the actual number of members employed during the year will be somewhat higher than the valuation count.

Total payroll decreased 0.86% since last year. For all comparative purposes, payroll is the amount supplied by the STRS Ohio staff.

Average salary increased by 0.7%, from \$53,653 to \$54,038. This includes the impact of replacing more highly paid members who retire with new teachers. The average increase in salary for the 150,492 continuing members (members active in both this valuation and the preceding valuation) was 3.8%.

The average age of active members decreased from 43.5 years to 43.4 years, and their average service remained at 12.0 years.

<sup>\*</sup> Excludes defined contribution only members.



The table below shows additional information about the active membership this year and last year. Grandfathered members are those who are eligible to retire as of July 1, 2015.

Active Statistics						
	July 1, 2014					
Plan Eligibility*						
a. Grandfathered	23,556					
b. Non-grandfathered	145,739					
c. Total	169,295					
Benefit Eligibility						
a. Non-Vested	46,505					
b. Vested, Not Eligible for Retirement	103,252					
c. Service Retirement	19,538					
d. Total	169,295					

\* Number of Grandfathered and Non-grandfathered members is estimated

based on the June 30, 2014, census data and eligibility requirements specified above.

In addition, this table shows the number of members who are non-vested, those who are vested but not eligible for retirement, and those eligible for a service retirement benefit. As of the valuation date, 19,538 members were eligible for either reduced or unreduced retirement.

#### EXHIBIT A

Summary of Membership Data as of July 1, 2014 (\$ in thousands)

	Male	Female	Total
1. Defined Benefit Plan Active Members			
Number of Members	47,280	116,748	164,028
Annual Salaries (for period ending June 30, 2014)	\$2,762,322	\$6,128,826	\$8,891,148
Average Age	44.23	43.18	43.49
Average Service	12.07	12.19	12.15
2. Combined Plan Active Members			
Number of Members	1,141	4,126	5,267
Annual Salaries (for period ending June 30, 2014)	\$61,201	\$196,090	\$257,290
Average Age	42.56	40.22	40.73
Average Service	7.13	7.61	7.51
3. Total Defined Benefit and Combined Plan Active Membe	rs		
Number of Members	48,421	120,874	169,295
Annual Salaries (for period ending June 30, 2014)	\$2,823,523	\$6,324,915	\$9,148,438
Average Age	44.19	43.08	43.40
Average Service	11.95	12.03	12.01
4. Defined Benefit Inactive Members			
Eligible for Allowances	4,090	12,549	16,639
Eligible for Refunds Only	48,711	84,869	133,580
Total	52,081	97,418	150,219
5. Combined Benefit Inactive Members			
Eligible for Allowances	70	327	397
Eligible for Refunds Only	318	946	1,264
Total	388	1,273	1,661
6. Total Inactive Members			
Eligible for Allowances	4,160	12,876	17,036
Eligible for Refunds Only	49,029	85,815	134,844
Total	53,189	98,691	151,880

#### EXHIBIT A

Summary of Membership Data as of July 1, 2014 (continued) (\$ in thousands)

	Male	Female	Total	
7. Retirees				
Number of Members	45,281	85,240	130,521	
Annual Allowance	\$2,310,419	\$3,478,772	\$5,789,191	
Average Allowance (in dollars)	\$51,024	\$40,812	\$44,354	
8. Disabled Retirees				
Number of Members	1,867	3,958	5,825	
Annual Allowance	\$75,012	\$136,966	\$211,978	
Average Allowance (in dollars)	\$40,178	\$34,605	\$36,391	
9. Beneficiaries Receiving Optional Allowances				
Number of Members	7,306	2,639	9,945	
Annual Allowance	\$225,356	\$51,407	\$276,763	
Average Allowance (in dollars)	\$30,845	\$19,480	\$27,829	
10. Survivor's Benefit Fund Beneficiaries				
Number of Members	3,024	2,893	5,917	
Annual Allowance	\$69,455	\$50,149	\$119,604	
Average Allowance (in dollars)	\$22,968	\$17,335	\$20,214	
11. Total Retirees and Beneficiaries				
Number of Members	57,478	94,730	152,208	
Annual Allowance	\$2,680,241	\$3,717,294	\$6,397,535	
Average Allowance (in dollars)	\$46,631	\$39,241	\$42,032	

#### EXHIBIT B-1 Active Membership Data as of July 1, 2014 – Number and Average Annual Salary

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	5,155	5,152	3								
	\$22,048	\$22,036	\$42,282								
25 - 29	17,455	12,593	4,862								
	\$33,991	\$29,842	\$44,739								
30 - 34	23,053	6,947	10,944	5,162							
	\$45,147	\$30,082	\$48,816	\$57,646							
35 - 39	24,801	4,831	4,556	10,443	4,970	1					
	\$54,382	\$28,581	\$49,937	\$61,541	\$68,491	\$68,125					
40 - 44	25,642	4,535	3,421	4,315	9,663	3,708					
	\$58,691	\$25,592	\$48,649	\$61,502	\$70,644	\$74,016					
45 - 49	22,785	3,558	2,904	3,130	3,994	6,417	2,779	3			
	\$60,782	\$22,841	\$46,937	\$60,710	\$70,308	\$75,194	\$76,907	\$85,090			
50 - 54	19,826	2,654	2,248	2,738	2,832	2,899	5,025	1,430			
	\$62,763	\$22,402	\$44,429	\$59,987	\$69,431	\$76,898	\$77,669	\$77,562			
55 - 59	16,539	2,086	1,656	2,165	2,736	2,705	2,579	2,138	474		
	\$63,315	\$20,257	\$40,056	\$58,095	\$67,732	\$75,895	\$82,440	\$80,521	\$78,967		
60 - 64	9,874	1,359	1,041	1,177	1,495	1,719	1,719	940	400	24	
	\$63,792	\$17,586	\$36,607	\$54,350	\$67,715	\$76,580	\$85,186	\$92,204	\$89,825	\$83,139	
65 & over	4,165	1,000	597	466	427	466	513	365	225	106	
	\$57,791	\$11,505	\$25,716	\$52,536	\$68,822	\$82,392	\$95,743	\$101,163	\$106,725	\$108,744	
Total	169,295	44,715	32,232	29,596	26,117	17,915	12,615	4,876	1,099	130	
	\$54,038	\$26,184	\$46,594	\$59,944	\$69,549	\$75,652	\$80,236	\$83,453	\$88,602	\$104,017	

**Defined Benefit and Combined Plans** 

				I	Defined Be	enefit Plan	l				
-	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	4,876	4,873	3								
	\$21,893	\$21,880	\$42,282								
25 - 29	16,738	12,071	4,667								
	\$33,909	\$29,715	\$44,755								
30 - 34	22,170	6,687	10,552	4,931							
	\$45,020	\$29,746	\$48,789	\$57,668							
35 - 39	23,924	4,632	4,376	10,087	4,828	1					
	\$54,317	\$28,005	\$49,866	\$61,515	\$68,552	\$68,125					
40 - 44	24,941	4,316	3,257	4,147	9,513	3,708					
	\$58,830	\$25,141	\$48,488	\$61,286	\$70,665	\$74,016					
45 - 49	22,175	3,383	2,740	2,948	3,905	6,417	2,779	3			
	\$60,966	\$22,180	\$46,684	\$60,276	\$70,363	\$75,194	\$76,907	\$85,090			
50 - 54	19,297	2,523	2,129	2,563	2,728	2,899	5,025	1,430			
	\$63,043	\$22,129	\$44,231	\$59,702	\$69,429	\$76,898	\$77,669	\$77,562			
55 - 59	16,123	2,008	1,558	2,021	2,640	2,705	2,579	2,138	474		
	\$63,572	\$20,015	\$39,467	\$57,934	\$67,692	\$75,895	\$82,440	\$80,521	\$78,967		
60 - 64	9,678	1,324	988	1,118	1,446	1,719	1,719	940	400	24	
	\$64,040	\$17,463	\$35,822	\$54,308	\$67,690	\$76,580	\$85,186	\$92,204	\$89,825	\$83,139	
65 & over	4,106	981	580	448	422	466	513	365	225	106	
	\$58,158	\$11,330	\$25,786	\$52,942	\$68,794	\$82,392	\$95,743	\$101,163	\$106,725	\$108,744	
Total	164,028	42,798	30,850	28,263	25,482	17,915	12,615	4,876	1,099	130	
	\$54,205	\$25,883	\$46,479	\$59,839	\$69,578	\$75,652	\$80,236	\$83,453	\$88,602	\$104,017	

#### SECTION 3: Supplemental Information for the State Teachers Retirement System of Ohio

## EXHIBIT B-2

Active Membership Data as of July 1, 2014 – Number and Average Annual Salary

					Combin	ed Plan					
	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	279	279									
	\$24,759	\$24,759									
25 - 29	717	522	195								
	\$35,915	\$32,761	\$44,356								
30 - 34	883	260	392	231							
	\$48,347	\$38,721	\$49,530	\$57,174							
35 - 39	877	199	180	356	142						
	\$56,162	\$41,982	\$51,670	\$62,273	\$66,409						
40 - 44	701	219	164	168	150						
	\$53,760	\$34,488	\$51,846	\$66,836	\$69,346						
45 - 49	610	175	164	182	89						
	\$54,091	\$35,610	\$51,167	\$67,746	\$67,899						
50 - 54	529	131	119	175	104						
	\$52,529	\$27,655	\$47,972	\$64,169	\$69,489						
55 - 59	416	78	98	144	96						
	\$53,389	\$26,496	\$49,424	\$60,349	\$68,847						
60 - 64	196	35	53	59	49						
	\$51,537	\$22,231	\$51,243	\$55,145	\$68,445						
65 & over	59	19	17	18	5						
	\$32,310	\$20,535	\$23,310	\$42,444	\$71,175						
Total	5,267	1,917	1,382	1,333	635						
	\$48,850	\$32,902	\$49,149	\$62,170	\$68,379						

#### EXHIBIT B-3

Active Membership Data as of July 1, 2014 – Number and Average Annual Salary



#### **EXHIBIT C-1**

Retiree and Beneficiary Membership Data as of July 1, 2014 -Number and Annual Retirement Allowance

		Annual Allowances as of July 1, 2014					
Group	Number	Basic	Cost-of-Living Increases	Total			
Superannuation Retirees							
Males	45,281	\$ 1,808,635,687	\$ 501,782,845	\$ 2,310,418,533			
Females	<u>85,240</u>	2,858,797,447	619,974,873	3,478,772,319			
Subtotal	130,521	4,667,433,135	1,121,757,719	5,789,190,852			
Beneficiaries Receiving Optional Allowances							
Males	7,306	143,627,176	81,728,490	225,355,666			
Females	2,639	36,731,781	14,675,067	51,406,849			
Subtotal	9,945	180,358,957	96,403,558	276,762,515			
Survivors' Benefit Fund Beneficiaries							
Males	3,024	47,774,932	21,680,137	69,455,069			
Females	2,893	37,246,759	12,902,376	50,149,135			
Subtotal	5,917	85,021,691	34,582,513	119,604,204			
Disability Retirees							
Males	1,867	52,577,375	22,434,645	75,012,019			
Females	3,958	101,066,786	35,898,890	136,965,676			
Subtotal	5,825	153,644,161	58,333,535	211,977,696			
Grand Total	<u>152,208</u>	<u>\$ 5,086,457,943</u>	<u>\$ 1,311,077,324</u>	\$ <u>6,397,535,267</u>			

#### EXHIBIT C-2

Retiree And Beneficiary Membership Data as of July 1, 2014 -Number And Annual Retirement Allowance

Age Last Birthday	Number	Annual Allowance		Average Annual Allowance	
Retired Annuitants					
Under 60	10,780	\$	556,519,880	\$	51,625
60 - 64	26,985		1,351,671,726		50,090
65 - 69	32,622		1,567,394,523		48,047
70 - 74	22,835		1,007,801,723		44,134
75 - 79	15,690		620,719,361		39,561
Over 79	21,609		685,083,641		31,704
Total	130,521	\$	5,789,190,853	\$	44,354
<b>Beneficiaries Receiving Optional Allowances</b>	,		. , ,		, -
Under 60	449	\$	11,337,510	\$	25,251
60 - 64	506		17,716,957		35,014
65 - 69	903		32,481,603		35,971
70 - 74	1,312		44,824,719		34,165
75 - 79	1,689		49,741,068		29,450
Over 79	5,086		120,660,657		23,724
Total	9,945	\$	276,762,515	\$	27,829
Survivors' Benefit Fund Beneficiaries	·				
Under 60	1,556	\$	22,881,374	\$	14,705
60 - 64	753		18,733,756		24,879
65 - 69	909		22,354,394		24,592
70 - 74	764		18,199,836		23,822
75 - 79	695		14,544,268		20,927
Over 79	1,240	_	22,890,575		18,460
Total	5,917	\$	119,604,204	\$	20,214
Disability Retirees					
Under 60	1,448	\$	54,141,013	\$	37,390
60 - 64	1,223		46,800,842		38,299
65 - 69	1,196		47,526,452		39,738
70 - 74	807		29,594,826		36,673
75 - 79	540		17,324,657		32,083
Over 79	612	_	16,589,906		27,108
Total	5,825	\$	211,977,696	\$	36,391
Grand Total	152,208	\$	6,397,535,267	\$	42,032



#### EXHIBIT D 10-Year History of Membership Data

Active Members							
Valuation as of July 1	Number of Active Members	Percentage Change in Membership	Total Annual Payroll (for Period Ending June 30 <sup>th</sup> )	Average Annual Pay	Percentage Increase in Average Pay		
2014	169,295	(0.4)%	\$ 9,148,438,257	\$ 54,038	0.7%		
2013	169,945	(1.8)%	9,118,035,483	53,653	(0.5)%		
2012	173,044	(2.7)%	9,330,845,312	53,922	(0.2)%		
2011	177,897	1.2%	9,609,723,360	54,018	(1.4)%		
2010	175,842	0.6%	9,633,354,504	54,784	0.8%		
2009	174,807	0.9%	9,502,701,044	54,361	2.6%		
2008	173,327	(0.4)%	9,187,562,138	53,007	2.0%		
2007	174,110	(0.5)%	9,051,842,381	51,989	2.3%		
2006	175,065	(1.0)%	8,894,400,155	50,806	2.5%		
2005	176,692	(1.0)%	8,757,199,911	49,562	2.6%		
		Retirees and	Beneficiaries				
Valuation as of in Number of		Percentage Change in Number of Recipients	Annual Chang		in Average		
2014	152,208	2.0%	\$ 6,397,535,267	Allowances 3.3%	\$ 42,032		
2014	149,221	4.2%	6,190,182,158	6.4%	41,483		
2013	143,256	3.7%	5,815,407,270	7.8%	40,594		
2012	138,088	3.7%	5,393,372,046	8.8%	39,057		
2010	133,103	2.7%	4,957,960,446	5.3%	37,249		
2009	129,659	2.5%	4,706,964,923	6.5%	36,303		
2008	126,506	2.9%	4,418,799,899	7.1%	34,930		
2007	122,934	3.1%	4,124,657,496	7.7%	33,552		
2006	119,184	3.3%	3,828,395,485	8.1%	32,121		
2005	115,395	3.2%	3,540,240,508	8.2%	30,679		



