

**SCHOOL EMPLOYEES RETIREMENT SYSTEM  
OF OHIO**

**REPORT ON THE ANNUAL ACTUARIAL VALUATION  
AND  
GAIN/LOSS ANALYSIS OF FINANCIAL EXPERIENCE**

**PREPARED AS OF JUNE 30, 2005**



November 9, 2005

Board of Trustees  
School Employees' Retirement  
System of Ohio  
300 East Broad St., Suite 100  
Columbus, OH 43215-3746

Dear Members of the Board:

Presented in this report are the results of the annual actuarial valuation and the annual gain/loss analysis of financial experience of the basic benefits of the School Employees Retirement System of Ohio. The purpose of the valuation is to measure the System's funding progress and to determine the required actuarial level of contributions for the basic benefits of SERS for the year ending June 30, 2005. The gain/loss analysis details the difference between the actual and the expected unfunded actuarial accrued liabilities and shows the breakdown of the overall gain/loss by economic and non-economic risk areas.

The date of the valuation was June 30, 2005.

The valuation was based upon data, furnished by the Executive Director and the SERS staff, concerning active, inactive and retired members along with pertinent financial information. The complete cooperation of the SERS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of contribution rates on page 1 and the comments on page 7 as well as the breakdown of the overall gain (loss) by risk area on pages 10 and 11. Additional gain/loss detail can be found in the appendix.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent qualified actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board and generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are individually and in the aggregate internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

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valuation2005.doc

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**REPORT ON THE ANNUAL VALUATION OF THE  
SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO  
PREPARED AS OF JUNE 30, 2005**

**SECTION I - SUMMARY OF PRINCIPAL RESULTS**

1. This report, prepared as of June 30, 2005, presents the results of the annual actuarial valuation of the System which values the basic benefit provisions including post-retirement death benefits and Medicare Part-B reimbursements. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below.

**SUMMARY OF PRINCIPAL RESULTS**

<b>VALUATION DATE</b>	<b>06/30/05</b>	<b>06/30/04</b>
Active members included in valuation		
Number	122,855	123,139
Annual compensation	\$ 2,452,534,537	\$ 2,394,125,140
Retirees		
Number	61,433	60,569
Annual allowances	\$ 527,931,968	\$ 491,618,849
Deferred Vesteds		
Number	9,519	9,121
Annual deferred allowances	\$ 29,136,295	\$ 26,048,188
Assets (net of Health Care Assets)		
Market related actuarial value	\$ 8,892,564,844	\$ 8,666,538,476
Market value	\$ 9,001,585,552	\$ 8,264,582,923
Unfunded accrued liability	\$ 3,136,876,011	\$ 2,584,340,799
Employer contribution rate		
Normal	4.73%	4.69%
Accrued liability	<u>6.97</u>	<u>5.88</u>
Total	11.70%	10.57%
Accrued liability payment period	30 years	30 years

2. The Board has set a total contribution rate of 24% of payroll, 14% from employers and 10% from employees. Contributions in excess of those required to support the basic benefits of SERS are allocated to support health care benefits provided SERS retirees.
3. The valuation balance sheet showing the results of the valuation is given in Section III.

4. Comments on the valuation results are given in Section IV, comments on the experience and actuarial gains or losses during the valuation year are given in Section V and the rates of contribution payable by employers are given in Section VI.
5. There were no changes in benefit provisions, actuarial assumptions, or methods since the last valuation.
6. Schedule A of this report presents the development of the actuarial value of assets. Schedule B details the actuarial assumptions and methods employed. Schedule C gives a summary of the benefit and contribution provisions of the plan.
7. The table on the following page provides a history of some pertinent figures.
8. All historical information and data shown in this report with a valuation date prior to June 30, 2002 were obtained from the previous actuary's valuation report.
9. Valuations results as of June 30, 2001 were restated by the previous actuary after issuance of the valuation report. This report reflects those restatements.
10. The valuation results produce an employer contribution requirement of 11.70% of payroll. This contribution rate includes an adjustment due to a restatement of health care assets. It was determined by SERS staff that the cumulative effect of the restatement would increase the health care fund balance by \$68,423,261 as of June 30, 2005. Although this amount will be credited on a monthly basis to the health care fund through June 2007, annual valuations will recognize this adjustment over a 30-year period from June 2005, resulting in an increase in the required pension contribution of 0.15% of payroll for this valuation year.

School Employees Retirement System of Ohio

Comparative Schedule

Valuation Date June 30	Active Members				Retired Lives				Accrued Liability	Valuation Assets \$ Millions	UAAL
	Number	Payroll \$ Millions	Average Salary		Number		Annual Benefits				
			\$	% Incr.	Retired	Active/ Retired	\$ Millions	% of Payroll			
1999	110,175	\$1,768	\$16,048	3.8%	56,632	1.9	\$350.6	19.8%	\$7,535	\$7,332	\$203
2000	113,811	1,866	16,398	2.2	57,824	2.0	376.7	20.2	7,919	8,100	(181)
2001	115,684	1,974	17,065	4.1	58,795	2.0	404.5	20.5	9,257	8,791	466
2002	120,254	2,176	18,093	6.0	59,349	2.0	432.2	19.9	9,986	8,879	1,107
2003	122,315	2,302	18,823	4.0	59,999	2.0	461.2	20.0	10,635	8,772	1,863
2004	123,139	2,394	19,442	3.3	60,569	2.0	491.6	20.5	11,251	8,667	2,584
2005	122,855	2,453	19,963	2.7	61,433	2.0	527.9	21.5	11,961	8,893	3,137*

\* \$3,068.5 prior to the adjustment to reflect health care asset restatement of \$68.4 million.

## SECTION II - MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following tables summarize the membership of the system as of June 30, 2005 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

### Active Members

Number	Payroll	Group Averages		
		Salary	Age	Service
122,855	\$ 2,452,534,537	\$ 19,963	46.7	9.0

The total number of active members includes 73,274 vested members and 49,581 non-vested members.

### Retired Lives

Type of Benefit Payment	No.	Annual Benefits	Group Averages	
			Benefit	Age
Retirement	52,090	\$ 445,247,935	\$ 8,548	74.4
Disability	5,192	59,199,374	11,402	63.0
Survivor	4,151	23,484,659	5,654	70.2
<b>Total in SERS</b>	<b>61,433</b>	<b>\$ 527,931,968</b>	<b>\$ 8,593</b>	<b>73.2</b>

This valuation also includes 82,271 inactive members eligible for a contribution refund only (including 35,487 members not reported in the data files who had completed 1 or more years of service before terminating). Their contributions totaled \$121,240,465 as of June 30, 2005. In addition, there are 8,491 re-employed retirants with contributions of \$21,153,363, and 9,519 terminated vested members with annual deferred pension benefits of \$29,136,295 .

**SECTION III - VALUATION BALANCE SHEET**

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of June 30, 2005 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2004. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.



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

<b>ASSETS</b>	<b>JUNE 30, 2005</b>	<b>JUNE 30, 2004</b>
Current actuarial value of assets	\$ 8,892,564,844	\$ 8,666,538,476
Future member contributions	\$ 2,080,050,190	\$ 2,058,536,804
Prospective employers' contributions		
Normal contributions	\$ 912,853,180	\$ 900,909,344
Unfunded accrued liability contributions *	\$ <u>3,068,452,750</u>	\$ <u>2,584,340,799</u>
Total prospective contributions	\$ 3,981,305,930	\$ 3,485,250,143
<b>Total assets</b>	<b>\$ <u>14,953,920,964</u></b>	<b>\$ <u>14,210,325,423</u></b>
<b>LIABILITIES</b>		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 5,550,872,161	\$ 5,173,265,691
Present value of benefits payable on account of active members	8,992,870,144	8,699,838,197
Present value of benefits payable on account of inactive and deferred vested members for service rendered before the valuation date	410,178,659	337,221,535
<b>Total liabilities</b>	<b>\$ <u>14,953,920,964</u></b>	<b>\$ <u>14,210,325,423</u></b>

\* prior to reflecting the restatement of health care assets

## **SECTION IV - COMMENTS ON VALUATION**

The valuation balance sheet gives the following information with respect to the funds of the System as of June 30, 2005.

### Total Assets

Current actuarial assets as of the valuation date equaled \$8,892,564,844. Future member contributions were valued to be \$2,080,050,190. Prospective employers' contributions were calculated to be \$3,981,305,930, of which \$912,853,180 is attributable to service rendered after the valuation date (normal contributions) and \$3,068,452,750 is attributable to service rendered before the valuation date (unfunded accrued liability contributions).

Therefore, the balance sheet shows the present value of current and future assets of the System to be \$14,953,920,964 as of June 30, 2005.

### Total Liabilities

The present value of benefits payable on account of presently retired members and beneficiaries totaled \$5,550,872,161 as of the valuation date. The present value of future benefit payments on behalf of active members amounted to \$8,992,870,144. In addition, the present value of benefits for inactive members, due to service rendered before the valuation date, was calculated to be \$410,178,659.

Therefore, the balance sheet shows the present value for all prospective benefit payments under the System to be \$14,953,920,964 as of June 30, 2005.

Section 3309.47 of State law requires that active members contribute 8% of annual compensation to the System, but the Board has the authority to raise the rate to 10%. Effective July 1, 2003 the rate was increased from 9% to 10% of compensation.

Section 3309.49 requires that the employers contribute a certain percentage of the annual compensation of members to cover the normal contributions and a certain percentage to cover the accrued liability contributions of the System. These individual contribution percentages are established in accordance with an actuarial valuation. The sum of these normal and accrued liability contributions shall not exceed 14% of the annual compensation of all members.

The following table provides a breakdown of total and accrued liabilities, and shows the resulting unfunded actuarial accrued liability.

	<b>Total Liability</b>	<b>Accrued Liability</b>
Active Members		
Retirement	\$7,462,495,042	\$ 5,570,703,799
Death	125,040,659	80,745,276
Disability	747,384,748	368,057,722
Termination	504,602,405	(122,021,719)
Medicare Part-B	144,126,668	97,160,358
Death After Retirement	<u>9,220,622</u>	<u>5,321,338</u>
Total	\$8,992,870,144	\$ 5,999,966,774
Benefit Recipients		
Retirement/Survivor/Disability	\$5,333,410,385	\$5,333,410,385
Medicare Part-B	196,799,784	196,799,784
Death After Retirement	<u>20,661,992</u>	<u>20,661,992</u>
Total	\$5,550,872,161	\$5,550,872,161
Deferred Vested Members	221,097,844	221,097,844
Inactive Members	<u>189,080,815</u>	<u>189,080,815</u>
Total Actuarial Values	\$ 14,953,920,964	\$ 11,961,017,594
Actuarial Value of Assets		<u>8,892,564,844</u>
Unadjusted Unfunded Actuarial Accrued Liability		\$3,068,452,750
Adjustment for Restatement of Health Care Assets		\$68,423,261
Adjusted Unfunded Actuarial Accrued Liability		\$3,136,876,011

## SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common.

The sources of gains and losses are shown in detail on the next two pages. A summary of the overall net actuarial gain or loss for the year ended June 30, 2005 is shown below.

		<u>\$ millions</u>
(1)	UAAL* as of June 30, 2004	\$2,584.3
(2)	Normal cost from last valuation	115.2
(3)	Actual employer contributions	274.1
(4)	Interest accrual: $(1) \times .0825 + [(2) - (3)] \times .0404$	206.8
(5)	Expected UAAL before changes: $(1) + (2) - (3) + (4)$	2,632.2
(6)	Change due to plan amendments	0.0
(7)	Change due to new actuarial assumptions	0.0
(8)	Change due to new actuarial methods	0.0
(9)	Change due to restatement of health care assets	68.4
(10)	Expected UAAL after changes: $(5) + (6) + (7) + (8) + (9)$	2,700.6
(11)	Actual UAAL as of June 30, 2005	3,136.9
(12)	Gain (loss) $(10) - (11)$	\$(436.3)
(13)	Gain (loss) as percent of actuarial accrued liabilities at start of year (\$11,250.9)	(3.9)%

\* Unfunded actuarial accrued liability.

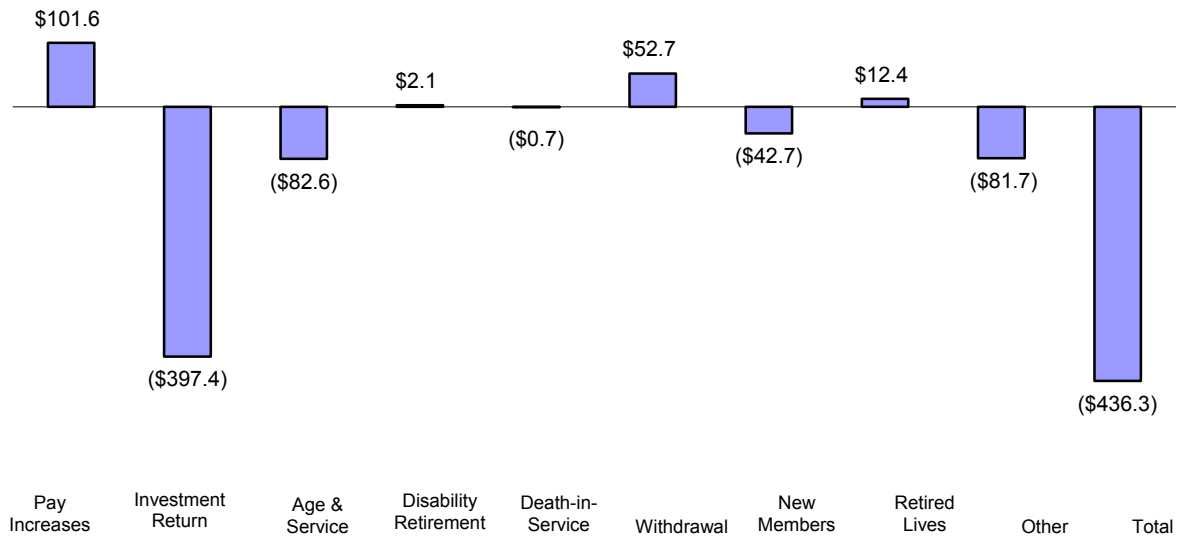
## ANALYSIS OF FINANCIAL EXPERIENCE

### Gains & Losses in Accrued Liabilities Resulting from Differences Between Assumed Experience & Actual Experience As of June 30, 2005 (\$ Millions)