#### EXHIBIT E 10-Year Payout Projection of Benefit Payments (\$ in thousands)

Fiscal Year	Projected Annual Benefits During the Year		
2015	\$6,560,985		
2016	6,746,103		
2017	6,897,508		
2018	7,021,745		
2019	7,153,972		
2020	7,281,962		
2021	7,416,490		
2022	7,536,005		
2023	7,657,139		
2024	7,772,017		



#### EXHIBIT F

#### Reconciliation of Member Data by Status for the Year Ending June 30, 2014\*

	Active Members	Reemployed Retirees	Inactive Members Eligible for Allowances	Inactive Members Eligible for Refunds Only	Retirees	Beneficiaries	Total
A. Number as of June 30, 2013	169,945	24,228	17,081	136,105	133,687	15,534	496,580
B. Additions and new hires	12,549	4,096	0	0	16	0	16,661
C. Participant movement							
1. Retirement	-4,900	33	-601	-82	5,550	0	0
2. Died with beneficiary	-41	0	-5	-3	-901	950	0
3. Died without beneficiary	0	0	0	0	-1,930	-847	-2,777
4. Inactive member eligible for allowance	-2,653	0	2,653	0	0	0	0
5. Inactive member eligible for refunds only	-9,954	0	0	9,954	0	0	0
6. Refunds	-1,792	-3,201	-1,037	-8,871	0	0	-14,901
7. Rehired as active	6,160	0	-1,101	-5,059	0	0	0
8. Plan reselection	-23	0	0	0	0	0	-23
9. Expired benefits	0	0	0	0	0	0	0
D. Data adjustments	<u>4</u>	<u>0</u>	<u>46</u>	<u>2,800</u>	<u>-76</u>	225	<u>2,999</u>
E. Number as of June 30, 2014	169,295	25,156	17,036	134,844	136,346	15,862	498,539

\* Excludes defined contribution members only



## EXHIBIT G

#### Statement of Change in Plan Net Assets for Year Ended June 30, 2014 (\$ in thousands)

		As of June 30	
	Defined Benefit and Combined Plans	Defined Contribution Plan	Total
A. Assets available at June 30, 2013	\$64,705,982	\$686,528	\$65,392,510
B. Revenue for the year			
1. Contributions			
Member	\$1,134,899	\$58,909	\$1,193,808
Employer	1,324,448	29,083	\$1,353,531
Transfers from Defined Contribution Plan	14,033	(14,033)	\$0
Retirement Incentive	693	-	\$693
Other Retirement systems	154,217	<u> </u>	<u>154,217</u>
Total	\$2,628,290	\$73,959	\$2,702,249
2. Investment Income			
Net appreciation (depreciation) in fair value of investments	\$9,199,347	\$116,955	\$9,316,302
Interest, dividends, and other income	1,410,252	79	\$1,410,331
Investment expenses	(191,429)	(360)	<u>(\$191,789)</u>
Total	\$10,418,170	\$116,674	\$10,534,844
C. Expenditures for the year			
Benefits	\$6,504,676	\$ -	\$6,504,676
Refunds to members who have withdrawn	198,972	21,368	\$220,340
Administrative expenses	60,136	855	\$60,991
Total deductions	\$6,763,784	\$22,223	<u>\$6,786,007</u>
Net increase (decrease)	\$6,282,676	\$168,410	\$6,451,086
D. Market value of assets as of June 30, 2014	\$70,988,658	\$854,938	\$71,843,596
E. Estimated rate of return (as determined by Segal)	16.53%	16.25%	16.53%



#### EXHIBIT H

**Development of Unfunded Actuarial Accrued Liability (\$ in thousands)** 

			Year Ending June 30			
			2014	201	13	
1.	Unfunded actuarial accrued liability at beginning of year		\$31,775,907		\$46,812,333	
2.	Normal cost at beginning of year		1,094,986		1,494,081	
3.	Total contributions <sup>*</sup>		2,628,290		2,425,502	
4.	Interest on:					
	(a) Unfunded actuarial accrued liability and normal cost	\$2,547,495		\$3,743,747		
	(b) Total contributions	101,846		93,988		
	(c) Total interest: (4a) – (4b)		<u>2,445,649</u>		<u>3,649,759</u>	
5.	Expected unfunded actuarial accrued liability: (1) + (2) - (3) + (4c)		\$32,688,252		\$49,530,671	
6.	Changes due to (gain)/loss from:					
	(a) Investments	-\$3,333,931		-\$2,483,140		
	(b) Demographics	<u>155,561</u>		390,642		
	(c) Total changes due to (gain)/loss: (6a) + (6b)		-3,178,370		-2,092,498	
7.	Change due to plan amendments		0		-15,662,266	
8.	Change in actuarial assumptions		0		0	
9.	Unfunded actuarial accrued liability at end of year: (5) + (6c) + (7) + (8)		<u>\$29,509,882</u>		<u>\$31,775,907</u>	

\* Excluding contribution to the Defined Contribution Plan.



#### EXHIBIT I

## **Definitions of Pension Terms**

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability For Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability For Pensioners:	The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the Actuarially Defined Contribution (ADC).
Actuarial Gain or Actuarial 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. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., STRS Ohio's assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

Actuarially Equivalent:	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	<ul> <li>The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:</li> <li>a. Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)</li> <li>b. Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and</li> <li>c. Discounted according to an assumed rate (or rates) of return to reflect the time value of money.</li> </ul>
Actuarial Present Value of Future	
Plan Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Defined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial Value of Assets:	The value of the System's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.

Actuarially Determined:	actuar	s that have been determined utilizing the principles of actuarial science. An ally determined value is derived by application of the appropriate actuarial ptions to specified values determined by provisions of the law.
Amortization Method:	used a the Ar Presen Amort Presen stream	hod for determining the Amortization Payment. The most common methods re level dollar and level percentage of payroll. Under the Level Dollar method, nortization Payment is one of a stream of payments, all equal, whose Actuarial t Value is equal to the UAAL. Under the Level Percentage of Pay method, the ization Payment is one of a stream of increasing payments, whose Actuarial t Value is equal to the UAAL. Under the Level Percentage of Pay method, the of payments increases at the assumed rate at which total covered payroll of all members will increase.
Amortization Payment:		ortion of the pension plan contribution, or ADC, that is designed to pay interest to amortize the Unfunded Actuarial Accrued Liability.
Actuarially Determined Contribution (ADC):	The e amou	employer's periodic actuarially determined contributions, expressed as a dollar nt or a percentage of covered plan compensation, determined under GASB. The consists of the Employer Normal Cost and the Amortization Payment.
Assumptions or Actuarial		
Assumptions:	The es	timates on which the cost of the System is calculated including:
	(a)	<u>Investment return</u> - the rate of investment yield that the System will earn over the long-term future;
	(b)	Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates;
	(c)	Retirement rates - the rate or probability of retirement at a given age;
	(d)	<u>Turnover rates</u> - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;
	(e)	Salary increase rates - the rates of salary increase due to inflation and productivity growth



<b>Closed Amortization Period:</b>	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree- beneficiary) changes, that is: death, retirement, disability, or termination.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
Funded Ratio:	The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.
Funding Period or Amortization	
Period:	The term "Funding Period" is used in two ways. First, it is the period used in calculating the Amortization Payment as a component of the ARC. Second, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.



SECTION 3:	Supplementary Information for the S	tate Teachers Retirement System of Ohio
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GASB:	Governmental Accounting Standards Board.
GASB 67 and GASB 68:	Governmental Accounting Standards Board Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment Return:	The rate of earnings of the System from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the System. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Margin:	The difference, whether positive or negative, between the statutory employer contribution rate and the Actuarially Defined Contribution (ADC) as defined by GASB.
Net Pension Liability:	The Net Pension Liability is equal to Total Pension Liability minus Plan Fiduciary Net Position.
Normal Cost:	That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability, or retirement.

<b>Open Amortization Period:</b>	A specific number of years that remains the same each year. The amortization period is set at 30 years for the current valuation and thereafter.
Plan Fiduciary Net Position:	Market value of assets.
Total Pension Liability:	The actuarial accrued liability based on the blended discount rate as described in GASB 67/68.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.



## EXHIBIT I

Schedule of Employer Contribution (\$ in thousands)

Fiscal Year ended June 30	Actuarially Determined Contribution*	Percentage Contributed
2014	\$ 1,489,734	89%
2013	\$ 2,910,537	46%
2012	\$ 3,248,651	41%
2011	\$ 2,715,523	51%
2010	\$ 2,623,624	52%
2009	\$ 1,502,240	89%

\*Prior to FY 2014, the ADC is the same as the GASB ARC determined under GASB 25.

The information presented above was determined as part of the actuarial valuation as of one year prior to the dates indicated (e.g., the contribution determined by the valuation completed as of July 1, 2013, was contributed in the fiscal year ending June 30, 2014).



## EXHIBIT I (continued)

#### Schedule of Employer Contributions (\$ in thousands)

Contributions in Relation to the Actuarially Actuarially Determined Determined Fiscal Year Contributions Contributions		Contribution Deficiency (Excess)	Actual Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll	
2013	\$2,910,537	\$1,357,889	\$1,552,648	\$10,765,635	12.61%
2014	1,489,734	1,353,531	136,203	10,725,329	12.62%



## EXHIBIT II

## Schedule of Funding Progress (\$ in thousands)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Unfunded Actuarial			
	Actuarial	Actuarial	Accrued Liability	Funded Ratio		UAAL as a
Valuation Date	(AVA)	Accrued Liability (AAL)	(UAAL) (3) – (2)	(2) / (3)	Covered Payroll	% of Payroll (4) / (6)
07/01/2014	\$66,657,175	\$96,167,057	\$29,509,882	69.3%	\$10,725,329	275%
07/01/2013	62,590,786	94,366,694	31,775,907	66.3%	10,765,635	295%
07/01/2012	59,489,508	106,301,841	46,812,333	56.0%	10,879,075	430%
07/01/2011	58,110,495	98,766,204	40,655,709	58.8%	11,097,598	366%
07/01/2010	55,946,259	94,720,669	38,774,410	59.1%	11,057,260	351%
07/01/2009	54,902,859	91,440,955	36,538,096	60.0%	10,800,817	338%

Note: numbers may not add due to rounding.



## EXHIBIT III Solvency Test

	Actu	uarial Accrued Liabili	ty for:			of Actuarial A Liability by Valuation	
Valuation as of July 1	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Member (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
2014	\$ 11,477,457,258	\$ 69,776,258,511	\$ 14,913,341,335	\$ 66,657,175,329	100%	79%	0%
2013	10,962,886,085	68,075,440,331	15,328,367,303	62,590,786,268	100%	76%	0%
2012	10,985,246,152	68,111,174,550	27,205,420,328	59,489,507,736	100%	71%	0%
2011	10,907,610,852	62,441,600,645	25,416,992,764	58,110,495,261	100%	76%	0%
2010	10,641,166,707	57,754,654,376	26,324,848,105	55,946,259,276	100%	78%	0%
2009	10,295,816,001	54,909,045,630	26,236,093,324	54,902,858,958	100%	81%	0%
2008	9,737,925,927	51,874,103,109	25,820,318,938	69,198,008,279	100%	100%	29%
2007	9,563,124,339	47,526,142,413	24,037,374,773	66,671,511,174	100%	100%	40%
2006	9,284,075,626	44,219,489,046	23,867,458,920	58,008,049,908	100%	100%	19%
2005	8,940,970,871	40,937,540,065	23,938,603,024	53,765,569,817	100%	100%	16%

<sup>\*</sup> Excludes health care assets. Years prior to 2008 included the health care assets in prior disclosure, but have been restated to exclude these assets.



et Pension Liability						
ne components of the net pension liability:	June 30, 2014	June 30, 2013				
Total pension liability	\$96,167,057,104	\$94,366,693,720				
Plan fiduciary net position	<u>(71,843,596,331)</u>	(65,392,746,348)				
Net pension liability	\$24,323,460,773	\$28,973,947,372				
Plan fiduciary net position as a percentage of the total pension liability	74.7%	69.3%				

*Plan provisions*. The plan provisions used in the measurement of the net pension liability are the same as those used in the actuarial valuation as of July 1, 2014.

*Actuarial assumptions*. The total pension liability was determined by an actuarial valuation as of July 1, 2014, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	12.25% at age 20 to 2.75% at age 70
Investment rate of return	7.75%, net of investment expenses
Cost-of-living adjustments	2% Simple applied as follows: for members retiring before August 1,
	2013, 2% per year; for members retiring August 1, 2013 or later, the
	2% COLA is paid on the fifth anniversary of the retirement date.

For inactive members and retirees, mortality rates are the RP-2000 Combined Mortality Table (Projection 2022 – Scale AA). Males are set back two years through age 89 and no set back for age 90 and above. Females are set back four years through age 79, one year set back from age 80 through 89, and no set back from age 90 and above. For active members, mortality rates for males are the same as the male post-retirement mortality rates with the exception that pre-retirement mortality rates for male age 45 and older are 25% less than the male post-retirement mortality rates.



Mortality rates for females are the same as the female post-retirement rates with the exception that the pre-retirement mortality rates for females between age 50 and 57 are 25% less than the female post-retirement mortality rates, and the pre-retirement mortality rates for females age 58 and older are 50% less than the female post-retirement mortality rates.

The actuarial assumptions used were based on the results of an experience study dated July 1, 2012. Retirement rates for the Defined Benefit Plan were adopted effective July 1, 2013. They are the same as the assumptions used in the July 1, 2014 funding actuarial valuation.

*Discount rate:* The discount rate used to measure the total pension liability was 7.75% as of June 30, 2014. The projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at rates equal to those based on this July 1, 2014, Actuarial Valuation Report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included.

Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members as of June 30, 2014. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2014.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability as of June 30, 2014, calculated using the discount rate of 7.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.75%) or 1-percentage-point higher (8.75%) than the current rate:

	Current			
	1% Decrease (6.75%)	Discount Rate (7.75%)	1% Increase (8.75%)	
Net pension liability as of June 30, 2014	\$34,821,686,138	\$24,323,460,773	\$15,445,494,723	



## EXHIBIT V

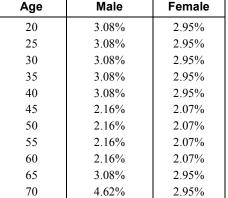
#### Schedules of Changes in Net Pension Liability

	2014
Total pension liability	
Service cost	\$ 1,094,986,408
Interest	7,137,685,820
Change of benefit terms	0
Differences between expected and actual experience	292,707,662
Changes of assumptions	0
Benefit payments, including refunds of employee contributions	(6,725,016,506)
Net change in total pension liability	\$1,800,363,384
Total pension liability – beginning	<u>94,366,693,720</u>
Total pension liability – ending (a)	<u>\$96,167,057,104</u>
Plan fiduciary net position	
Contributions – employer, including retirement incentive	\$ 1,508,441,842
Contributions – employee	1,193,807,555
Net investment income	10,534,607,802
Benefit payments, including refunds of employee contributions	(6,725,016,506)
Administrative expense	<u>(60,990,710)</u>
Net change in plan fiduciary net position	\$6,450,849,983
Plan fiduciary net position – beginning	65,392,746,348
Plan fiduciary net position – ending (b)	<u>\$71,843,596,331</u>
Net pension liability – ending (a) – (b)	\$24,323,460,773
Plan fiduciary net position as a percentage of the total pension liability	74.7%
Actual covered employee payroll	\$10,725,329,310
Plan net pension liability as percentage of covered employee payroll	226.8%



<b>Investment Return Rate:</b>	7.75% per an	num, compour	nded annually	y and net of all expenses.		
Mortality Rates:						
Post-Retirement:	RP-2000 Combined Mortality Table (Projection 2022 – Scale AA). Males are set back two years through age 89 and no set back for age 90 and above. Females are set back four years through age 79, one year set back from age 80 through 89, and no set back from age 90 and above. (Adopted effective July 1, 2012.)					
Pre-Retirement:	with the exce are 25% less females are th the pre-retired less than the the mortality rate	ption that pre- than the male he same as the ment mortality female post-re s for females a	retirement mo post-retireme female post-ret rates for fem tirement mort age 58 and ol	the male post-retirement mortality rates ortality rates for male age 45 and older ent mortality rates. Mortality rates for retirement rates with the exception that hales between age 50 and 57 are 25% tality rates, and the pre-retirement der are 50% less than the female post- octive July 1, 2012.)		
Post-Retirement Disabled:	Shown below	for selected a	ges. (Adopte	d effective July 1, 2012.)		
	Age	Male	Female			
	20	3.08%	2.95%			
	25	3.08%	2.95%			
	30	3.08%	2.95%			
	35	3.08%	2.95%			
	40	3.08%	2.95%			
	45	2.16%	2.07%			

# EXHIBIT VI



Salary Increase Rates:	Shown below for se	elected ages. (Ad	opted effective July 1, 2012.)			
	Age	Rate	7			
	20	12.25%	-			
	25	12.25%				
	30	8.25%				
	35	7.45%				
	40	6.05%				
	45	5.50%				
	50	4.75%				
	55	4.25%				
	60	3.75%				
	65	3.25%				
	70	2.75%				
<b>Payroll Growth Rate:</b>	3.50% per annum co	ompounded annua	ally for the next four years, 4.00% thereafter			
Percent Married:	For valuation purposes, 80% of male members and 60% of female members are assumed to be married. Male members are assumed to be three years older than their spouses, and female members are assumed to be one year younger than their spouses. (The assumed age difference adopted effective July 1, 2012.)					
Asset Valuation Method:	The actuarial value of assets is based on the market value of assets with a four-year phase-in of actual investment return in excess of (or less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the actuarial value of assets (adjusted for receipts and disbursements during the year). The actual investment return for this purpose is determined net of all investment and administrative expenses. The actuarial value is further adjusted, if necessary, to be within 9% of the market value.					

#### SECTION 4: Reporting Information for the State Teachers Retirement System of Ohio

## ★ Segal Consulting

Actuarial Cost Method:	Normal cost and actuarial accrued liability are calculated on an individual basis and are allocated by salary. Entry age is determined as the age at member's enrollment in STRS Ohio. The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is the excess of the actuarial accrued liability over the actuarial value of assets.
Amortization Period and Method:	The actuarially determined contribution (ADC) is determined as the sum of (a) the employer normal cost rate, and (b) a level percentage of payroll required to amortize the unfunded actuarial accrued liability over a 30-year period.
Census and Assets:	The valuation was based on members of the System as of July 1, 2014, and does not take into account future members. All census and asset data was supplied by the System.



Male Rates				Female Rates					
Age	Under 25 Years of Service		30-34 Years of Service	35 or More Years of Service	Age	Under 25 Years of Service	25-29 Years of Service	30-34 Years of Service	35 or More Years of Service
52	0%	0%	20%	40%	52	0%	0%	20%	50%
53	0%	0%	10%	40%	53	0%	0%	10%	50%
54	0%	0%	10%	60%	54	0%	0%	10%	50%
55	0%	6%	10%	60%	55	0%	9%	10%	50%
56	0%	6%	10%	60%	56	0%	9%	15%	50%
57	0%	6%	15%	55%	57	0%	9%	15%	50%
58	0%	6%	15%	50%	58	0%	9%	15%	45%
59	0%	10%	15%	45%	59	0%	15%	20%	45%
60	10%	10%	15%	45%	60	10%	15%	25%	45%
61	10%	10%	15%	45%	61	10%	15%	25%	45%
62	12%	10%	15%	45%	62	10%	15%	25%	45%
63	12%	10%	10%	45%	63	10%	15%	30%	45%
64	12%	15%	10%	30%	64	15%	25%	30%	45%
65	20%	20%	10%	30%	65	25%	30%	30%	45%
66	20%	20%	10%	30%	66	20%	30%	30%	45%
67	15%	20%	10%	25%	67	20%	20%	30%	45%
68	15%	20%	10%	20%	68	20%	20%	30%	45%
69	15%	20%	10%	20%	69	20%	20%	30%	45%
70	15%	20%	10%	20%	70	20%	20%	30%	30%
71	15%	20%	10%	20%	71	20%	20%	30%	30%
72	15%	20%	10%	20%	72	20%	20%	30%	30%
73	15%	20%	10%	20%	73	20%	20%	30%	30%
74	15%	20%	10%	20%	74	20%	20%	30%	30%
75	100%	100%	100%	100%	75	100%	100%	100%	100%

**Retirement Rates:** The following rates of retirement are assumed for members eligible to retire. (Retirement Rates for the Defined Benefit Plan were adopted effective July 1, 2013.)



#### **Retirement Rates (continued):**

Def	Defined Benefit Plan – Grandfathered Members					ined Benefit I	Plan – Grandf	athered Memb	oers	
	Male Rates					Female Rates				
Age	Under 25 Years of Service	25-29 Years of Service	30-34 Years of Service	35 or More Years of Service	Age	Under 25 Years of Service	25-29 Years of Service	30-34 Years of Service	35 or More Years of Service	
52	0%	0%	20%	40%	52	0%	0%	20%	50%	
53	0%	0%	20%	40%	53	0%	0%	20%	50%	
54	0%	0%	20%	60%	54	0%	0%	20%	60%	
55	0%	6%	20%	60%	55	0%	9%	20%	60%	
56	0%	6%	20%	60%	56	0%	9%	20%	60%	
57	0%	6%	20%	60%	57	0%	9%	20%	60%	
58	0%	6%	20%	60%	58	0%	9%	20%	55%	
59	0%	7%	20%	55%	59	0%	10%	25%	55%	
60	10%	7%	20%	55%	60	10%	10%	30%	55%	
61	10%	7%	20%	55%	61	10%	10%	30%	55%	
62	12%	8%	20%	55%	62	10%	12%	30%	55%	
63	12%	8%	12%	55%	63	10%	12%	35%	55%	
64	12%	12%	12%	40%	64	15%	20%	35%	55%	
65	20%	20%	12%	40%	65	25%	30%	35%	55%	
66	20%	20%	12%	40%	66	20%	30%	35%	55%	
67	15%	20%	12%	35%	67	20%	20%	35%	55%	
68	15%	20%	12%	30%	68	20%	20%	35%	55%	
69	15%	20%	12%	30%	69	20%	20%	35%	55%	
70	15%	20%	12%	30%	70	20%	20%	35%	40%	
71	15%	20%	12%	30%	71	20%	20%	35%	40%	
72	15%	20%	12%	30%	72	20%	20%	35%	40%	
73	15%	20%	12%	30%	73	20%	20%	35%	40%	
74	15%	20%	12%	30%	74	20%	20%	35%	40%	
75	100%	100%	100%	100%	75	100%	100%	100%	100%	



Define	Defined Benefit Plan – Non-grandfathered Members					Define	d Benefit Pla	n – Non-gran	dfathered Me	embers
		Male Ra	tes					Female	Rates	
lge	Under 25 Years of Service	25-29 Years of Service	30-34 Years of Service*	35 or More Years of Service*		Age	Under 25 Years of Service	25-29 Years of Service	30-34 Years of Service*	35 or M Years Servi
52			20%	20%		52			20%	20%
53			20%	20%		53			20%	20%
54			20%	20%		54			20%	20%
55		3%	20%	20%		55		5%	20%	20%
56		3%	20%	20%		56		5%	20%	20%
57		3%	20%	20%		57		5%	20%	20%
58		3%	20%	20%		58		5%	20%	20%
59		5%	20%	20%		59		5%	25%	25%
60	5%	5%	20%	25%		60	5%	10%	30%	30%
61	6%	6%	20%	25%		61	6%	10%	30%	30%
62	7%	7%	20%	25%		62	7%	10%	30%	30%
63	8%	8%	12%	25%		63	8%	10%	35%	35%
64	10%	10%	12%	25%		64	12%	15%	35%	35%
65	20%	20%	12%	25%		65	25%	30%	35%	35%
66	20%	20%	12%	25%		66	20%	30%	35%	35%
67	15%	20%	12%	25%		67	20%	20%	35%	35%
68	15%	20%	12%	20%		68	20%	20%	35%	35%
69	15%	20%	12%	20%		69	20%	20%	35%	35%
70	15%	20%	12%	20%		70	20%	20%	35%	30%
71	15%	20%	12%	20%		71	20%	20%	35%	30%
72	15%	20%	12%	20%		72	20%	20%	35%	30%
73	15%	20%	12%	20%		73	20%	20%	35%	30%
74	15%	20%	12%	20%		74	20%	20%	35%	30%
75	100%	100%	100%	100%		75	100%	100%	100%	100%

**Retirement Rates (continued):** 

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\*Use two times 25-29 years of service rates if not eligible for unreduced retirement (prior to age 65)



35 or More

Years of

Service\*

20%

20%

20%

20%

20%

20%

20%

25%

30%

30%

30%

35%

35%

35%

35%

35%

35%

35%

30%

30% 30%

30%

30%

100%

## **Retirement Rates (continued):**

	Combined Plan						
Age	Male	Female					
60	13%	22%					
61	7%	9%					
62	7%	9%					
63	7%	9%					
64	9%	15%					
65	17%	20%					
66	15%	13%					
67	12%	13%					
68	12%	12%					
69	12%	12%					
70	12%	12%					
71	12%	12%					
72	12%	12%					
73	12%	12%					
74	12%	12%					
75	100%	100%					

## **Disability Rates:**

Shown below for selected ages. (Adopted effective July 1, 2012.)

Age	Male	Female
20	0.008%	0.010%
25	0.008%	0.010%
30	0.014%	0.011%
35	0.030%	0.033%
40	0.071%	0.060%
45	0.131%	0.083%
50	0.180%	0.120%
55	0.225%	0.150%
60	0.263%	0.175%
65	0.300%	0.200%

## **Termination Rates:**

Termination rates based on service, for causes other than death, disability, or retirement. (Adopted effective July 1, 2012.)

Vested Terminations*		
Age	Male	Female
20	11.25%	13.20%
25	11.25%	12.54%
30	2.40%	4.22%
35	1.96%	2.38%
40	1.62%	1.69%
45	2.00%	1.35%
50	2.00%	2.00%
55	4.00%	3.00%
60	4.00%	3.00%
65	0.00%	0.00%

\* Termination rates cut out at first retirement eligibility

Non-Vested Terminations		
Service	Male	Female
Under 1 Year	35.00%	35.00%
1 to 2 Years	25.00%	25.00%
2 to 3 Years	15.00%	15.00%
3 to 5 Years	10.00%	10.00%

#### Percent Electing a Deferred Termination Benefit:

50% of terminating members of the Defined Benefit Plan are assumed to elect deferred termination benefit. Termination benefits are assumed to commence at age 60 or the first age at which unreduced benefits are available, if earlier.



#### EXHIBIT VII

**Summary of Plan Provisions** 

#### DEFINED BENEFIT PLAN

**Eligibility for Membership** Immediate upon commencement of employment.

#### **Service Retirement**

Eligibility

Age 60 with five years of service, or age 55 with 25 years of service, or 30 years of service regardless of age. Age and service requirements for retirement will increase effective August 1, 2015.

Effective August 1, 2015, service credit requirements for retirement with an unreduced benefit will increase as follows:

Unreduced Benefit for Retirement Between:	Minimum Age and Years of Service
Now-7/1/2015	Any age and 30 years; or age 65 and 5 years
8/1/2015-7/1/2017	Any age and 31 years; or age 65 and 5 years
8/1/2017-7/1/2019	Any age and 32 years; or age 65 and 5 years
8/1/2019-7/1/2021	Any age and 33 years; or age 65 and 5 years
8/1/2021-7/1/2023	Any age and 34 years; or age 65 and 5 years
8/1/2023-7/1/2026	Any age and 35 years; or age 65 and 5 years
8/1/2026	Age 60 and 35 years; or age 65 and 5 years



Amount

Prior to July 1, 2015, annual amount equal to the greater of (a) 2.2% of final average salary for the three highest years of earnings, multiplied by years of total Ohio service credit, or 2.5% of final average salary for the three highest paid years if the member has 35 or more years of service credit multiplied by years of total Ohio service credit, except that for years of Ohio contributing service credit in excess of 30, the following percentages will apply:

Year	Percentage
31	2.5%
32	2.6
33	2.7
34	2.8
35	2.9
36	3.0
37	3.1
38	3.2
39	3.3

Or b) \$86 multiplied by years of service credit.

Effective August 1, 2015, annual amount equal to 2.2% of final average salary for the five highest years of earnings, multiplied by all years of service.

For members who are eligible to retire on July 1, 2015, annual amount will be greater of (a) the benefit amount calculated upon retirement under the new benefit formula, or (b) the benefit amount as of July 1, 2015 under the current formula.

Annual salary is subject to the limit under Section 401(a)(17).

Attained Age	or	Years of Ohio Service Credit	% of Base Amount
58		25	75%
59		26	80
60		27	85
61			88
		28	90
62			91
63			94
		29	95
64			97
65		30 or more	100

Prior to July 1, 2015, if the member has less than 30 years of service at retirement and is younger than age 65, the following reduction factors apply:

Effective August 1, 2015, the service credit requirements for an actuarially reduced benefit are as follows:

Actuarially Reduced Benefit for Retirement Between:	Minimum Age and Years of Service
Now-7/1/2015	Age 55 and 25 years; or age 60 and 5 years
8/1/2015-7/1/2017	Any age and 30 years; or age 55 and 26 years; or age 60 and 5 years
8/1/2017-7/1/2019	Any age and 30 years; or age 55 and 27 years; or age 60 and 5 years
8/1/2019-7/1/2021	Any age and 30 years; or age 55 and 28 years; or age 60 and 5 years
8/1/2021-7/1/2023	Any age and 30 years; or age 55 and 29 years; or age 60 and 5 years
8/1/2023	Any age and 30 years; or age 60 and 5 years

The actuarially reduced benefit reflects a reduction for each year that the member retirees before meeting eligibility for an unreduced benefit.

## **Disability Retirement**

Eligibility	Membership before July 30, 1992, and election of this benefit, completion of five or more years of service, under age 60 and permanently incapacitated for the performance of duty.	
Amount	1) Annuity with a reserve equal to the member's accumulated contributions, plus	
	2) The difference between (1) and the greater of 2% of the average salary during the three highest paid years or \$86 times total service plus years and months from date of disability to age 60. Maximum allowance is 75% of final average salary. Minimum allowance is 30% of final average salary.	
Disability Allowance		
Eligibility	Membership after July 29, 1992, or membership before July 30, 1992, and election of this benefit, completion of five or more years of qualifying service and permanently incapacitated for the performance of duty. For membership on or after July 1, 2013, completion of 10 years of qualifying service and permanently incapacitated for the performance of duty.	
Amount	The greater of 2.2% of the average salary during the three highest paid years or \$86 times total service. Maximum allowance is 60% of final average salary. Minimum allowance is 45% of final average salary. The disability allowance payment terminates at age 65 (or later if payment begins after age 60). After termination of the disability allowance, the member may apply for service retirement.	



Death after Retirement	Lump sum payment of \$1,000 upon death after service or disability retirement.			
Survivor's Benefit				
Eligibility	Upon death after at least 1 <sup>1</sup> / <sub>2</sub> years of credit for Ohio service with at least 1/4 year of such service in the 2 <sup>1</sup> / <sub>2</sub> years preceding death or upon death of a disability retiree. For membership on or after July 1, 2013, upon death after at least five years of credit for Ohio service and died not later than one year after the date service terminated.			disability retiree. For ve years of credit for
	Qualified survivors will which they are eligible: retirement-based benefit	dependent-based be		•
	Qualified beneficiaries a over age 65.	re the spouse, depe	endent children, and/o	or dependent parents
Dependent-based benefit	Monthly survivor benefits are determined according to the number of qualified survivors. These benefits are payable as a percentage of final average salary. The percentages are as follows:			
	Number of Qualified Dependents	% of Final Average Salary	Minimum Annual Benefit	
	1	25%	\$1,152	
	2	40	2,232	
	3	50	2,832	
	4	55	2,832	
	-	6.0		

60

2,832

5 or more

Service-based benefit

If a member has 20 or more years of service before death, monthly survivor benefits are determined according to the number of years of service credit. These benefits are payable as a percentage of final average salary. The percentages are as follows:

Years of Service	% of Final Average Salary
20	29%
21	33
22	37
23	41
24	45
25	48
26	51
27	54
28	57
29 or more	60

Retirement-based benefit

If a member dies after meeting service retirement eligibility, the monthly survivor benefit is determined as if the member had actually retired and provided the maximum joint and survivor benefit to the qualified survivor (Option 1). Early retirement reduction applies if the member is not eligible for unreduced benefit.

The primary beneficiary may withdraw the deceased member's account in lieu of receiving monthly benefits if there are no children who are qualified survivors.



Lump Sum Withdrawal Option	In lieu of any other pension or survivor benefits, a member who leaves the System can receive his/her member contributions with interest in a lump sum according to the following schedule:		
	Credit Service	Lump Sum	
	Less than 3 Years	Member Contributions with 2% Interest	
	3 or More Years and Less than 5 Years	Member Contributions with 3% Interest	
	5 Years or More	150% of Member Contributions with 3% Interest	
	The Board has the authority to	modify the interest credited to member contributions.	
Plans of Payment	There are four basic plans of p	payment:	
	Plan I – Single Life Annuity: if a member chooses this plan at retirement and later marries, he/she may change the plan to a Joint and Survivor Annuity with his/her spouse as beneficiary within the first year of the marriage.		
	Plan II – Joint and Survivor Annuity: there are four options under this plan of payment:		
	<ul> <li>Options 1, 2 and 3 apply to a single primary beneficiary</li> </ul>		
	<ul> <li>Option 4 applies to multiple primary beneficiaries</li> </ul>		

	Plan III – Annuity Certain: if a death occurs before the guaranteed period ends, a beneficiary receives the same monthly benefit until the guaranteed period expires. If a member name more than one beneficiary, a lump sum payment, representing the present value of the remaining payments is divided equally and paid to the beneficiaries. If all beneficiaries die before the expiration of the certain period, the present value of all remaining payments is to be paid to the estate of the beneficiary last receiving payments
	Plan IV – Partial Lump-Sum Option Plan: allows a member to take an amount from six to 36 times the monthly Single Life Annuity benefit in a lump sum at retirement. The remainder of a member's lifetime benefits will be paid based on member's selected plan of payment: Single Life Annuity, Joint and Survivor Annuity or Annuity Certain.
Optional Forms of Benefit	Option 1 - 100% joint and survivorship. Reduced retirement allowance payable to the member, continuing after the member's death, for life to the member's sole beneficiary named at retirement.
	Option 2 - A joint and survivorship annuity payable during the lifetime of the member, with the member's sole beneficiary named at retirement to receive some other portion of the member's annuity after the member's death.
	Option 3 - The sole member's reduced retirement allowance provided under Option 1 or Option 2 is to be paid after the member's death for life to the member's sole beneficiary named at retirement, except that in the event of the death of the sole beneficiary or termination of marriage between the retiree and the sole beneficiary, the retiree may elect to return to his single lifetime benefit equivalent, which would be available for an actuarially computed charge as determined by the Board. In the case of termination of marriage, the election may be made with the written consent of the beneficiary or by court order.

	Option 4 – Members who retire November 1, 2006, or later may elect a reduced benefit to provide continuing lifetime benefits for up to four primary beneficiaries under a Joint and Survivor Annuity. A member may specify percentages of his/her benefit or a flat dollar amount for each beneficiary; however, the total benefit amount payable to all beneficiaries cannot exceed the amount payable to the member.
Cost-of-Living Benefits	The basic benefit is increased each year by 2% of the original base benefit.
	Members who retired before July 1, 2013, will not receive a COLA during the 2014 fiscal year. Members who retired effective July 1, 2013, will not receive a COLA on July 1, 2014. After missing one COLA, retirees will resume COLA at 2% per year.
	For members retiring August 1, 2013, or later, the 2% COLA is paid on the fifth anniversary of the retirement benefit. Future annual increases are calculated on the original benefit and are not compounded.
Health Care	Retirees, their spouses and dependents are eligible for a comprehensive medical expense health care plan as may be offered by the Retirement Board, subject to changes in terms and conditions from time to time.
Contribution	
By Members	12% of salary;
	The member contribution rate is scheduled to increase to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016.
By Employers	14% of salaries of their employees who are members.



## **COMBINED PLAN**

Eligibility for Membership	New members hired on or after July 1, 2001, may elect in writing to participate in the Combined Plan.
Service (Normal) Retirement	
Eligibility	Age 60 with five years of service.
Amount	The balance in the member's defined contribution account plus an annual amount equal to 1% of final average salary for the three highest paid years multiplied by years of total Ohio service credit.
	Effective August 1, 2015, final average salary will be average of the member's five highest salary years.
	Annual salary is subject to the limit under Section 401(a)(17).
Vesting	
Eligibility	Completion of five years of service for the defined benefit portion. Member contributions and earnings are 100% vested at all times.
Amount	A member who terminates with 5 or more years of service credit can receive the actuarial equivalent present value of the defined benefit formula. Prior to age 50, a withdrawal must include both the defined benefit and defined contribution portions of the account.
Early Retirement	
Eligibility	Before age 60 with five years of service
Amount	The normal retirement benefit commencing at age 60. At age 50 or after, a member who elects to withdraw the full value of the member's defined contribution account may receive the withdrawal value of the formula benefit in a single sum, or leave the formula benefit on account for a benefit payable at age 60. The member may withdraw the defined benefit portion of the account only if he or she is also withdrawing the defined contribution account.



## **COMBINED PLAN (continued)**

## Late Retirement

Eligibility	After age 60 with five years of service.
Amount	The formula benefit described in the normal retirement section based on service credit and final average salary at termination without any actuarial adjustments.
<b>Disability Allowance</b>	
Eligibility	Completion of five or more years of service and permanently incapacitated for the performance of duty. For membership on or after July 1, 2013, completion of 10 years of qualifying service credit with STRS Ohio.
Amount	Members have the option of receiving disability benefits under the disability allowance program of the Defined Benefit Plan. All contributions and investment gains in the member's defined contribution account are used to fund the benefit. At age 65, the disability allowance converts to a service retirement benefit with a 2.2% formula. Alternatively, the member's defined contribution account is available.
Survivor's Benefit	
Eligibility	Upon death after at least $1\frac{1}{2}$ years of credit for Ohio service with at least $1/4$ year of such service in the $2\frac{1}{2}$ years preceding death or upon death of a disability retiree. For membership on or after July 1, 2013, upon death at least five years of qualifying service credit.
	Qualified survivors have the option of receiving dependent-based, service-based or retirement-based benefits described under the Defined Benefit Plan. Both employer contributions and the member's contributions and any investment gains in the member's defined contribution account are used to fund the benefit. Survivors also have the option to withdraw the defined contribution and defined benefit portions of the Combined Plan account.

## **COMBINED PLAN (continued)**

<b>Optional Forms of Payment</b> <b>Of Defined Benefit Portion</b>	A lump sum of the actuarial equivalent of the defined benefit formula benefit. If a member withdraws the member's defined contribution account prior to age 50, the formula benefit is paid in a lump sum.
	Joint and Survivorship Options - Options 1 through 4 described in the Defined Benefit Plan provisions are available. All alternative forms of payment are the actuarial equivalent of the single life annuity benefit payable at age 60.
Optional Forms of Payment Of Member's Defined	
Contribution Account	The actuarial equivalent of the member's defined contribution account can be paid on or after age 50 as a lifetime annuity. Options 1 through 4, described in the Defined Benefit Plan Provisions, are also available. The monthly annuity must be \$100 or more to receive the member's defined contribution account in the form of an annuity.
	The vested amount of the member's defined contribution account upon termination of employment can be paid as a single lump sum. If a member takes a lump sum of the defined benefit formula benefit, the member must simultaneously withdraw the lump sum value of the member's contribution account in a single lump sum.
Cost-of-Living Benefits	Not available on the service retirement benefit. For disability and survivor benefits, the basic benefit is increased by the increase in the Consumer Price Index each year, but not to exceed 2% of the original base benefit.
	Changes to the cost of living adjustment are described under the Defined Benefit Plan section.
Health Care	Retirees, their spouses and dependents eligible for a comprehensive medical expense health care plan as may be offered by the Retirement Board, subject to changes in terms and conditions from time to time.



#### COMBINED PLAN (continued)

## Contribution

By Members	12% of salary: 11% of salary is deposited into the member's defined contribution account and the remaining amount is applied to the Combined Plan.
	The member contribution rate is scheduled to increase to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016.
By Employers	14% of salaries is used to fund the defined benefit formula.



# **DEFINED CONTRIBUTION PLAN**

Eligibility for Membership	New members hired on or after July 1, 2001, may elect in writing to participate in the Defined Contribution Plan.
Service (Normal) Retirement	
Eligibility	Termination after age 50.
Amount	The balance in the member's defined contribution account.
Vesting	
Eligibility	Employer contributions and earnings on the member's account are vested after the first anniversary of membership. Effective July 1, 2013, members vest 20% per year in employer contributions and all gains and losses on those contributions. Member contributions and earnings are 100% vested immediately.
Amount	The balance in the member's defined contribution account.
Early Retirement	
Eligibility	Termination before age 50.
Amount	The balance in the member's defined contribution account.
Disability Allowance	
Eligibility	Permanently incapacitated for the performance of duty and termination of employment.
Amount	The balance in the member's defined contribution account. At age 50, other payment options are available, but employment must first be terminated.
Survivor's Benefit	
Eligibility	Upon death.
Amount	The balance in the member's defined contribution account. A spouse may either continue to manage the member's defined contribution account or withdraw the account.



# **DEFINED CONTRIBUTION PLAN (continued)**

<b>Optional Forms of Payment</b>	The actuarial equivalent of the member's defined contribution account can be paid on or after age 50 as a lifetime annuity. Plans of payments described in the Defined Benefit Plan Provisions are also available. The monthly annuity must be \$100 or more to receive the member's defined contribution account in the form of an annuity.
Cost-of-Living Benefits	Not available
Health Care	Not available.
Contribution	
By Members	12% of salary is deposited into the member's defined contribution account.
	The member contribution rate is scheduled to increase to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016.
By Employers	9.5% of salary is deposited into the member's defined contribution account. 4.5% of salaries is used to amortize the unfunded actuarial accrued liability of the defined benefit plan.