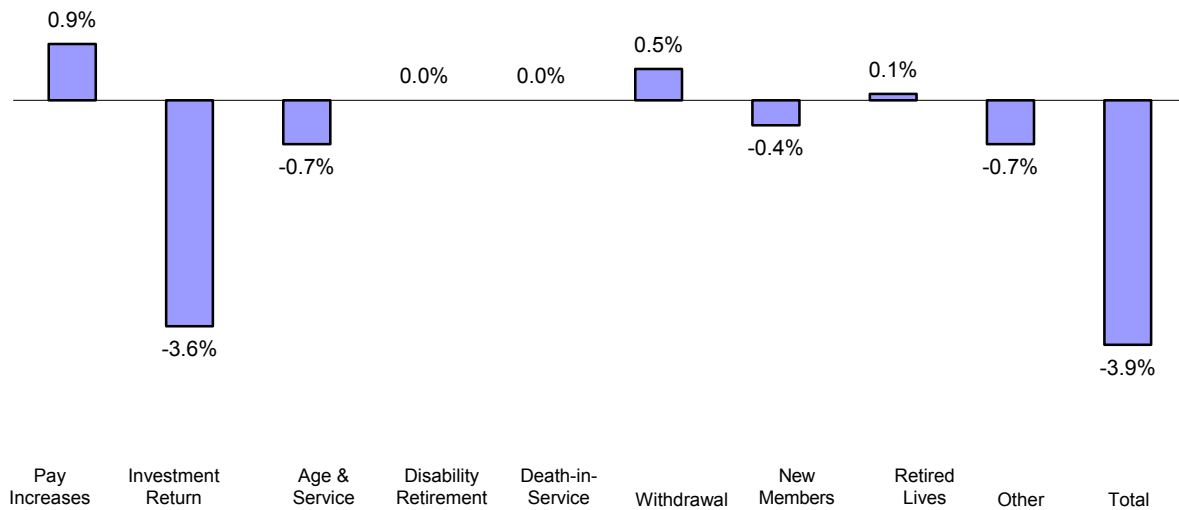
Beginning of Year Accrued Liabilities	\$11,250.9	100.0%
		<b>Gain (Loss) as a % of Accrued Liabilities</b>
<b>Type of Risk Area</b>	<b><u>\$ Gain (Loss)</u></b>	
<b><u>Economic Risk Areas</u></b>		
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	\$101.6	0.9%
<b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(397.4)	(3.6)
<b><u>Non-Economic Risk Areas</u></b>		
<b>Age &amp; Service Retirements.</b> If members retire at older ages, there is a gain. If younger ages, a loss.	(82.6)	(0.7)
<b>Disability Retirements.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	2.1	0.0
<b>Death-in Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.7)	0.0
<b>Withdrawal From Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	52.7	0.5
<b>New Members.</b> Additional unfunded accrued liability will produce a loss.	(42.7)	(0.4)
<b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	12.4	0.1
<b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	<u>(81.7)</u>	<u>(0.7)</u>
<b>Gain (or Loss) During Year From Financial Experience</b>	\$(436.3)	(3.9)%
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes, or method changes.	<u>0.0</u>	<u>0.0</u>
<b>Composite Gain (or Loss) During Year</b>	<u>\$(436.3)</u>	<u>(3.9)%</u>

**OHIO SERS  
GAIN (LOSSES) BY RISK AREA  
During the Twelve Months Ended June 30, 2005**

**Type of Risk Area**



**% of Accrued Liabilities**



**SECTION VI – REQUIRED CONTRIBUTION RATES**

The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by employers to the Retirement System. The following table shows the rates of contribution payable by employers as determined from the present valuation for the 2005-2006 fiscal year.

**BREAKDOWN OF REQUIRED CONTRIBUTIONS**

(expressed as percents of payroll)

	<b>Basic Benefits</b>	<b>Post Retirement Death Benefit</b>	<b>Medicare Part-B</b>	<b>Total</b>
Normal Cost				
Service Retirement Benefits	9.36%			
Disability Benefits	1.81			
Survivor Benefits	0.23			
Refunds	<u>3.02</u>			
Total	14.42%	0.02%	0.29%	14.73%
UAAL Payment	6.54	0.01	0.42	6.97
Total Contribution	20.96%	0.03%	0.71%	21.70%
Member Contribution	10.00%	0.00	0.00	10.00%
<b>Employer Contribution</b>	<b>10.96%</b>	<b>0.03%</b>	<b>0.71%</b>	<b>11.70%</b>

**SECTION VII- SUPPLEMENTAL DISCLOSURE INFORMATION**

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

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS  
AS OF JUNE 30, 2005**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	61,436
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	91,790
Active Participants	<u>122,855</u>
Total	276,081

2. Another such item is the schedule of funding progress as shown below.

**SCHEDULE OF FUNDING PROGRESS  
(\$ Thousands)**

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2)-(1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
06/30/96#*	\$4,777,498	\$6,128,781	78.0%	\$1,351,283	\$1,475,873	91.6%
06/30/97*	5,521,248	6,504,638	84.9	983,390	1,551,609	63.4
06/30/98^	6,412,649	7,037,449	91.1	624,800	1,651,883	37.8
06/30/99+	7,331,692	7,534,903	97.3	203,211	1,768,098	11.5
06/30/00	8,281,286	8,100,427	102.2	(180,859)	1,866,283	(9.7)
06/30/01#^	8,790,858	9,256,656	95.0	465,798	1,974,097	23.6
06/30/02	8,878,760	9,986,306	88.9	1,107,546	2,175,735	50.9
06/30/03^	8,771,784	10,634,474	82.5	1,862,690	2,302,289	80.9
06/30/04	8,666,538	11,250,879	77.0	2,584,341	2,394,125	107.9
06/30/05	8,892,565	11,961,018	74.3	3,136,876**	2,452,535	127.9

^ After change in benefit provisions.

# After change in actuarial assumptions.

\*\* After restatement of health care assets

\* After change in asset method.

+ After change in method.



3. The annual required contribution (ARC) of the employer as a percentage of payroll, determined in accordance with the parameters of GASB 25/27, is shown below. The accrued liability rate is based on amortization of the unfunded actuarial accrued liability of \$3,136,876,011 over a 30-year period from the valuation date.

**2005-2006 FISCAL YEAR  
ANNUAL REQUIRED CONTRIBUTION (ARC)  
BASED ON THE VALUATION AS OF JUNE 30, 2005**

ANNUAL REQUIRED CONTRIBUTION (ARC)	RATE
Normal	4.73%
Accrued liability	<u>6.97</u>
Total	11.70%

4. Additional information as of June 30, 2005 follows.

Valuation date	06/30/05
Actuarial cost method	Entry age
Amortization method	Level percent open
Remaining amortization period	30 years
Asset valuation method	4-year smoothed market
Actuarial assumptions:	
Investment rate of return*	8.25%
Projected salary increases*	4.75 - 25.00%
*Includes inflation at	3.75%
Cost-of-living adjustments	3.00%

### Schedule of Employer Contributions

<b>Fiscal Year 7-1/6-30</b>	<b>Valuation Date 6-30</b>	<b>Annual Required Contribution</b>	<b>Percentage Contributed</b>
1996-97	1996	\$144,487,949	100%
1997-98	1997	139,955,108	100
1998-99	1998	127,195,004	100
1999-00	1999	98,148,589	100
2000-01	2000	78,459,360	100
2001-02	2001	110,795,693	100
2002-03	2002	181,236,112	100
2003-04	2003	212,193,468	100
2004-05	2004	256,046,087	100
2005-06	2005	294,035,898	

Solvency Tests  
(\$ in Millions)

June 30	Actuarial Accrued Liabilities for			Net Assets Available for Benefits	Portions of Accrued Liabilities covered by Assets		
	(1) Accumulated Employee and Inactive Contributions	(2) Retirees and Beneficiaries Currently Receiving Benefits	(3) Active and Inactive Members Employer Financed Portion		(1)	(2)	(3)
1996	\$1,105	\$2,790	\$2,234	\$4,777	100%	100%	39.5%
1997	1,177	2,996	2,332	5,521	100	100	57.8
1998	1,255	3,269	2,513	6,413	100	100	75.2
1999	1,341	3,469	2,725	7,332	100	100	92.6
2000	1,429	3,734	2,937	8,281	100	100	106.2
2001	1,407	4,294	3,556	8,791	100	100	86.9
2002	1,525	4,599	3,862	8,879	100	100	71.3
2003	1,643	4,881	4,110	8,772	100	100	54.7
2004	1,785	5,173	4,293	8,667	100	100	39.8
2005	1,943	5,551	4,467	8,893	100	100	31.3