### EXHIBIT VIII

#### Summary of Plan Changes

#### **2012 Pension Reform Legislation**

- 1. Member Contributions will increase from 10% to 14%, phased in 1% per year beginning July 1, 2013, through July 1, 2016.
- 2. Service credit requirements for retirement with an unreduced benefit will increase from 30 years to 35 years of service by August 1, 2023. Beginning August 1, 2026, a minimum age of 60 is required. This change will be phased in beginning August 1, 2015, when eligibility for unreduced benefits increases to 31 years of service. The service credit requirement increases by one year every other year (e.g., the eligibility requirement is 32 years at August 1, 2017, 33 years at August 1, 2019, etc.). An unreduced retirement benefit continues to be available at age 65 with a minimum of five years of service.
- 3. Service credit requirements for an actuarially reduced benefit will increase from age 55 with 25 years of service to 30 years of service by August 1, 2023. This change will be phased in beginning August 1, 2015, when eligibility for a reduced benefit increases to age 55 with 26 years of service or any age with 30 years of service. The service credit requirement increases by one year every other year (e.g., the eligibility requirement is age 55 with 27 years of service at August 1, 2017, age 55 with 28 years of service August 1, 2019, etc.). A retirement benefit continues to be available at age 60 with a minimum of five years of service; however, the benefit will be actuarially reduced beginning August 1, 2015.
- 4. Final average salary is changed to be the average of five highest years of earnings beginning August 1, 2015.
- 5. The current 35-year enhanced benefit formula will be eliminated after July 1, 2015. The new benefit formula is 2.2% for all years of service.
- 6. Members who retire before July 1, 2013, will not receive a cost-of-living adjustment (COLA) during the 2014 fiscal year. Members who retire effective July 1, 2013, will not receive a COLA on July 1, 2014. After missing one COLA, retirees will resume a COLA of 2% per year. Members retiring after July 1, 2013, will receive a 2% COLA, but it will not begin until the fifth anniversary of retirement.



### 2012 Pension Reform Legislation (continued)

7. Members who are eligible to retire on July 1, 2015, will continue to maintain retirement eligibility if they continue working, and the benefit will be the greater of (a) the benefit calculated upon retirement under the new formula, or (b) the benefit as of July 1, 2015, under the current formula.

The new law also provides the STRS Ohio Retirement Board with authority to make future adjustments to the member contribution rate, retirement age and service requirements and the COLA, depending on the retirement System's funding progress.

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# State Teachers Retirement System of Ohio

Appendix Tables for Actuarial Valuation and Review as of July 1, 2014

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## TABLE 1

THE NUMBER AND ANNUAL SALARIES OF DEFINED BENEFIT AND COMBINED PLAN ACTIVE MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 2014

		Male		Female		Total	Γ			Male		Female		Total
Age	Number	Compensation*	Number	Compensation*	Number	Compensation*		Age	Number	Compensation*	Number	Compensation*	Number	Compensation*
18	4	6,766	0	0	4	6,766		56	984	68,128,627	2,655	164,027,533	3,639	232,156,160
19	1	6,314	5	42,458	6	48,771		57	925	64,452,602	2,424	146,473,942	3,349	210,926,544
20	4	22,417	3	16,004	7	38,422		58	833	59,690,606	2,205	131,931,032	3,038	191,621,638
21	10	58,730	52	266,990	62	325,720		59	840	57,120,960	2,212	135,120,259	3,052	192,241,219
22	81	872,246	436	7,241,847	517	8,114,094		60	718	48,873,557	1,797	110,983,268	2,515	159,856,825
23	438	7,364,038	1,517	32,446,915	1,955	39,810,953		61	700	49,023,184	1,510	94,307,196	2,210	143,330,380
24	660	15,489,036	1,944	49,822,507	2,604	65,311,543		62	629	42,711,211	1,360	83,802,149	1,989	126,513,361
25	801	19,447,380	2,197	63,743,832	2,998	83,191,212		63	591	39,966,786	1,160	69,830,047	1,751	109,796,833
26	857	24,022,155	2,411	76,394,738	3,268	100,416,893		64	507	34,219,677	902	56,166,756	1,409	90,386,433
27	840	27,123,537	2,520	87,790,994	3,360	114,914,530		65	396	27,649,502	619	35,830,385	1,015	63,479,887
28	986	33,869,193	2,754	101,072,539	3,740	134,941,732		66	371	26,673,550	431	24,979,304	802	51,652,854
29	1,092	42,057,458	2,997	117,793,552	4,089	159,851,010		67	307	19,864,069	356	18,209,614	663	38,073,682
30	1,177	47,786,457	3,031	122,827,650	4,208	170,614,107		68	200	11,521,553	164	8,182,347	364	19,703,900
31	1,225	52,069,841	3,250	139,940,871	4,475	192,010,713		69	132	9,236,778	167	8,313,829	299	17,550,607
32	1,318	60,165,522	3,357	149,689,851	4,675	209,855,373		70	119	6,633,864	105	5,180,254	224	11,814,118
33	1,276	61,731,804	3,454	160,006,755	4,730	221,738,558		71	120	7,406,298	86	3,173,868	206	10,580,166
34	1,382	71,888,283	3,583	174,677,595	4,965	246,565,877		72	84	4,300,352	51	1,867,018	135	6,167,370
35	1,413	76,077,103	3,630	184,520,312	5,043	260,597,416		73	61	3,978,439	42	1,731,353	103	5,709,792
36	1,509	84,427,743	3,633	188,126,669	5,142	272,554,413		74	49	1,797,363	30	980,852	79	2,778,216
37	1,477	85,062,158	3,495	185,111,638	4,972	270,173,795		75	43	2,794,023	24	847,125	67	3,641,148
38	1,391	85,103,537	3,229	176,523,585	4,620	261,627,122		76	45	2,524,235	10	341,572	55	2,865,807
39	1,469	88,327,754	3,555	195,444,284	5,024	283,772,038		77	23	1,313,913	15	318,375	38	1,632,287
40	1,394	86,325,685	3,356	187,680,247	4,750	274,005,932		78	26	1,410,859	8	318,368	34	1,729,227
41	1,391	86,377,719	3,494	195,259,278	4,885	281,636,997		79	16	788,637	8	166,329	24	954,966
42	1,417	90,679,729	3,678	205,738,688	5,095	296,418,416		80	8	445,211	9	167,716	17	612,927
43	1,604	102,779,280	4,125	236,767,459	5,729	339,546,739		81	3	21,635	5	115,716	8	137,351
44	1,466	97,505,079	3,717	215,847,611	5,183	313,352,690		82	6	331,845	4	336,230	10	668,075
45	1,404	91,395,294	3,749	215,372,757	5,153	306,768,051		83	5	242,868	2	64,036	7	306,904
46	1,311	86,252,003	3,308	191,273,497	4,619	277,525,500		84	3	228,935	2	16,298	5	245,232
47	1,252	84,348,835	3,326	193,913,579	4,578	278,262,414		85	1	64,548	1	32,195	2	96,743
48	1,266	85,736,818	2,991	178,154,282	4,257	263,891,100		86	2	38,301	0	0	2	38,301
49	1,192	80,503,241	2,986	177,957,078	4,178	258,460,320		87	2	106,428	0	0	2	106,428
50	1,202	80,660,245	2,971	178,823,132	4,173	259,483,377		88	1	24,526	0	0	1	24,526
51	1,201	82,729,985	3,037	183,208,997	4,238	265,938,981		89	1	6,785	0	0	1	6,785
52	1,147	81,528,520	2,893	174,890,535	4,040	256,419,054		90	1	5,291	0	0	1	5,291
53	1,058	71,505,598	2,770	167,620,675	3,828	239,126,272		91	0	0	0	0	0	0
54	1,020	72,591,011	2,527	150,772,020	3,547	223,363,030		92	1	118,631	0	0	1	118,631
55	932	65,908,989	2,529	154,318,719	3,461	220,227,708		Total	48,421	2,823,523,150	120,874	6,324,915,106	169,295	9,148,438,256



### TABLE 2 THE NUMBER AND ANNUAL SALARIES OF DEFINED BENEFIT AND COMBINED PLAN ACTIVE MEMBERS DISTRIBUTED BY YEARS OF SERVICE AS OF JULY 1, 2014

Years of	Male		Female		Total		Years of	Male		Female		Total	
Service	Number	Compensation*	Number	Compensation*	Number	Compensation*	Service	Number	Compensation*	Number	Compensation*	Number	Compensation*
0	2,747	11,411,681	4,855	19,433,499	7,602	30,845,180	29	808	74,013,619	1,776	134,686,973	2,584	208,700,591
1	4,064	102,887,994	9,136	216,510,188	13,200	319,398,183	30	463	43,068,254	1,067	81,909,673	1,530	124,977,927
2	2,913	98,353,416	6,626	206,554,718	9,539	304,908,134	31	308	30,390,648	650	50,234,386	958	80,625,033
3	2,198	78,900,850	5,402	183,875,496	7,600	262,776,346	32	230	23,246,501	447	35,402,643	677	58,649,144
4	1,968	77,882,534	4,806	175,007,980	6,774	252,890,514	33	199	19,116,049	373	29,614,542	572	48,730,591
5	1,940	83,943,767	4,824	191,601,788	6,764	275,545,555	34	360	34,118,696	779	59,817,506	1,139	93,936,202
6	1,884	89,954,882	4,936	212,481,450	6,820	302,436,333	35	173	17,497,636	394	31,122,435	567	48,620,071
7	1,665	83,271,731	4,847	219,633,876	6,512	302,905,607	36	89	9,655,705	149	12,507,570	238	22,163,275
8	1,669	92,178,822	4,557	220,337,222	6,226	312,516,044	37	43	4,340,519	91	7,251,322	134	11,591,841
9	1,540	88,669,679	4,370	219,728,654	5,910	308,398,332	38	43	4,944,929	60	4,855,667	103	9,800,596
10	1,469	87,587,669	4,195	221,094,252	5,664	308,681,921	39	30	2,998,144	27	2,199,419	57	5,197,563
11	1,432	90,443,256	4,044	224,258,332	5,476	314,701,588	40	9	1,208,585	15	1,350,110	24	2,558,694
12	1,609	104,564,863	4,384	255,129,033	5,993	359,693,896	41	12	1,382,700	13	1,114,510	25	2,497,210
13	1,640	110,305,823	4,629	280,783,401	6,269	391,089,224	42	9	814,610	9	868,283	18	1,682,893
14	1,626	114,901,083	4,568	285,048,103	6,194	399,949,186	43	7	800,757	1	94,265	8	895,022
15	1,674	122,387,144	4,519	292,035,820	6,193	414,422,964	44	5	567,778	2	181,145	7	748,923
16	1,486	109,565,446	4,124	274,236,116	5,610	383,801,562	45	8	944,211	3	181,387	11	1,125,598
17	1,422	106,872,637	3,676	249,146,902	5,098	356,019,539	46	7	754,135	6	490,621	13	1,244,755
18	1,385	107,450,633	3,399	235,164,532	4,784	342,615,164	47	4	435,697	0	0	4	435,697
19	1,232	97,154,282	3,200	222,398,003	4,432	319,552,285	48	6	662,077	1	144,571	7	806,647
20	1,213	97,048,296	3,109	219,742,151	4,322	316,790,447	49	2	254,108	3	367,679	5	621,787
21	1,102	90,761,629	2,851	204,580,025	3,953	295,341,654	50	3	482,487	0	0	3	482,487
22	926	77,695,126	2,396	173,019,666	3,322	250,714,792	51	0	0	0	0	0	0
23	913	79,143,923	2,253	166,351,918	3,166	245,495,841	52	1	103,604	1	69,639	2	173,243
24	880	78,159,384	2,272	168,799,525	3,152	246,958,909	53	0	0	1	74,951	1	74,951
25	805	71,140,596	2,016	150,257,902	2,821	221,398,498	54	0	0	0	0	0	0
26	781	69,222,876	1,774	135,085,766	2,555	204,308,643	55	0	0	1	70,448	1	70,448
27	702	65,411,949	1,662	126,832,042	2,364	192,243,991	56	1	103,848	0	0	1	103,848
28	716	64,345,885	1,575	121,177,003	2,291	185,522,888	Total	48,421	\$2,823,523,150	120,874	\$6,324,915,106	169,295	\$9,148,438,256

# TABLE 3

THE NUMBER AND ANNUAL SALARIES OF COMBINED PLAN ACTIVE MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 2014

		Male	F	emale		Total			Male		Female		Total
Age	Number	Compensation*	Number	Compensation*	Number	Compensation*	Age	Number	Compensation*	Number	Compensation*	Number	Compensation*
21	0	0	3	49,318	3	49,318	50	21	1,204,062	77	4,322,307	98	5,526,369
22	3	82,024	19	439,864	22	521,888	51	24	1,395,595	83	4,278,084	107	5,673,679
23	17	342,405	100	2,425,441	117	2,767,845	52	15	778,618	97	5,003,178	112	5,781,796
24	29	702,957	108	2,865,818	137	3,568,775	53	24	1,351,520	86	4,305,168	110	5,656,687
25	21	590,794	126	3,783,989	147	4,374,783	54	24	1,327,415	78	3,822,010	102	5,149,426
26	29	1,015,048	112	3,767,363	141	4,782,411	55	22	1,414,440	71	3,902,480	93	5,316,919
27	27	931,053	108	4,009,841	135	4,940,894	56	18	789,908	60	3,041,357	78	3,831,264
28	13	372,846	120	4,611,433	133	4,984,279	57	23	1,463,277	68	3,606,482	91	5,069,759
29	30	1,321,263	131	5,347,088	161	6,668,352	58	15	826,903	59	2,978,317	74	3,805,220
30	29	1,306,070	137	5,730,743	166	7,036,813	59	26	1,155,705	54	3,030,917	80	4,186,622
31	25	983,096	127	5,781,444	152	6,764,541	60	18	1,311,612	50	2,577,400	68	3,889,011
32	24	1,344,507	145	6,873,187	169	8,217,694	61	5	230,160	32	1,613,562	37	1,843,722
33	32	1,547,715	157	8,094,920	189	9,642,635	62	15	534,366	28	1,446,666	43	1,981,032
34	45	2,711,128	162	8,317,674	207	11,028,802	63	7	388,378	19	850,061	26	1,238,439
35	46	2,786,857	174	9,379,304	220	12,166,161	64	8	487,454	14	661,689	22	1,149,143
36	44	2,681,018	135	7,297,924	179	9,978,942	65	4	100,071	14	681,841	18	781,911
37	26	1,504,342	129	6,921,167	155	8,425,509	66	4	98,298	3	27,411	7	125,709
38	42	2,890,125	117	6,458,973	159	9,349,098	67	6	181,940	6	117,451	12	299,390
39	37	1,954,708	127	7,379,918	164	9,334,626	68	4	150,319	1	26,258	5	176,577
40	35	2,133,675	110	6,118,049	145	8,251,723	69	1	3,865	1	40,575	2	44,440
41	38	2,453,761	110	5,373,359	148	7,827,120	70	6	312,227	2	95,922	8	408,150
42	27	1,557,601	91	4,648,202	118	6,205,802	71	1	6,723	0	0	1	6,723
43	28	1,712,383	128	6,438,045	156	8,150,428	72	1	10,130	0	0	1	10,130
44	43	2,589,466	91	4,661,422	134	7,250,888	73	1	4,570	0	0	1	4,570
45	34	2,054,162	98	4,666,287	132	6,720,449	74	2	24,871	0	0	2	24,871
46	36	2,454,993	97	4,692,930	133	7,147,923	75	0	0	0	0	0	0
47	28	1,615,104	90	4,633,252	118	6,248,356	76	0	0	1	10,098	1	10,098
48	27	1,713,423	80	4,116,767	107	5,830,190	77	1	13,742	0	0	1	13,742
49	30	2,282,280	90	4,766,554	120	7,048,834	Total	1,141	\$61,200,973	4,126	\$196,089,508	5,267	\$257,290,480

### TABLE 4 THE NUMBER AND ANNUAL SALARIES OF COMBINED PLAN ACTIVE MEMBERS DISTRIBUTED BY YEARS OF SERVICE AS OF JULY 1, 2014

Years of		Male		Female		Total
Service	Number	Compensation*	Number	Compensation*	Number	Compensation*
0	58	344,126	154	854,146	212	1,198,272
1	149	6,154,782	484	13,686,790	633	19,841,572
2	108	4,907,840	337	11,541,603	445	16,449,443
3	75	3,191,122	257	10,313,029	332	13,504,151
4	71	2,921,525	224	9,158,474	295	12,080,000
5	45	2,116,583	200	7,905,407	245	10,021,990
6	66	3,426,527	232	10,652,229	298	14,078,755
7	61	3,204,692	224	10,495,762	285	13,700,454
8	69	4,589,360	210	10,788,588	279	15,377,948
9	50	3,179,090	225	11,565,979	275	14,745,070
10	49	3,105,756	215	12,248,229	264	15,353,985
11	41	2,530,969	208	11,668,327	249	14,199,295
12	64	4,266,723	241	14,459,193	305	18,725,916
13	60	4,337,281	227	15,068,776	287	19,406,057
14	37	2,681,837	191	12,504,957	228	15,186,795
15	53	3,606,817	195	12,584,352	248	16,191,169
16	43	3,442,127	143	9,616,155	186	13,058,282
17	35	2,686,011	126	8,728,860	161	11,414,871
18	7	507,804	33	2,248,651	40	2,756,455
Total	1,141	\$61,200,973	4,126	\$196,089,508	5,267	\$257,290,480



# TABLE 5 THE NUMBER AND ANNUAL SALARIES OF DEFINED BENEFIT ACTIVE MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 2014

		Male		Female		Total			Male		Female		Total
Age	Number	Compensation*	Number	Compensation*	Number	Compensation*	Age	Number	Compensation*	Number	Compensation*	Number	Compensation*
18	4	6,766	0	0	4	6,766	56	966	67,338,720	2,595	160,986,176	3,561	228,324,896
19	1	6,314	5	42,458	6	48,771	57	902	62,989,325	2,356	142,867,460	3,258	205,856,785
20	4	22,417	3	16,004	7	38,422	58	818	58,863,704	2,146	128,952,715	2,964	187,816,418
21	10	58,730	49	217,671	59	276,401	59	814	55,965,255	2,158	132,089,342	2,972	188,054,598
22	78	790,222	417	6,801,983	495	7,592,205	60	700	47,561,945	1,747	108,405,868	2,447	155,967,813
23	421	7,021,633	1,417	30,021,475	1,838	37,043,108	61	695	48,793,023	1,478	92,693,634	2,173	141,486,658
24	631	14,786,079	1,836	46,956,690	2,467	61,742,768	62	614	42,176,846	1,332	82,355,483	1,946	124,532,329
25	780	18,856,585	2,071	59,959,843	2,851	78,816,429	63	584	39,578,408	1,141	68,979,986	1,725	108,558,394
26	828	23,007,107	2,299	72,627,375	3,127	95,634,482	64	499	33,732,223	888	55,505,067	1,387	89,237,290
27	813	26,192,483	2,412	83,781,153	3,225	109,973,636	65	392	27,549,431	605	35,148,545	997	62,697,976
28	973	33,496,347	2,634	96,461,106	3,607	129,957,453	66	367	26,575,252	428	24,951,893	795	51,527,145
29	1,062	40,736,195	2,866	112,446,463	3,928	153,182,658	67	301	19,682,129	350	18,092,163	651	37,774,292
30	1,148	46,480,387	2,894	117,096,907	4,042	163,577,294	68	196	11,371,234	163	8,156,089	359	19,527,323
31	1,200	51,086,745	3,123	134,159,427	4,323	185,246,172	69	131	9,232,913	166	8,273,254	297	17,506,167
32	1,294	58,821,015	3,212	142,816,664	4,506	201,637,679	70	113	6,321,636	103	5,084,332	216	11,405,968
33	1,244	60,184,089	3,297	151,911,834	4,541	212,095,923	71	119	7,399,575	86	3,173,868	205	10,573,443
34	1,337	69,177,154	3,421	166,359,921	4,758	235,537,075	72	83	4,290,222	51	1,867,018	134	6,157,240
35	1,367	73,290,246	3,456	175,141,009	4,823	248,431,255	73	60	3,973,869	42	1,731,353	102	5,705,222
36	1,465	81,746,725	3,498	180,828,745	4,963	262,575,470	74	47	1,772,493	30	980,852	77	2,753,345
37	1,451	83,557,815	3,366	178,190,471	4,817	261,748,286	75	43	2,794,023	24	847,125	67	3,641,148
38	1,349	82,213,412	3,112	170,064,613	4,461	252,278,024	76	45	2,524,235	9	331,474	54	2,855,709
39	1,432	86,373,046	3,428	188,064,366	4,860	274,437,412	77	22	1,300,171	15	318,375	37	1,618,546
40	1,359	84,192,010	3,246	181,562,199	4,605	265,754,209	78	26	1,410,859	8	318,368	34	1,729,227
41	1,353	83,923,958	3,384	189,885,919	4,737	273,809,877	79	16	788,637	8	166,329	24	954,966
42	1,390	89,122,128	3,587	201,090,486	4,977	290,212,614	80	8	445,211	9	167,716	17	612,927
43	1,576	101,066,897	3,997	230,329,414	5,573	331,396,311	81	3	21,635	5	115,716	8	137,351
44	1,423	94,915,613	3,626	211,186,189	5,049	306,101,802	82	6	331,845	4	336,230	10	668,075
45	1,370	89,341,132	3,651	210,706,470	5,021	300,047,602	83	5	242,868	2	64,036	7	306,904
46	1,275	83,797,010	3,211	186,580,567	4,486	270,377,577	84	3	228,935	2	16,298	5	245,232
47	1,224	82,733,731	3,236	189,280,327	4,460	272,014,058	85	1	64,548	1	32,195	2	96,743
48	1,239	84,023,395	2,911	174,037,515	4,150	258,060,911	86	2	38,301	0	0	2	38,301
49	1,162	78,220,961	2,896	173,190,525	4,058	251,411,486	87	2	106,428	0	0	2	106,428
50	1,181	79,456,183	2,894	174,500,825	4,075	253,957,008	88	1	24,526	0	0	1	24,526
51	1,177	81,334,389	2,954	178,930,913	4,131	260,265,302	89	1	6,785	0	0	1	6,785
52	1,132	80,749,901	2,796	169,887,356	3,928	250,637,258	90	1	5,291	0	0	1	5,291
53	1,034	70,154,078	2,684	163,315,507	3,718	233,469,585	91	0	0	0	0	0	0
54	996	71,263,595	2,449	146,950,009	3,445	218,213,605	92	1	118,631	0	0	1	118,631
55	910	64,494,549	2,458	150,416,239	3,368	214,910,788	Total	47,280	\$2,762,322,177	116,748	\$6,128,825,599	164,028	\$8,891,147,776

# TABLE 6

THE NUMBER AND ANNUAL SALARIES OF DEFINED BENEFIT ACTIVE MEMBERS DISTRIBUTED BY YEARS OF SERVICE AS OF JULY 1, 2014

Years of		Male		Female		Total	Years of		Male		Female		Total
Service	Number	Compensation*	Number	Compensation*	Number	Compensation*	Service	Number	Compensation*	Number	Compensation*	Number	Compensation*
0	2,689	11,067,555	4,701	18,579,353	7,390	29,646,908	29	808	74,013,619	1,776	134,686,973	2,584	208,700,591
1	3,915	96,733,212	8,652	202,823,399	12,567	299,556,611	30	463	43,068,254	1,067	81,909,673	1,530	124,977,927
2	2,805	93,445,576	6,289	195,013,115	9,094	288,458,692	31	308	30,390,648	650	50,234,386	958	80,625,033
3	2,123	75,709,728	5,145	173,562,467	7,268	249,272,195	32	230	23,246,501	447	35,402,643	677	58,649,144
4	1,897	74,961,009	4,582	165,849,506	6,479	240,810,514	33	199	19,116,049	373	29,614,542	572	48,730,591
5	1,895	81,827,184	4,624	183,696,381	6,519	265,523,565	34	360	34,118,696	779	59,817,506	1,139	93,936,202
6	1,818	86,528,356	4,704	201,829,221	6,522	288,357,577	35	173	17,497,636	394	31,122,435	567	48,620,071
7	1,604	80,067,038	4,623	209,138,114	6,227	289,205,153	36	89	9,655,705	149	12,507,570	238	22,163,275
8	1,600	87,589,462	4,347	209,548,634	5,947	297,138,096	37	43	4,340,519	91	7,251,322	134	11,591,841
9	1,490	85,490,588	4,145	208,162,674	5,635	293,653,263	38	43	4,944,929	60	4,855,667	103	9,800,596
10	1,420	84,481,913	3,980	208,846,023	5,400	293,327,937	39	30	2,998,144	27	2,199,419	57	5,197,563
11	1,391	87,912,287	3,836	212,590,005	5,227	300,502,292	40	9	1,208,585	15	1,350,110	24	2,558,694
12	1,545	100,298,140	4,143	240,669,839	5,688	340,967,980	41	12	1,382,700	13	1,114,510	25	2,497,210
13	1,580	105,968,543	4,402	265,714,625	5,982	371,683,167	42	9	814,610	9	868,283	18	1,682,893
14	1,589	112,219,245	4,377	272,543,145	5,966	384,762,391	43	7	800,757	1	94,265	8	895,022
15	1,621	118,780,326	4,324	279,451,469	5,945	398,231,795	44	5	567,778	2	181,145	7	748,923
16	1,443	106,123,319	3,981	264,619,961	5,424	370,743,280	45	8	944,211	3	181,387	11	1,125,598
17	1,387	104,186,626	3,550	240,418,042	4,937	344,604,668	46	7	754,135	6	490,621	13	1,244,755
18	1,378	106,942,829	3,366	232,915,880	4,744	339,858,709	47	4	435,697	0	0	4	435,697
19	1,232	97,154,282	3,200	222,398,003	4,432	319,552,285	48	6	662,077	1	144,571	7	806,647
20	1,213	97,048,296	3,109	219,742,151	4,322	316,790,447	49	2	254,108	3	367,679	5	621,787
21	1,102	90,761,629	2,851	204,580,025	3,953	295,341,654	50	3	482,487	0	0	3	482,487
22	926	77,695,126	2,396	173,019,666	3,322	250,714,792	51	0	0	0	0	0	0
23	913	79,143,923	2,253	166,351,918	3,166	245,495,841	52	1	103,604	1	69,639	2	173,243
24	880	78,159,384	2,272	168,799,525	3,152	246,958,909	53	0	0	1	74,951	1	74,951
25	805	71,140,596	2,016	150,257,902	2,821	221,398,498	54	0	0	0	0	0	0
26	781	69,222,876	1,774	135,085,766	2,555	204,308,643	55	0	0	1	70,448	1	70,448
27	702	65,411,949	1,662	126,832,042	2,364	192,243,991	56	1	103,848	0	0	1	103,848
28	716	64,345,885	1,575	121,177,003	2,291	185,522,888	Total	47,280	\$2,762,322,177	116,748	\$6,128,825,599	164,028	\$8,891,147,776

### TABLE 7 THE NUMBER OF DEFINED BENEFIT AND COMBINED PLAN INACTIVE MEMBERS ELIGIBLE FOR FUTURE ALLOWANCE DISTRIBUTED BY AGE AS OF JULY 1, 2014

Age	Male	Female	Total	Age	Male	Female	Total		Age	Male	Female	Total
27	0	6	6	52	124	353	477		77	0	1	1
28	4	27	31	53	148	399	547		78	1	2	3
29	11	56	67	54	133	390	523		79	0	0	0
30	17	124	141	55	184	380	564		80	2	1	3
31	32	157	189	56	141	454	595		81	0	1	1
32	27	223	250	57	185	457	642		82	1	0	1
33	50	251	301	58	193	526	719		83	2	1	3
34	49	318	367	59	188	500	688		84	1	1	2
35	61	315	376	60	154	402	556		85	0	0	0
36	71	333	404	61	152	362	514		86	1	0	1
37	80	381	461	62	127	318	445		87	0	0	0
38	82	312	394	63	116	284	400		88	1	1	2
39	94	344	438	64	105	229	334		89	0	0	0
40	81	367	448	65	96	164	260		90	0	1	1
41	88	321	409	66	69	148	217		91	0	1	1
42	90	365	455	67	59	99	158		92	0	0	0
43	111	384	495	68	33	76	109		93	0	0	0
44	96	406	502	69	30	68	98		94	0	0	0
45	99	380	479	70	25	51	76		95	0	0	0
46	131	358	489	71	9	7	16		96	0	0	0
47	109	365	474	72	8	10	18		97	0	0	0
48	113	326	439	73	3	5	8		98	0	0	0
49	132	333	465	74	2	6	8		99	0	0	0
50	118	377	495	75	7	2	9		100	0	1	1
51	113	343	456	76	1	3	4		Total	4,160	12,876	17,036

### TABLE 8 THE NUMBER OF DEFINED BENEFIT AND COMBINED PLAN INACTIVE MEMBERS ELIGIBLE FOR REFUNDS ONLY DISTRIBUTED BY AGE AS OF JULY 1, 2014