## Schedule of Active Member Valuation Data

Valuation Date	Active members			
	Number	Annual Payroll (in millions)	Annual Average Pay	% Increase in Average Pay
1996	101,777	\$1,475.9	\$14,501	2.2%
1997	103,739	1,551.6	14,957	3.1
1998	109,878	1,651.9	15,456	3.3
1999	110,175	1,768.1	16,048	3.8
2000	113,811	1,866.3	16,398	2.2
2001	115,684	1,974.1	17,065	4.1
2002	120,254	2,175.7	18,093	6.0
2003	122,315	2,302.3	18,823	4.0
2004	123,139	2,394.1	19,442	3.3
2005	122,855	2,452.5	19,963	2.7

## Schedule of Retirants Added to And Removed From Rolls

Item	Fiscal year ended June 30								
	1997	1998	1999	2000	2001	2002	2003	2004	2005
Beginning of Year	53,478	54,554	55,563	56,632	57,824	58,795	59,349	59,999	60,569
Added	3,993	4,174	4,127	4,647	4,051	3,977	3,414	3,013	3,683
Removed	(2,917)	(3,165)	(3,058)	(3,455)	(3,080)	(3,423)	(2,764)	(2,443)	(2,819)
End of Year	54,554	55,563	56,632	57,824	58,795	59,349	59,999	60,569	61,433

## SCHEDULE A

### Development of Actuarial Value of Assets

Valuation Date:	June 30, 2004	June 30, 2005	June 30, 2006	June 30, 2007	June 30, 2008
A. Actuarial Value Beginning of Year	\$ 9,075,340,941	\$ 8,967,399,180			
B. Market Value End of Year	8,565,443,627	9,269,067,708			
C. Market Value Beginning of Year	7,522,414,151	8,565,443,627			
D. Cash Flow					
D1. Contributions	649,553,306	662,748,672			
D2. Other revenues	0	0			
D3. Net transfers	(2,244,495)	(155,635)			
D4. Benefit Payments	(736,499,525)	(806,409,407)			
D5. Administrative Expenses	0	0			
D6. Net	(89,190,714)	(143,816,370)			
E. Investment Income					
E1. Market Total: B - C - D6	1,132,220,190	847,440,451			
E2. Assumed Rate	8.25%	8.25%			
E3. Amount for Immediate Recognition	745,036,511	733,878,007			
E4. Amount for Phased-In Recognition	387,183,679	113,562,444			
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.25 * E4	96,795,920	28,390,611			
F2. First Prior Year	(169,742,962)	96,795,920	28,390,611		
F3. Second Prior Year	(352,857,386)	(169,742,962)	96,795,920	28,390,611	
F4. Third Prior Year	(337,983,130)	(352,857,386)	(169,742,962)	96,795,920	28,390,611
F5. Total Recognized Investment Gain	(763,787,558)	(397,413,817)	(44,556,431)	125,186,531	28,390,611
G. Actuarial Value End of Year: A + D6 + E3 + F5	\$ 8,967,399,180	\$ 9,160,047,000			
H. Difference Between Market & Actuarial Values:	(401,955,553)	109,020,708	153,577,140	28,390,611	0
I. Health Care Valuation Assets	300,860,704	267,482,156			
J. Basic Benefits Valuation Assets	\$ 8,666,538,476	\$ 8,892,564,844			

The actuarial value of assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, the actuarial value of assets will tend to be less than market value. During periods when investment performance is less than assumed, the actuarial value will tend to be greater than market value.

## Asset Summary

June 30, 2005

	<u>Market Value</u>	<u>Actuarial Value</u>
1. Assets at June 30, 2004	\$8,565,443,627	\$ 8,967,399,180
2. Contributions and Misc. Revenue	662,593,037	662,593,037
3. Investment Increment	847,440,451	336,464,190
4. Benefit Payments	(806,409,407)	(806,409,407)
5. Assets at June 30, 2005 (1) + (2) + (3) + (4)	\$ 9,269,067,708	\$ 9,160,047,000
6. Investment Increment/Mean Assets*	10.0%	3.8%

\* Based on the approximation formula:  $I / [.5 \times (A + B - I)]$ , where

I = Investment increment  
A = Beginning of year asset value  
B = End of year asset value

**SCHEDULE B****Statement of Actuarial Assumptions and Methods**

**Interest Rate:** 8.25% per annum, compounded annually (net after all System expenses).

**Salary Increases:** Assumed annual rates of salary increases are as follows:

<b>Service</b>	<b>Base (Economy)</b>	<b>Merit &amp; Seniority</b>	<b>Total Increase</b>
0	4.25%	20.75%	25.00%
1	4.25	13.25	17.50
2	4.25	10.75	15.00
3	4.25	8.75	13.00
4	4.25	7.75	12.00
5	4.25	5.75	10.00
6	4.25	4.75	9.00
7	4.25	3.75	8.00
8	4.25	2.75	7.00
9	4.25	1.75	6.00
10 - 14	4.25	0.75	5.00
15 & Over	4.25	0.50	4.75

Total covered payroll of the entire membership is assumed to increase 4.25% per year in the future.

**Service Retirement:** Representative values of the assumed annual rates of service retirement are as follows:

<b>Age</b>	<b>Male</b>	<b>Female</b>
50	45.0%	36.0%
55	30.0	27.0
60	11.0	23.0
61	11.0	14.0
62	17.0	14.0
63	14.0	14.0
64	17.0	14.0
65	35.0	30.0
70	25.0	38.0
75	100.0	100.0

**Withdrawal Rates:** Representative values of the assumed annual rates of withdrawal are as follows:

<b>Service</b>	<b>Rate</b>
0	50.00%
1	24.00
2	14.00
3	9.00
4	8.00
5	7.50
10	4.25
15	2.50
20	1.75

**Disability Rates:** Representative values of the assumed annual rates of disability are as follows:

Age	Male	Female
30	.150%	.100%
35	.495	.100
40	.540	.210
45	.675	.250
50	1.100	.525
55	1.100	.810

**Mortality Rates:** Mortality Rates for retirees and survivors are based on the 1994 Group Annuity Mortality table with male ages set back three years and female ages set back one year. Mortality for active members is 70% of the retiree table for males and 55% for females. Mortality for disabled members is developed from experience.

Representative values of the assumed annual rates of retiree mortality are as follows:

**Service Retired Members, Beneficiaries and Survivors  
(1994 Group Annuity Mortality Table (-3, -1))**

Age	Male	Female
20	.0430%	.0280%
30	.0727	.0331
40	.0891	.0652
50	.1899	.1310
60	.5581	.3863
70	1.8034	1.2709
80	4.5171	3.5362

**Disability Retired Members**

Age	Male	Female
40	2.2571%	.7450%
50	2.8975	1.1535
60	4.2042	2.1839
70	6.2583	3.7635
80	10.9372	7.2312

**Marriage Assumption:** 80% married with the husband three years older than his wife.

**Valuation Method:** Entry Age Normal cost method. Entry age is established on an individual basis.

**Asset Valuation Method:** Actuarial value, as developed in Schedule A. Actuarial value of assets is based on a four-year average of adjusted market value returns. The difference between the actual returns at market value for the year and expected returns is determined. Twenty-five percent (25%) of that difference is added to the expected value along with corresponding amounts from each of the prior three years.