Age	Male	Female	Total	Age	Male	Female	Total	Age	Male	Female	Total
Unknown	115	2,552	2,667	49	1,244	2,066	3,310	81	5	3	8
18	2	0	2	50	1,284	1,955	3,239	82	4	2	6
19	0	8	8	51	1,253	2,046	3,299	83	0	3	3
20	3	10	13	52	1,155	1,962	3,117	84	1	1	2
21	12	17	29	53	1,215	2,056	3,271	85	0	3	3
22	24	54	78	54	1,129	1,904	3,033	86	1	1	2
23	86	295	381	55	1,276	2,006	3,282	87	0	1	1
24	260	647	907	56	1,194	1,990	3,184	88	1	2	3
25	443	958	1,401	57	1,229	1,918	3,147	89	2	2	4
26	612	1,243	1,855	58	1,142	1,787	2,929	90	1	1	2
27	773	1,700	2,473	59	1,250	1,757	3,007	91	2	0	2
28	833	1,734	2,567	60	1,155	1,705	2,860	92	0	1	1
29	962	2,010	2,972	61	1,145	1,557	2,702	93	2	1	3
30	1,034	2,004	3,038	62	1,068	1,539	2,607	94	1	1	2
31	1,079	2,278	3,357	63	1,006	1,383	2,389	95	0	1	1
32	1,150	2,375	3,525	64	868	1,218	2,086	96	0	0	0
33	1,158	2,435	3,593	65	863	1,023	1,886	97	0	1	1
34	1,254	2,487	3,741	66	749	839	1,588	98	1	0	1
35	1,269	2,381	3,650	67	768	907	1,675	99	2	0	2
36	1,156	2,321	3,477	68	422	528	950	100	0	1	1
37	1,152	2,211	3,363	69	403	463	866	101	0	2	2
38	1,169	1,969	3,138	70	303	376	679	102	1	1	2
39	1,136	1,993	3,129	71	60	62	122	103	1	0	1
40	1,123	1,932	3,055	72	35	31	66	104	0	3	3
41	1,164	1,987	3,151	73	32	26	58	105	0	1	1
42	1,258	2,073	3,331	74	17	15	32	106	0	0	0
43	1,215	2,462	3,677	75	22	23	45	107	1	1	2
44	1,310	2,293	3,603	76	15	16	31	108	1	1	2
45	1,266	2,167	3,433	77	14	7	21	109	0	1	1
46	1,169	2,099	3,268	78	10	5	15	Total	49,029	85,815	134,844
47	1,227	1,978	3,205	79	9	3	12				
48	1,249	1,932	3,181	80	4	2	6				



# TABLE 9THE NUMBER OF INACTIVE COMBINED PLAN MEMBERSELIGIBLE FOR FUTURE ALLOWANCES DISTRIBUTED BY AGE AS OF JULY 1, 2014

Age	Male	Female	Total	Age	Male	Female	Total
28	0	1	1	52	2	8	10
29	0	6	6	53	2	6	8
30	0	7	7	54	0	7	7
31	0	9	9	55	2	7	9
32	2	3	5	56	3	7	10
33	2	10	12	57	3	12	15
34	5	16	21	58	1	8	9
35	0	18	18	59	2	7	9
36	2	24	26	60	1	7	8
37	0	16	16	61	1	4	5
38	1	16	17	62	1	4	5
39	5	14	19	63	0	2	2
40	1	12	13	64	0	1	1
41	3	12	15	65	1	3	4
42	1	9	10	66	1	0	1
43	3	8	11	67	1	1	2
44	1	7	8	68	0	0	0
45	5	10	15	69	0	0	0
46	2	5	7	70	0	0	0
47	2	8	10	71	2	0	2
48	4	10	14	72	1	0	1
49	4	5	9	73	0	0	0
50	1	6	7	74	1	0	1
51	1	11	12	Total	70	327	397



# TABLE 10THE NUMBER OF INACTIVE COMBINED PLAN MEMBERSELIGIBLE FOR REFUNDS ONLY DISTRIBUTED BY AGE AS OF JULY 1, 2014

Age	Male	Female	Total	Age	Male	Female	Total
21	0	1	1	50	8	22	30
22	0	2	2	51	7	18	25
23	1	11	12	52	8	25	33
24	7	20	27	53	11	13	24
25	3	21	24	54	10	26	36
26	9	16	25	55	10	18	28
27	4	26	30	56	8	23	31
28	10	23	33	57	7	20	27
29	5	31	36	58	10	13	23
30	4	31	35	59	11	16	27
31	6	23	29	60	10	18	28
32	6	28	34	61	13	12	25
33	6	31	37	62	6	12	18
34	7	32	39	63	4	8	12
35	8	25	33	64	8	8	16
36	3	29	32	65	3	3	6
37	11	26	37	66	5	3	8
38	6	23	29	67	4	6	10
39	2	27	29	68	0	0	0
40	7	22	29	69	0	4	4
41	7	26	33	70	0	1	1
42	3	26	29	71	0	0	0
43	6	35	41	72	0	1	1
44	7	29	36	73	1	0	1
45	8	22	30	74	1	0	1
46	10	24	34	75	0	0	0
47	4	21	25	76	0	0	0
48	11	24	35	77	1	0	1
49	11	21	32	Total	318	946	1,264



# TABLE 11 THE NUMBER OF INACTIVE DEFINED BENEFIT MEMBERS ELIGIBLE FOR FUTURE ALLOWANCES DISTRIBUTED BY AGE AS OF JULY 1, 2014

Age	Male	Female	Total	Age	Male	Female	Total	Age	Male	Female	Total
27	0	6	6	52	122	345	467	77	0	1	1
28	4	26	30	53	146	393	539	78	1	2	3
29	11	50	61	54	133	383	516	79	0	0	0
30	17	117	134	55	182	373	555	80	2	1	3
31	32	148	180	56	138	447	585	81	0	1	1
32	25	220	245	57	182	445	627	82	1	0	1
33	48	241	289	58	192	518	710	83	2	1	3
34	44	302	346	59	186	493	679	84	1	1	2
35	61	297	358	60	153	395	548	85	0	0	0
36	69	309	378	61	151	358	509	86	1	0	1
37	80	365	445	62	126	314	440	87	0	0	0
38	81	296	377	63	116	282	398	88	1	1	2
39	89	330	419	64	105	228	333	89	0	0	0
40	80	355	435	65	95	161	256	90	0	1	1
41	85	309	394	66	68	148	216	91	0	1	1
42	89	356	445	67	58	98	156	92	0	0	0
43	108	376	484	68	33	76	109	93	0	0	0
44	95	399	494	69	30	68	98	94	0	0	0
45	94	370	464	70	25	51	76	95	0	0	0
46	129	353	482	71	7	7	14	96	0	0	0
47	107	357	464	72	7	10	17	97	0	0	0
48	109	316	425	73	3	5	8	98	0	0	0
49	128	328	456	74	1	6	7	99	0	0	0
50	117	371	488	75	7	2	9	100	0	1	1
51	112	332	444	76	1	3	4	Total	4,090	12,549	16,639



# TABLE 12THE NUMBER OF INACTIVE DEFINED BENEFIT MEMBERSELIGIBLE FOR REFUNDS ONLY DISTRIBUTED BY AGE AS OF JULY 1, 2014

Age	Male	Female	Total	Age	Male	Female	Total	Age	Male	Female	Total
Unknown	115	2,552	2,667	49	1,233	2,045	3,278	81	5	3	8
18	2	0	2	50	1,276	1,933	3,209	82	4	2	6
19	0	8	8	51	1,246	2,028	3,274	83	0	3	3
20	3	10	13	52	1,147	1,937	3,084	84	1	1	2
21	12	16	28	53	1,204	2,043	3,247	85	0	3	3
22	24	52	76	54	1,119	1,878	2,997	86	1	1	2
23	85	284	369	55	1,266	1,988	3,254	87	0	1	1
24	253	627	880	56	1,186	1,967	3,153	88	1	2	3
25	440	937	1,377	57	1,222	1,898	3,120	89	2	2	4
26	603	1,227	1,830	58	1,132	1,774	2,906	90	1	1	2
27	769	1,674	2,443	59	1,239	1,741	2,980	91	2	0	2
28	823	1,711	2,534	60	1,145	1,687	2,832	92	0	1	1
29	957	1,979	2,936	61	1,132	1,545	2,677	93	2	1	3
30	1,030	1,973	3,003	62	1,062	1,527	2,589	94	1	1	2
31	1,073	2,255	3,328	63	1,002	1,375	2,377	95	0	1	1
32	1,144	2,347	3,491	64	860	1,210	2,070	96	0	0	0
33	1,152	2,404	3,556	65	860	1,020	1,880	97	0	1	1
34	1,247	2,455	3,702	66	744	836	1,580	98	1	0	1
35	1,261	2,356	3,617	67	764	901	1,665	99	2	0	2
36	1,153	2,292	3,445	68	422	528	950	100	0	1	1
37	1,141	2,185	3,326	69	403	459	862	101	0	2	2
38	1,163	1,946	3,109	70	303	375	678	102	1	1	2
39	1,134	1,966	3,100	71	60	62	122	103	1	0	1
40	1,116	1,910	3,026	72	35	30	65	104	0	3	3
41	1,157	1,961	3,118	73	31	26	57	105	0	1	1
42	1,255	2,047	3,302	74	16	15	31	106	0	0	0
43	1,209	2,427	3,636	75	22	23	45	107	1	1	2
44	1,303	2,264	3,567	76	15	16	31	108	1	1	2
45	1,258	2,145	3,403	77	13	7	20	109	0	1	1
46	1,159	2,075	3,234	78	10	5	15	Total	48,711	84,869	133,580
47	1,223	1,957	3,180	79	9	3	12				
48	1,238	1,908	3,146	80	4	2	6				



### TABLE 13 THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIREES AND BENEFICIARIES DISTRIBUTED BY AGE AS OF JULY 1, 2014

### SUPERANNUATION RETIREES

	Male			Female		Total			Male		Female		Total
Age	Number	Annuities	Number	Annuities	Number	Annuities	Age	Number	Annuities	Number	Annuities	Number	Annuities
48	0	0	1	31,779	1	31,779	79	1,069	47,888,354	1,641	51,510,132	2,710	99,398,486
49	5	272,040	1	99,960	6	372,000	80	964	43,233,070	1,373	43,420,824	2,337	86,653,894
50	4	224,093	14	653,728	18	877,820	81	925	40,404,471	1,408	43,546,384	2,333	83,950,855
51	30	1,619,522	49	2,226,149	79	3,845,670	82	869	37,133,043	1,245	36,803,416	2,114	73,936,459
52	97	4,937,145	227	10,613,259	324	15,550,404	83	847	36,008,416	1,336	38,414,751	2,183	74,423,166
53	155	7,944,030	364	16,871,079	519	24,815,109	84	729	30,283,125	1,217	33,804,902	1,946	64,088,027
54	191	9,667,239	494	22,943,553	685	32,610,792	85	674	26,641,839	1,089	29,904,263	1,763	56,546,102
55	309	15,554,126	665	30,868,072	974	46,422,198	86	542	21,786,998	976	25,199,475	1,518	46,986,472
56	365	19,322,695	889	41,964,059	1,254	61,286,754	87	466	17,039,953	943	24,235,757	1,409	41,275,710
57	585	32,872,162	1,227	61,391,793	1,812	94,263,955	88	404	14,575,223	756	18,340,956	1,160	32,916,179
58	653	36,686,040	1,649	86,226,681	2,302	122,912,721	89	383	14,755,112	661	15,876,201	1,044	30,631,314
59	834	49,178,109	1,972	104,352,568	2,806	153,530,677	90	283	10,468,989	598	13,279,338	881	23,748,327
60	1,042	57,068,852	2,640	128,550,608	3,682	185,619,461	91	192	6,704,473	491	11,157,781	683	17,862,254
61	1,362	75,075,605	3,294	159,532,366	4,656	234,607,971	92	137	4,904,169	398	8,474,388	535	13,378,557
62	1,617	90,235,540	3,995	191,257,752	5,612	281,493,292	93	99	3,519,688	355	7,103,561	454	10,623,249
63	1,855	106,182,147	4,526	213,208,257	6,381	319,390,403	94	90	3,190,189	259	5,323,629	349	8,513,817
64	2,067	114,320,529	4,587	216,240,070	6,654	330,560,599	95	52	1,606,586	208	4,116,914	260	5,723,500
65	2,283	126,461,324	4,805	218,954,594	7,088	345,415,918	96	42	1,492,032	169	3,537,766	211	5,029,798
66	2,523	136,581,477	4,761	215,690,947	7,284	352,272,424	97	18	412,997	119	2,303,320	137	2,716,317
67	2,911	158,301,298	5,012	223,171,183	7,923	381,472,482	98	9	135,615	82	1,487,203	91	1,622,819
68	1,940	106,938,143	3,372	148,025,069	5,312	254,963,213	99	9	389,129	60	1,237,939	69	1,627,069
69	1,866	99,675,144	3,149	133,595,343	5,015	233,270,486	100	7	206,911	39	866,787	46	1,073,698
70	1,902	100,010,571	3,096	127,847,313	4,998	227,857,884	101	3	145,854	34	719,475	37	865,329
71	2,093	109,697,092	3,443	137,901,762	5,536	247,598,853	102	0	0	17	275,093	17	275,093
72	1,753	91,864,792	2,845	110,573,469	4,598	202,438,260	103	0	0	15	269,459	15	269,459
73	1,584	79,836,144	2,458	94,496,750	4,042	174,332,894	104	0	0	11	179,558	11	179,558
74	1,415	71,828,794	2,246	83,745,037	3,661	155,573,832	105	0	0	4	97,411	4	97,411
75	1,363	67,891,114	2,177	79,122,780	3,540	147,013,894	106	0	0	0	0	0	0
76	1,292	64,309,954	2,170	77,293,968	3,462	141,603,922	107	0	0	1	18,308	1	18,308
77	1,220	58,894,027	1,895	63,496,502	3,115	122,390,529	108	0	0	1	50,898	1	50,898
78	1,152	54,042,548	1,711	56,269,983	2,863	110,312,531	Total	45,281	2,310,418,533	85,240	3,478,772,321	130,521	5,789,190,853

# State Teachers Retirement System of Ohio

### TABLE 14 THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIREES AND BENEFICIARIES DISTRIBUTED BY AGE AS OF JULY 1, 2014