SCHEDULE C

**SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO**  
**Summary of Benefit and Contribution Provisions**  
**as of June 30, 2005**

<b>Contributions for Basic Benefits</b>	Members contribute 10% of pay and employers contribute 14% of pay. Employer contributions not required to finance basic benefits are allocated to the health care program.
<b>Final Average Salary</b>	Average annual salary over the member's three highest years of service.
<b>Normal Retirement</b>	
Condition for Retirement	Attainment of age 65 with at least five years of creditable service, or completion of 30 years of creditable service, regardless of age.
Amount of Allowance	<p>The annual retirement allowance payable shall not be greater than 100% of final average salary, and is the greater of:</p> <ol style="list-style-type: none"> <li>1. Money Purchase - the greater of : The sum of: <ol style="list-style-type: none"> <li>a. An annuity based on the value of the member's accumulated contributions at retirement</li> <li>b. A pension equal to the annuity</li> <li>c. \$40 multiplied by the member's years of service prior to 9/1/1937.</li> </ol> <p>or:</p> <li>d. For members who have 10 or more years of service credit prior to 10/1/1956, an annual benefit of \$180.</li> </li></ol> <li>2. Defined Benefit - the greater of: The sum of: <ol style="list-style-type: none"> <li>a. 2.2% of final average salary multiplied by the member's years of service up to 30,</li> <li>b. 2.5% of final average salary multiplied by the member's years of service in excess of 30,</li> </ol> <p>or:</p> <li>c. \$86 multiplied by the years of service.</li> </li>

**Early Retirement**

## Condition for Retirement

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

## Amount of Allowance

Normal retirement allowance accrued to the date of early retirement. The Defined Benefit amount determined above is adjusted by the following percentages based on attained age and/or years of service:

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

**Disability Retirement**

## Condition for Retirement

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

## Amount of Allowance

1. For those who were active members prior to July 29, 1992 and did not elect the benefit structure outlined below, an allowance based on service to date of disablement, plus, if the age at disablement is less than 60, continuous service to age 60. The allowance is computed in the same manner as the defined benefit service retirement allowance, subject to a minimum of 30% of FAS and a maximum of 75% of FAS. It is payable for life, unless terminated.
2. For those who became active members after July 28, 1992, and for those who were active members prior to July 29, 1992 who so elected, an allowance equal to the greater of (i) 45% of FAS, or (ii) the lesser of 60% of FAS, or the allowance computed in the same manner as the defined benefit service retirement allowance. The allowance will continue until:
  - a. The date the member is granted a service retirement benefit, or
  - b. The date the allowance is terminated, or
  - c. The later of the date the member attains age 65 or the date the disability allowance has been paid for the minimum duration in accordance with the following schedule:

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

## Death Benefits Prior to Retirement

### Death While Eligible to Retire

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

### Survivor (Death-in-Service) Allowances

#### Condition for Benefit

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

1. **Qualified Spouse:** A monthly allowance commencing at age 62, except that the benefit is payable immediately if: (1) the qualified deceased member had 10 or more years of Ohio service credit; or (2) is caring for a surviving child, or (3) is incompetent.
2. **Qualified Child:** An allowance is payable to the qualified child of a deceased member who is under age 18, under age 22 and in school, or incompetent.
3. **Qualified Parent's Allowance:** A monthly allowance is payable to a dependent parent age 65 or more.

#### Amount of Allowances

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

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

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

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

### Termination Benefits

#### Refund of Members' Accumulated Contributions

In the event a member leaves service before any monthly benefits are payable on his behalf, his accumulated contributions, without interest, may be refunded.

#### Deferred Benefits

If a member with at least 5 years of contributing service credit leaves service before being eligible for an immediate monthly allowance and does not withdraw any part of his accumulated contributions, he will be entitled to a deferred allowance at age 60. The amount of the allowance is based on his credited service and final average salary at termination of employment.

### Normal Form of Benefit

Single Life Annuity

### Optional Forms of Benefit

A member upon retirement may elect to receive his allowance in one of the following forms that are computed to be actuarially equivalent to the applicable retirement allowance:

Upon the death of a retiree, 50%, 100%, or some other percentage of his reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further

guarantee of payment to the pensioner, his beneficiary or his estate for a specified number of years certain.

A member can select a partial lump-sum option at retirement. Under this option, the partial lump-sum shall not be less than 6 times and not more than 36 times the unreduced monthly benefit, and the monthly benefit will be actuarially reduced. In addition, the monthly benefit payable cannot be less than 50% of the unreduced amount.

#### **Post-Retirement Death Benefit**

Regardless of the form of benefit selected, a lump sum benefit of \$1,000 is paid at the death of the retiree.

#### **Post-Retirement Increases**

On each anniversary of the initial date of retirement, the allowances of all retirees and survivors are increased by 3% of the base benefit.

#### **Medicare Part B**

Each recipient of a service retirement benefit, a disability benefit or a survivor benefit who was credited with at least 10 years of service and is covered under Medicare Part-B is reimbursed \$45.50 per month for premiums for that coverage.

#### **Re-Employed Retirants**

##### **Eligibility**

Effective July 1, 1991, service retirees of SERS, or service or disability retirees of one of the other four Ohio retirement systems who are employed in a SERS covered position are required to contribute to a money purchase annuity, a type of defined contribution plan.

##### **Amount of Allowance**

Upon termination of employment, a re-employed retirant who has attained age 65 is eligible to receive an annuity based on the amount of his/her accumulated contributions, and an equal amount of employer contributions, plus interest to the effective date of retirement. Interest is granted on the re-employed retirant's prior fiscal year account balance, calculated using a rate determined by the SERS Board, compounded annually. The benefit is payable as a lump sum or as an annuity if the amount of such annuity is at least \$25. Upon termination of employment, a re-employed retirant who has not attained age 65 may request a lump sum refund of his/her own contributions; there is no payment of employer contributions or interest.

##### **Benefits Payable Upon Death**

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

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

payments received by the re-employed retirant to the date of death.

Member Contributions

Each re-employed retirant is required to contribute 10% of his pay by payroll deductions.

Employer Contributions

Employer contributions are expressed as percents of member covered payroll. Employers are required to contribute 14% of payroll.

Other Benefits

Re-employed retirant members of SERS are not eligible to receive any of the other benefits provided to regular SERS members.

**SCHEDULE D****DETAILED TABULATIONS OF THE DATA****Annuity and Pension Reserve Fund****Retirants and Beneficiaries****June 30, 2005****Type of Benefit, Annual Amount, and Basic Benefit Actuarial Liabilities**

Group	Number	% of Current Total Benefit			Current Total Benefit	Actuarial Liabilities
		Base Allowances	H.B. 204 and 284	Retirement Increases		
<b>Superannuation Retirement</b>						
<b>Straight Life Allowance - Benefit Terminating at Death</b>						
Males	3,972	76.9%	0.0%	23.1%	\$44,410,613	\$ 399,003,681
Females	<u>25,167</u>	77.9%	0.0%	22.1%	<u>184,208,576</u>	<u>1,729,702,987</u>
Total	29,139				\$228,619,189	\$2,128,706,668
<b>Option II Allowance - Joint and Survivor Benefits</b>						
Males	6,783	81.2%	0.0%	18.8%	\$88,866,983	\$ 1,063,700,178
Females	<u>10,073</u>	85.5%	0.0%	14.5%	<u>91,878,222</u>	<u>1,084,442,320</u>
Total	16,856				\$180,745,205	\$2,148,142,498
<b>Option III Allowance - Life Benefits With Guaranteed Benefits</b>						
Males	379	75.1%	0.1%	24.8%	\$3,207,183	\$28,750,599
Females	<u>906</u>	76.6%	0.0%	23.4%	<u>5,621,160</u>	<u>54,509,622</u>
Total	1,285				\$8,828,344	\$83,260,221
<b>Allowance to Survivor Beneficiary of Deceased Superannuation Retirant</b>						
<b>Who Elected Option II - Life Benefit</b>						
Males	977	70.9%	0.1%	29.0%	\$3,344,990	\$ 26,658,586
Females	<u>3,771</u>	64.2%	0.1%	35.7%	<u>23,320,516</u>	<u>187,430,497</u>
Total	4,748				\$26,665,506	\$214,089,083

Note that the actuarial liabilities include annual pension allowances and lump sum death benefits, but exclude Medicare Part-B supplement.

**Annuity and Pension Reserve Fund**  
**Retirants and Beneficiaries**  
**June 30, 2005**  
**Type of Benefit, Annual Amount, and Basic Benefit Actuarial Liabilities**  
**(continued)**

Group	Number	% of Current Total Benefit			Current Total Benefit	Actuarial Liabilities
		Base Allowances	H.B. 204 and 284	Post Retirement Increases		
<b>Allowance to Survivor Beneficiary of Deceased Superannuation Retirant</b>						
<b>Who Elected Option III - Guaranteed Period Only</b>						
Males	22	84.0%	0.0%	16.0%	\$181,556	\$671,348
Females	<u>40</u>	80.8%	0.0%	19.2%	<u>208,081</u>	<u>796,278</u>
Total	62				\$389,638	\$1,467,626
<b>Total for Superannuation Allowances Being Paid</b>						
Males	12,133	79.4%	0.0%	20.5%	\$140,011,325	\$1,518,784,392
Females	<u>39,957</u>	79.1%	0.0%	20.9%	<u>305,236,555</u>	<u>3,056,881,704</u>
Total	52,090				\$445,247,880	\$4,575,666,096
<b>Disability Retirement</b>						
<b>Straight Life Allowance - Benefit Terminating at Death</b>						
Males	1,643	80.3%	0.0%	19.6%	\$26,725,576	\$224,667,765
Females	<u>3,549</u>	80.2%	0.0%	19.8%	<u>32,473,808</u>	<u>318,600,274</u>
Total	5,192				\$59,199,384	\$543,268,039
<b>Total Benefits Being Paid From Annuity and Pension Reserve Fund</b>						
Males	13,776	79.6%	0.0%	20.4%	\$166,736,901	\$1,743,452,157
Females	<u>43,506</u>	79.2%	0.0%	20.8%	<u>337,710,363</u>	<u>3,375,481,978</u>
Total	57,282				\$504,447,264	\$5,118,934,135



**Annuity and Pension Reserve Fund**  
**Retirants as of June 30, 2005**  
**Current Annual Total Benefits by Attained Age**

Attained Age	Superannuation		Disability		Totals	
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits
Under 20						
20-24						
25-29						
30-34			3	\$ 36,895	3	\$ 36,895
35-39			18	265,456	18	265,456
40-44	1	\$ 16,849	133	2,251,211	134	2,268,060
45-49	44	1,475,297	336	5,576,184	380	7,051,481
50-54	392	10,944,125	623	10,072,432	1,015	21,016,557
55-59	1,245	26,948,029	908	12,280,229	2,153	39,228,258
60-64	5,141	58,919,658	1,036	12,140,901	6,177	71,060,559
65-69	9,016	92,695,384	773	7,709,208	9,789	100,404,592
70-74	9,236	83,959,961	563	4,337,045	9,799	88,297,006
75-79	8,864	67,853,436	403	2,614,461	9,267	70,467,897
80-84	7,417	47,364,604	269	1,438,933	7,686	48,803,537
85-89	4,072	20,662,665	109	424,882	4,181	21,087,547
90-94	1,540	6,129,997	15	43,070	1,555	6,173,067
95-99	286	1,149,379	3	8,477	289	1,157,856
100	7	20,623			7	20,623
101	8	20,473			8	20,473
102	5	11,049			5	11,049
103	3	11,350			3	11,350
104	1	5,560			1	5,560
105 & Over	2	4,298			2	4,298
<b>Total</b>	<b>47,280</b>	<b>\$ 418,192,737</b>	<b>5,192</b>	<b>\$ 59,199,384</b>	<b>52,472</b>	<b>\$ 477,392,121</b>

**Annuity and Pension Reserve Fund  
Survivors of Retirants as of June 30, 2005  
Current Annual Total Benefits by Attained Age**

Attained Age	Life Annuities		Periods Certain		Totals	
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits
Under 20	2	\$ 4,445			2	\$ 4,445
20-24	6	17,772			6	17,772
25-29	3	26,525			3	26,525
30-34	4	22,740			4	22,740
35-39	6	42,043			6	42,043
40-44	13	49,427	2	\$ 8,300	15	57,727
45-49	27	140,372	5	34,303	32	174,675
50-54	55	283,010	3	6,858	58	289,868
55-59	89	651,395	4	13,926	93	665,321
60-64	163	1,266,450	6	58,936	169	1,325,386
65-69	331	2,188,436	13	110,955	344	2,299,391
70-74	643	4,641,049	13	64,863	656	4,705,912
75-79	992	6,369,233	11	78,655	1,003	6,447,888
80-84	1,181	5,886,019	4	9,947	1,185	5,895,966
85-89	814	3,476,769	1	2,894	815	3,479,663
90-94	328	1,314,174			328	1,314,174
95-99	87	276,613			87	276,613
100	2	6,014			2	6,014
101	1	937			1	937
102	1	2,083			1	2,083
103						
104						
105 & Over						
<b>Total</b>	<b>4,748</b>	<b>\$ 26,665,506</b>	<b>62</b>	<b>\$ 389,637</b>	<b>4,810</b>	<b>\$ 27,055,143</b>

**Survivor Benefit Fund**  
**Beneficiaries as of June 30, 2005**  
**Annual Amount, and Basic Benefit Actuarial Liabilities**

Group	Number	% of Current Annual Benefit			Current Annual Benefits	Actuarial Liabilities
		Base Allowances	HB 204 and 284	Post - Retirement Increases		
<b>Benefits Being Paid From Survivor Benefit Fund</b>						
Males	1,687	84.1%	0.0%	15.9%	\$7,705,771	\$99,166,984
Females	<u>2,464</u>	76.1%	0.0%	23.9%	<u>15,778,877</u>	<u>135,971,257</u>
Total	4,151	78.7%	0.0%	21.3%	\$23,484,648	\$235,138,241

Note that actuarial liabilities are calculated for pension allowances for all survivors, including contingent (multiple) beneficiaries and beneficiaries in blackout; excluded are liabilities for the Medicare Part-B supplement. The total benefit amounts include those amounts for all contingent (multiple) beneficiaries although they are excluded from the total number of survivors reported.

**Survivor Benefit Fund**  
**Survivors of Deceased Active Members as of June 30, 2005**  
**Current Annual Total Benefits by Attained Age**

Attained Age	Totals	
	Number	Annual Benefits
Under 20	54	\$ 319,778
20-24	13	105,161
25-29	2	6,918
30-34	8	71,334
35-39	26	318,775
40-44	56	515,128
45-49	125	1,125,471
50-54	167	1,569,440
55-59	264	2,199,287
60-64	436	2,447,709
65-69	684	4,232,588
70-74	717	3,823,891
75-79	677	3,186,231
80-84	513	2,038,555
85-89	277	1,077,887
90-94	108	368,492
95-99	22	70,928
100	2	7,075
101		
102		
103		
104		
105 & Over		
<b>Total</b>	<b>4,151</b>	<b>\$23,484,648</b>

**SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO**  
**Total Active Member Data as of June 30, 2005**  
**Tabulated by Attained Age and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals	
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 plus	No.	Valuation Payroll
Under 20	724							724	\$ 4,044,624
20 - 24	4,814	157						4,971	43,201,107
25 - 29	4,665	1,076	45					5,786	83,991,420
30 - 34	5,051	2,066	410	55				7,582	129,180,944
35 - 39	6,852	3,743	1,025	445	77			12,142	215,907,970
40 - 44	8,291	6,652	2,479	1,275	764	196		19,657	373,239,014
45 - 49	7,051	7,266	4,320	2,504	1,302	1,018	112	23,573	500,865,106
50 - 54	4,461	4,689	3,655	3,520	1,947	1,144	348	19,764	457,202,396
55 - 59	3,076	2,573	2,237	2,965	2,519	1,541	421	15,332	365,001,448
60	419	292	246	321	331	295	69	1,973	46,317,499
61	370	328	232	257	284	270	100	1,841	42,213,226
62	332	323	205	260	288	271	114	1,793	40,980,138
63	255	195	162	210	199	214	122	1,357	30,016,002
64	236	176	137	160	176	178	101	1,164	25,267,842
65	194	157	88	110	147	134	100	930	19,533,230
66	160	116	75	107	104	124	101	787	16,343,171
67	192	90	76	79	93	115	84	729	13,720,376
68	157	80	57	50	44	82	84	554	9,721,046
69	110	86	45	53	42	41	72	449	8,022,869
70 & Over	392	342	194	189	162	178	290	1,747	27,765,105
<b>Totals</b>	<b>47,802</b>	<b>30,407</b>	<b>15,688</b>	<b>12,560</b>	<b>8,479</b>	<b>5,801</b>	<b>2,118</b>	<b>122,855</b>	<b>\$ 2,452,534,533</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 46.7 years  
Service: 9.0 years  
Annual Pay: \$19,963

**SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO**  
**Male Active Member Data as of June 30, 2005**  
**Tabulated by Attained Age and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals	
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 plus	No.	Valuation Payroll
Under 20	391							391	\$ 2,323,805
20 - 24	2,254	74						2,328	20,973,261
25 - 29	1,933	424	22					2,379	36,883,717
30 - 34	1,680	639	174	27				2,520	49,790,543
35 - 39	1,751	816	364	216	33			3,180	77,028,194
40 - 44	2,002	1,044	508	469	427	115		4,565	121,506,512
45 - 49	2,010	1,123	607	565	590	555	65	5,515	160,555,498
50 - 54	1,678	1,023	644	547	538	440	183	5,053	149,405,407
55 - 59	1,344	799	495	458	438	267	147	3,948	113,653,469
60	214	125	82	74	58	35	17	605	16,480,553
61	200	138	69	64	58	30	20	579	15,229,941
62	171	137	78	70	68	29	12	565	14,853,433
63	151	93	71	57	42	25	20	459	11,364,258
64	137	100	52	40	40	19	14	402	9,766,466
65	104	84	38	35	33	11	9	314	7,253,138
66	87	66	36	35	27	12	8	271	6,023,393
67	104	40	29	30	20	13	3	239	4,729,448
68	83	46	21	13	13	9	7	192	3,560,059
69	55	45	23	15	10	3	9	160	3,118,838
70 & Over	186	156	112	78	49	24	22	627	11,045,979
<b>Totals</b>	<b>16,535</b>	<b>6,972</b>	<b>3,425</b>	<b>2,793</b>	<b>2,444</b>	<b>1,587</b>	<b>536</b>	<b>34,292</b>	<b>\$ 835,545,912</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.6 years  
Service: 8.1 years  
Annual Pay: \$24,366

**SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO**  
**Female Active Member Data as of June 30, 2005**  
**Tabulated by Attained Age and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals	
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 plus	No.	Valuation Payroll
Under 20	333							333	\$ 1,720,819
20 - 24	2,560	83						2,643	22,227,846
25 - 29	2,732	652	23					3,407	47,107,703
30 - 34	3,371	1,427	236	28				5,062	79,390,401
35 - 39	5,101	2,927	661	229	44			8,962	138,879,776
40 - 44	6,289	5,608	1,971	806	337	81		15,092	251,732,502
45 - 49	5,041	6,143	3,713	1,939	712	463	47	18,058	340,309,608
50 - 54	2,783	3,666	3,011	2,973	1,409	704	165	14,711	307,796,989
55 - 59	1,732	1,774	1,742	2,507	2,081	1,274	274	11,384	251,347,979
60	205	167	164	247	273	260	52	1,368	29,836,946
61	170	190	163	193	226	240	80	1,262	26,983,285
62	161	186	127	190	220	242	102	1,228	26,126,705
63	104	102	91	153	157	189	102	898	18,651,744
64	99	76	85	120	136	159	87	762	15,501,376
65	90	73	50	75	114	123	91	616	12,280,092
66	73	50	39	72	77	112	93	516	10,319,778
67	88	50	47	49	73	102	81	490	8,990,928
68	74	34	36	37	31	73	77	362	6,160,987
69	55	41	22	38	32	38	63	289	4,904,031
70 & Over	206	186	82	111	113	154	268	1,120	16,719,126
<b>Totals</b>	<b>31,267</b>	<b>23,435</b>	<b>12,263</b>	<b>9,767</b>	<b>6,035</b>	<b>4,214</b>	<b>1,582</b>	<b>88,563</b>	<b>\$ 1,616,988,621</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 47.1 years  
Service: 9.3 years  
Annual Pay: \$18,258

## SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

Active Member as of June 30, 2005

### By Annual Pay

Annual Pay	Number of Active Members			Portion of Total Number	
	Men	Women	Totals	Group	Cumulative
Less than \$1,000	230	378	608	0.5%	0.5%
\$1,000 - 1,999	1,176	1,530	2,706	2.2%	2.7%
2,000 - 2,999	2,041	2,274	4,315	3.5%	6.2%
3,000 - 3,999	1,810	2,734	4,544	3.7%	9.9%
4,000 - 4,999	1,370	2,755	4,125	3.4%	13.3%
5,000 - 5,999	992	2,744	3,736	3.0%	16.3%
6,000 - 6,999	809	2,805	3,614	2.9%	19.2%
7,000 - 7,999	736	2,786	3,522	2.9%	22.1%
8,000 - 8,999	657	2,638	3,295	2.7%	24.8%
9,000 - 9,999	660	2,779	3,439	2.8%	27.6%
10,000 - 11,999	1,329	5,576	6,905	5.6%	33.2%
12,000 - 13,999	1,203	7,014	8,217	6.7%	39.9%
14,000 - 15,999	1,173	7,961	9,134	7.4%	47.3%
16,000 - 17,999	1,131	6,868	7,999	6.5%	53.8%
18,000 - 19,999	1,020	6,304	7,324	6.0%	59.8%
20,000 - 24,999	2,171	10,611	12,782	10.4%	70.2%
25,000 - 27,399	1,255	3,890	5,145	4.2%	74.4%
27,400 - 29,999	1,667	3,648	5,315	4.3%	78.7%
30,000 and over	12,862	13,268	26,130	21.3%	100.0%
<b>Totals</b>	<b>34,292</b>	<b>88,563</b>	<b>122,855</b>		



## **SCHEDULE E**

### **GAIN/LOSS ANALYSIS COMMENTS AND DETAILED TABULATIONS OF THE DATA**

#### **COMMENTS**

1. Regular actuarial valuations measure the Retirement System's present financial position and contributions adequacy by calculating and financing the liabilities created by the present benefit program. This process involves discounting to present values the future benefit payments on behalf of present active and retired members and their survivors. However, valuations do not produce information regarding the amount of increases or decreases in unfunded actuarial accrued liabilities (UAAL) -- gain/loss analyses do.
2. The overall gain/loss to the Retirement System is the difference between the actual UAAL and the expected UAAL. A gain/loss analysis shows the breakdown of the overall system gain/loss by economic and non-economic risk areas. The economic risk areas are investment return and pay increases. The non-economic risk areas are service retirement, disability retirement, death in active service, termination (vested and non-vested), retiree mortality, and new members. Gains and losses resulting from data adjustments, timing of financial transactions, etc. are included separately as a miscellaneous item.
3. It is expected that actual experience will not coincide with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Changes in actuarial assumptions should be made for risk areas when the differences between actual and expected experience are consistently sizable over a period of years. Differences over a relatively short period of time may or may not be indicative of long-term trends, which are the basis of actuarial assumptions.