#### DISABILITY RETIREES

	Male			Female		Total			Male		Female		Total
Age	Number	Annuities	Number	Annuities	Number	Annuities	Age	Number	Annuities	Number	Annuities	Number	Annuities
30	0	0	1	16,657	1	16,657	66	94	4,143,950	169	6,353,312	263	10,497,262
31	1	23,366	1	19,100	2	42,466	67	106	4,713,603	167	6,269,652	273	10,983,255
32	1	19,228	1	17,162	2	36,390	68	81	3,572,031	129	4,472,280	210	8,044,311
33	0	0	1	16,202	1	16,202	69	77	3,231,944	115	4,388,342	192	7,620,285
34	2	52,119	4	115,839	6	167,958	70	68	2,787,546	117	4,170,797	185	6,958,343
35	0	0	6	131,303	6	131,303	71	78	3,068,441	120	4,311,835	198	7,380,276
36	2	48,759	6	143,358	8	192,118	72	57	2,203,009	111	3,737,351	168	5,940,360
37	1	19,628	4	93,928	5	113,555	73	53	2,142,860	78	2,654,447	131	4,797,307
38	0	0	8	181,881	8	181,881	74	45	2,038,623	80	2,479,917	125	4,518,540
39	3	80,755	14	332,839	17	413,595	75	44	1,700,191	72	2,398,104	116	4,098,294
40	2	49,362	8	196,080	10	245,442	76	39	1,335,919	75	2,264,365	114	3,600,284
41	2	43,853	14	367,541	16	411,395	77	37	1,399,366	62	1,626,128	99	3,025,494
42	3	64,702	12	306,545	15	371,247	78	44	1,567,181	70	2,028,751	114	3,595,932
43	4	119,854	21	554,720	25	674,574	79	35	1,208,400	62	1,796,253	97	3,004,653
44	2	47,733	19	529,579	21	577,312	80	36	1,272,451	40	1,123,786	76	2,396,237
45	4	102,528	25	853,455	29	955,983	81	27	951,579	36	1,028,671	63	1,980,250
46	4	150,310	26	827,058	30	977,368	82	29	1,115,779	39	977,600	68	2,093,379
47	7	183,255	37	1,431,807	44	1,615,062	83	34	1,063,150	41	984,334	75	2,047,484
48	13	460,648	34	1,345,814	47	1,806,461	84	13	496,077	41	885,186	54	1,381,262
49	16	749,092	50	2,019,990	66	2,769,082	85	15	519,505	32	738,628	47	1,258,133
50	17	631,938	48	1,860,907	65	2,492,845	86	19	550,516	33	717,103	52	1,267,618
51	22	788,198	46	1,872,872	68	2,661,070	87	14	410,423	25	606,704	39	1,017,127
52	19	855,634	65	2,482,408	84	3,338,042	88	8	309,333	16	335,653	24	644,986
53	25	1,000,870	76	2,944,212	101	3,945,083	89	9	229,044	20	343,194	29	572,237
54	25	1,086,253	71	2,785,802	96	3,872,055	90	5	166,266	15	321,746	20	488,012
55	27	1,184,382	78	3,133,414	105	4,317,796	91	2	77,462	11	203,428	13	280,890
56	30	1,302,428	78	2,957,472	108	4,259,900	92	2	60,477	14	255,528	16	316,004
57	33	1,448,431	95	3,469,767	128	4,918,199	93	3	79,979	12	251,785	15	331,764
58	37	1,477,045	118	4,186,504	155	5,663,550	94	1	27,923	6	127,053	7	154,976
59	47	1,905,888	132	5,050,536	179	6,956,424	95	1	12,907	6	136,186	7	149,093
60	47	1,794,835	138	5,135,490	185	6,930,325	96	1	37,395	3	89,916	4	127,311
61	71	2,905,895	171	6,415,124	242	9,321,018	97	0	0	1	12,578	1	12,578
62	73	3,095,586	174	6,291,664	247	9,387,250	98	1	32,557	0	0	1	32,557
63	79	3,421,411	202	7,285,044	281	10,706,454	99	0	0	0	0	0	0
64	76	3,393,315	191	7,062,478	267	10,455,793	100	1	38,007	0	0	1	38,007
65	93	3,940,825	165	6,440,513	258	10,381,338	Total	1,867	75,012,019	3,958	136,965,676	5,825	211,977,696

# State Teachers Retirement System of Ohio

# TABLE 15 THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIREES AND BENEFICIARIES DISTRIBUTED BY AGE AS OF JULY 1, 2014

### **CONTINGENT RETIREES**

	Male			Female		Total			Male		Female		Total
Age	Number	Annuities	Number	Annuities	Number	Annuities	Age	Number	Annuities	Number	Annuities	Number	Annuities
15 or less	0	0	5	37,392	5	37,392	62	57	2,348,554	30	750,191	87	3,098,745
16	0	0	0	0	0	0	63	69	2,438,723	35	1,031,269	104	3,469,992
17	0	0	1	11,964	1	11,964	64	97	3,812,367	44	1,368,507	141	5,180,874
18	0	0	0	0	0	0	65	91	3,769,142	45	1,492,311	136	5,261,453
19	0	0	1	11,964	1	11,964	66	115	4,277,051	64	1,980,341	179	6,257,392
20	0	0	1	16,907	1	16,907	67	159	6,114,052	74	2,125,432	233	8,239,484
21	0	0	0	0	0	0	68	110	4,316,167	46	1,311,709	156	5,627,876
22	0	0	0	0	0	0	69	141	5,455,520	58	1,639,877	199	7,095,398
23	0	0	2	32,497	2	32,497	70	164	6,105,790	53	1,412,467	217	7,518,257
24	1	44,774	1	6,513	2	51,287	71	202	7,531,461	75	1,986,534	277	9,517,995
25	2	83,427	0	0	2	83,427	72	213	8,024,423	76	2,065,376	289	10,089,798
26	0	0	3	30,813	3	30,813	73	234	8,577,638	61	1,751,127	295	10,328,766
27	0	0	2	19,465	2	19,465	74	175	5,883,071	59	1,486,833	234	7,369,904
28	0	0	3	54,167	3	54,167	75	228	7,781,228	64	1,528,615	292	9,309,844
29	1	18,499	4	76,164	5	94,664	76	246	8,331,697	79		325	10,213,692
30	0	0	1	44,659	1	44,659	77	267	8,002,041	84	1,635,166	351	9,637,207
31	1	17,569	5	34,535	6	52,104	78	259	8,257,432	65	1,180,059	324	9,437,491
32	2	40,391	3	85,680	5	126,071	79	314	9,361,109	83	1,781,726	397	11,142,834
33	0	0	2	6,799	2	6,799	80	261	7,757,886	69	1,271,218	330	9,029,104
34	1	4,160	2	24,242	3	28,402	81	286	8,914,563	82	1,604,514	368	10,519,077
35	0	0	6	107,336	6	107,336	82	299	8,201,596	97	1,773,117	396	9,974,712
36	1	17,015	2	12,084 35,751	3	29,100	83	319	9,387,676	98 404	1,585,643	417	10,973,319
37	2	89,322 19,202	3	91,864	5 5	125,073 111,066	84 85	371 310	10,384,872	101	1,436,891	472 410	11,821,764 9,436,577
38 39	1	15,841	4	135,959	5	151,801	86	310	8,153,312 7,872,555	100 118	1,283,265 1,517,100	410	9,389,655
40	1	10,038	1	3,536	2	13,574	87	262	7,163,413	89	1,174,230	351	8,337,644
40	0	0	2	32,313	2	32,313	88	257	7,081,318	80	1,094,572	337	8,175,889
41	1	23,227	2 4	63,901	5	87,128	89	256	6,830,951	76		332	7,733,313
43	5	148,750	6	76,293	11	225,043	90	200	4,986,898	70	885,125	273	5,872,023
44	3	118,043	8	103,888	11	221,931	91	165	3,738,072	57	695,504	222	4,433,577
45	4	92,886	7	64,821	11	157,707	92	154	3,557,536	40	607,017	194	4,164,552
46	2	17,743	8	115,885	10	133,627	93	110	2,696,755	48	496,764	158	3,193,519
47	4	169,345	12	93,426	16	262,771	94	74	1,629,775	29	291,821	103	1,921,597
48	5	152,001	4	21,209	9	173,210	95	59	1,493,742	20		79	
49	8	284,461	7	166,316	15	450,777	96	56	1,211,814	15		71	1,318,061
50	8	195,646	9	168,705	17	364,351	97	30	495,663	14	134,648	44	630,311
51	7	303,516	8	92,411	15	395,928	98	33	692,058	8	67,824	41	759,882
52	14	556,754	12	143,859	26	700,614	99	15	326,941	7	126,183	22	453,124
53	7	299,707	15	206,749	22	506,456	100	12	257,097	4	38,062	16	
54	14	603,577	9	81,525	23	685,102	101	10	286,012	1	12,040	11	298,053
55	24	903,778	9	91,685	33	995,463	102	5	102,750	0	0	5	102,750
56	19	733,011	11	142,603	30	875,615	103	1	44,770	0	0	1	44,770
57	19	797,340	20	483,107	39	1,280,447	104	1	11,819	2	30,258	3	42,077
58	17	662,884	18	328,148	35	991,032	105	1	32,176	0	0	1	32,176
59	25	1,040,930	23	516,532	48	1,557,462	106	1	11,753	0	0	1	11,753
60	45	1,538,431	29	709,029	74	2,247,460	Total	7,306	225,355,666	2,639	\$51,406,849	9,945	\$276,762,515
61	61	2,642,153	39	1,077,732	100	3,719,886							$\mathbf{X}$

 $\star$  Segal Consulting

# State Teachers Retirement System of Ohio

## TABLE 16 THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIREES AND BENEFICIARIES DISTRIBUTED BY AGE AS OF JULY 1, 2014

# BENEFICIARIES RECEIVING ALLOWANCES UNDER SURVIVORS' BENEFIT FUND

	Male			Female		Total			Male		Female		Total
Age	Number	Annuities	Number	Annuities	Number	Annuities	Age	Number	Annuities	Number	Annuities	Number	Annuities
15 or less	127	1,228,996	214	1,560,366	341	2,789,362	61	65	1,678,351	67	1,600,058	132	3,278,409
16	24	257,530	31	228,851	55	486,382	62	74	2,004,195	84	1,773,424	158	3,777,618
17	18	176,198	40	352,832	58	529,030	63	82	2,305,710	70	1,466,642	152	3,772,352
18	25	295,053	42	313,983	67	609,036	64	75	2,051,947	101	2,453,937	176	4,505,884
19	24	282,468	36	386,848	60	669,316	65	98	2,644,031	82	2,080,989	180	4,725,020
20	34	442,035	38	342,804	72	784,839	66	78	1,995,153	82	1,756,433	160	3,751,586
21	23	236,353	19	149,975	42	386,328	67	125	3,524,243	120	2,606,998	245	6,131,242
22	0	0	0	0	0	0	68	81	2,211,539	78	1,659,222	159	3,870,761
23	0	0	1	5,838	1	5,838	69	98	2,439,048	67	1,436,738	165	3,875,786
24	1	26,940	0	0	1	26,940	70	92	2,411,919	67	1,383,386	159	3,795,305
25	2	65,275	1	2,289	3	67,564	71	97	2,646,237	81	1,638,204	178	4,284,441
26	0	0	3	37,067	3	37,067	72	73	1,977,828	88	1,685,674	161	3,663,502
27	4	39,151	0	0	4	39,151	73	80	2,306,274	70	1,463,289	150	3,769,563
28	1	7,816	1	6,342	2	14,158	74	57	1,494,216	59	1,192,809	116	2,687,025
29	1	13,400	2	19,453	3	32,852	75	69	1,697,706	59	891,869	128	2,589,575
30	0	0	1	8,428	1	8,428	76	91	2,156,172	77	1,321,128	168	3,477,301
31	1	9,741	2	16,231	3	25,972	77	79	1,739,848	53	873,913	132	2,613,761
32	3	35,697	2	21,654	5	57,350	78	81	1,982,016	57	1,070,589	138	3,052,605
33	5	60,031	1	7,994	6	68,025	79	71	1,831,080	58	979,947	129	2,811,027
34	1	20,461	4	49,171	5	69,632	80	76	1,617,274	47	823,576	123	2,440,850
35	1	11,343	1	9,815	2	21,157	81	58	1,119,160	47	908,301	105	2,027,461
36	3	46,772	3	35,055	6	81,827	82	58	1,097,444	45	737,088	103	1,834,532
37	3	48,064	3	36,563	6	84,627	83	74	1,603,699	52	731,914	126	2,335,612
38	2	21,191	8	102,542	10	123,733	84	71	1,472,545	45	827,167	116	2,299,711
39	6	84,628	3	40,351	9	124,978	85	53	1,369,539	42	508,505	95	1,878,044
40	7	115,392	7	75,943	14	191,334	86	61	1,352,298	48	747,443	109	2,099,741
41	4	57,446	8	123,231	12	180,678	87	54	1,068,577	33	463,841	87	1,532,418
42	7	93,525	14	186,219	21	279,745	88	48	841,739	35	450,029	83	1,291,768
43	7	198,572	7	109,215	14	307,787	89	36	666,101	36	549,797	72	1,215,898
44	9	117,547	8	97,285	17	214,832	90	26	550,135	21	291,179	47	841,314
45	16	264,530	15	194,824	31	459,354	91	23	467,627	18	323,538	41	791,165
46	11	191,962	16	228,566	27	420,529	92	24	476,629	14	206,790	38	683,418
47	13	314,449	16	200,448	29	514,897	93	16	342,040	10	115,164	26	457,204
48	10	180,167	22	297,156	32	477,323	94	14	221,028	11	164,272	25	385,300
49	12	228,325	15	197,376	27	425,701	95	8	128,296	5	85,989	13	214,285
50	16	358,336	19	322,375	35	680,711	96	5	107,829	3	44,545	8	152,374
51	28	604,812	21	348,059	49	952,872	97	6	158,101	0	0	6	158,101
52	18	406,858	26	453,979	44	860,837	98	3	32,241	2	33,407	5	65,648
53	19	339,169	20	298,282	39	637,451	99	1	34,432	4	67,524	5	101,956
54	23	537,850	25	495,771	48	1,033,621	100	3	56,896	1	8,780	4	65,676
55	22	453,574	34	546,587	56	1,000,161	101	0	0	0	0	0	0
56	38	1,029,096	37	748,650	75	1,777,746	102	0	0	1	7,220	1	7,220
57	30	877,177	20	482,888	50	1,360,066	103	0	0	1	6,633	1	6,633
58	31	648,736	42	867,469	73	1,516,205	104	0	0	0	0	0	0
59	44	1,260,357	54	1,185,577	98	2,445,934	105	1	4,246	0	0	1	4,246
60	65	1,882,657	70	1,516,835	135	3,399,492	Total	3,024	69,455,069	2,893	50,149,135	5,917	119,604,204

★ Segal Consulting