4. The actuarial assumptions used in this analysis are the same as those used in the June 30, 2004 actuarial valuation of the Retirement System. These assumptions were adopted by the Board in June 2001.
  
5. Beginning with the June 30, 1995 valuation, the funding of retiree health care benefits has been changed from the Entry Age Normal funding method to an asset target method. Accrued liabilities for such benefits have not been calculated since then. The analysis in this report shows gains and losses to the System due to basic benefits only.
  
6. Any historical information and data shown in the report with a valuation date prior to June 30, 2002 were obtained from the previous actuary's report.
  
7. Results as of June 30, 2001 were restated by the previous actuary after issuance of their report. This report reflects those restatements.

**School Employees Retirement System of Ohio**

**Experience Gains & Losses By Risk Area**

**Comparative Schedule**

(\$ Millions)

Year Ending June 30	Gain (Loss) by Risk Area									\$	% of AAL
	Economic		Non-Economic								
	Pay Increases	Investments	Age & Service Retirement	Disability	Death In Service	Withdrawal	New Members	Retired Lives	Other *		
1996	\$76.6	\$126.4	\$(9.7)	\$(8.9)	\$0.2	\$4.3	^	\$4.2	\$(33.5)	\$159.6	2.7%
1997	76.1	256.1	(8.1)	(2.4)	0.6	3.1	^	(1.4)	(34.2)	289.8	4.7
1998	50.5	486.6	20.1	(0.2)	(0.0)	(20.0)	^	(1.3)	(75.9)	459.8	7.1
1999	47.3	487.7	24.4	2.7	(0.7)	(18.0)	^	1.0	(84.6)	459.8	6.5
2000	(22.8)	465.6	27.4	0.5	(0.4)	(5.7)	^	14.4	(136.2)	342.8	4.6
2001	51.3	(13.0)	32.4	7.3	(0.9)	68.0	^	(3.3)	(76.6)	57.8	0.7
2002	(151.3)	(533.6)	41.5	0.2	1.6	(9.8)	(38.6)	44.1	35.5	(610.4)	(6.6)
2003	28.0	(781.4)	(29.7)	(0.3)	(0.3)	38.8	(37.1)	30.0	(24.7)	(776.7)	(7.8)
2004	83.6	(763.8)	(45.2)	0.0	0.5	56.6	(48.6)	23.3	(0.4)	(694.0)	(6.5)
2005	101.6	(397.4)	(82.6)	2.1	(0.7)	52.7	(42.7)	12.4	(81.7)	(436.3)	(3.9)

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

^ Included in "Other" risk area.

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

The actuarial value of assets for the basic benefits as of June 30, 2005 was \$8,892,564,844. The value for the previous year was \$8,666,538,476.

**School Employees Retirement System of Ohio**  
**Development of Gain (Loss) for Basic Benefits**  
**From Investment Return**  
**For the Year Ended June 30, 2005**

		<u>\$ Millions</u>
1.	Actuarial value of assets as of June 30, 2004	\$8,666.5
2.	Actuarial value of assets as of June 30, 2005	
	a. Actual	8,892.6
	b. If 8.25% assumed investment return was achieved for all phased-in years recognized in the asset method	9,290.0
3.	Gain (Loss): 2a minus 2b	<u>\$(397.4)</u>

**Pay Increases During the 2004-2005 Valuation Year  
To Members Active at Beginning and End of Year**

Central Age Group Beginning of Year	Number	Pay Increases	
		Actual	Expected
Under 25	1,503	-1.08%	18.73%
25	3,560	5.36	14.50
30	4,663	6.35	12.18
35	8,537	6.39	10.75
40	14,807	6.04	9.32
45	20,829	5.57	8.02
50	19,726	4.64	7.14
55	15,929	4.22	6.60
60	9,580	3.88	6.43
65 & Over	6,553	3.16	6.32
Total	105,687	4.94%	8.06%

**Members Who Became Age & Service Retirees During Valuation Year 2004-2005  
(Retirement With Allowance Beginning Immediately)**

Attained Age	Years of Service to Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	
Under 50	0	0	0	0	0	0	1	0
50	0	0	0	1	0	0	14	15
51	0	0	0	0	0	0	15	15
52	0	0	0	0	0	1	10	11
53	0	0	0	0	1	0	21	22
54	0	0	0	0	0	0	17	17
55	0	0	0	0	0	20	19	39
56	0	0	0	0	0	24	12	36
57	0	0	0	0	0	18	14	32
58	0	0	0	0	0	24	27	51
59	0	0	0	0	0	17	24	41
60	0	10	10	13	29	31	18	111
61	0	8	2	14	15	36	18	93
62	0	11	15	23	22	34	16	121
63	0	10	10	17	22	32	21	112
64	0	4	8	8	16	26	16	78
65	0	15	12	21	25	25	11	109
66	0	4	13	10	10	16	16	69
67	0	2	10	12	10	10	12	56
68	0	4	6	10	12	12	13	57
69	0	6	4	5	4	9	18	46
70 & over	0	14	20	16	21	27	50	148
<b>Totals</b>	<b>0</b>	<b>88</b>	<b>110</b>	<b>151</b>	<b>187</b>	<b>362</b>	<b>406</b>	<b>1,304</b>

Average Age: 63.3

Average Service: 23.8

Note that this table excludes active members who worked less than one-quarter of the fiscal year for the last two years. These members are deemed inactive members by the System.

**Members Who Died in 2004-2005 Valuation Year  
With a Death-in-Service Allowance Payable**

Central Age Group	Number
Under 25	0
25	0
30	2
35	3
40	8
45	12
50	19
55	14
60	16
65	7
70 & over	5
Total	86

Average Age: 54.9  
Average Service: 13.6

**Members Who Died in 2004-2005 Valuation Year  
and Received a Refund of Contributions**

Central Age Group	Number
Under 25	1
25	0
30	0
35	1
40	1
45	7
50	3
55	9
60	13
65	6
70 & over	5
Total	46

Average Age: 59.5  
Average Service: 12.9



**Members Who Became Disability Retirees  
During the 2004-2005 Valuation Year**

Central Age Group	Number
Under 25	0
25	0
30	1
35	3
40	14
45	39
50	67
55	66
60	39
65	8
70 & over	4
Total	241

Average Age: 54.8

Average Service: 16.1

**Members Receiving a Refund of Contributions  
or Becoming Inactive Without a Refund in  
the 2004-2005 Valuation Year  
(Non-vested Terminations)**

Central Age Group	Number
Under 25	2,171
25	1,868
30	1,585
35	1,702
40	2,012
45	1,871
50	1,237
55	975
60	883
65	444
70 & over	265
Total	15,013

Average Age: 41.0  
Average Service: 4.1

**Members Who Became Inactive  
in the 2004-2005 Valuation Year  
with a Deferred Allowance  
(Vested Terminations)**

Central Age Group	Number
Under 25	1
25	12
30	46
35	68
40	121
45	159
50	174
55	130
60	21
65	13
70 & over	7
Total	752

Average Age: 48.4  
Average Service: 10.3

## **SCHEDULE F**

### **GLOSSARY**

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

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

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

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

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

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

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

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

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

(concluded on next page)

**GLOSSARY  
(concluded)**

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

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

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

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