

Ross

REPORT ON THE ANNUAL VALUATION OF THE
SCHOOL EMPLOYEES RETIREMENT SYSTEM

OF OHIO

PREPARED AS OF JUNE 30, 2003



November 12, 2003

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 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, 2003.

The date of the valuation was June 30, 2003.

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.


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,



Thomas J. Cavanaugh, F.S.A.
Principal & Consulting Actuary



Philip Bonanno, E.A.
Senior Consultant & Actuary

TJC-PB/cj
V00418TCa-OH.doc

TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Summary of Principal Results	1
II	Membership Data	4
III	Valuation Balance Sheet	5
IV	Comments on Valuation	7
V	Derivation of Experience Gains and Losses	9
VI	Required Contribution Rates	10
VII	Supplemental Disclosure Information	11
 <u>Schedule</u>		
A	Development of Actuarial Value of Assets	16
B	Statement of Actuarial Assumptions and Methods	18
C	Summary of Main Benefit and Contribution Provisions	20
D	Detailed Tabulations of the Data	26
E	Glossary	36

**REPORT ON THE ANNUAL VALUATION OF THE
SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
PREPARED AS OF JUNE 30, 2003**

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2003, 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

VALUATION DATE	6/30/03	6/30/02
Active members included in valuation		
Number	122,315	120,254
Annual compensation	\$ 2,302,288,847	\$ 2,175,734,902
Retirees		
Number	22 59,999	59,349
Annual allowances	\$ 461,212,013	\$ 432,217,056
Deferred Vesteds		
Number	22 8,796	8,423
Annual deferred allowances	\$ 26,153,534	\$ 22,400,005
Assets (net of Health Care Assets)		
Market related actuarial value	\$ 8,771,784,331	\$ 8,878,759,793
Market value	\$ 7,218,857,541	\$ 7,223,433,668
Unfunded accrued liability	\$ 1,862,689,769	\$ 1,107,546,362
Employer contribution rate		
Normal	4.68%	5.40%
Accrued liability	4.41	2.77
Total	9.09%	8.17%
Accrued liability payment period	30 years	30 years

2. The Board has set a total contribution rate of 23% of payroll, 14% from employers and 9% from employees. Effective July 1, 2003, the employee rate was increased to 10% of payroll, resulting in an overall contribution rate of 24%. 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 actuarial assumptions or methods since the last valuation. There were, however, changes in benefit provisions, as follows:
 - Effective July 1, 2003, the member contribution rate was increased from 9% of payroll to 10%.
 - Effective October 1, 2002, a member may elect to receive a partial lump sum payment upon retirement. The monthly benefit payable will be actuarially reduced accordingly.
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.

School Employees Retirement System of Ohio

Comparative Schedule

Valuation Date	Active Members			Retired Lives				Accrued Liability	Valuation Assets	UAAAL	
	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	\$203	
2000	113,811	1,866	16,398	2.2	57,824	2.0	376.7	20.2	7,919	(181)	
2001	115,684	1,974	17,065	4.1	58,795	2.0	404.5	20.5	9,257	466	
2002	120,254	2,176	18,093	6.0	59,349	2.0	432.2	19.9	9,986	1,107	
2003	122,315	2,302	18,823	4.0	59,999	2.0	461.2	20.0	10,635	1,863	

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, 2003 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
122,315	\$2,302,288,847	\$18,823	46.0	8.6

The total number of active members includes ⁽²²⁾67,440 vested members and ⁽²⁷⁾54,875 non-vested members.

Retired Lives

Type of Benefit Payment	No.	Annual Benefits	Group Averages	
			Benefit	Age
Retirement	50,840	\$386,604,962	\$7,604	74.7
Disability	5,126	53,886,627	10,512	62.3
Survivor	4,033	20,720,424	5,138	70.2
Total in SERS	59,999	\$461,212,013	\$7,687	73.3

This valuation also includes 77,209 inactive members eligible for a contribution refund only (including 30,298 members not reported in the data files who had completed 1 or more years of service before terminating). Their contributions totaled \$90,082,304 as of June 30, 2003. In addition, there are 7,165 re-employed retirants with contributions of \$16,001,121, and 8,796 terminated vested members with annual deferred benefits of \$26,153,534.

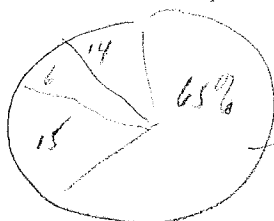
SECTION III - VALUATION BALANCE SHEET

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of June 30, 2003 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2002. 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**

	JUNE 30, 2003	JUNE 30, 2002
ASSETS		
Current actuarial value of assets	\$ 8,771,784,331	\$ 8,878,759,793
Future member contributions	\$ 1,999,468,748	\$ 1,713,878,512
Prospective employers' contributions		
Normal contributions	\$ 872,373,699	\$ 970,284,800
Unfunded accrued liability contributions	\$ <u>1,862,689,769</u>	\$ <u>1,107,546,362</u>
Total prospective contributions	\$ 2,735,063,468	\$ 2,077,831,162
Total assets	\$ <u>13,506,316,547</u>	\$ <u>12,670,469,467</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 4,880,716,092	\$ 4,599,341,845
Present value of benefits payable on account of active members	8,297,816,978	7,778,340,658
Present value of benefits payable on account of inactive and deferred vested members for service rendered before the valuation date	327,783,477	292,786,964
Total liabilities	\$ <u>13,506,316,547</u>	\$ <u>12,670,469,467</u>

SERS Basic Benefits Financing



8,771,784,331

*65% Assets
6% Fr Normal Cont
15% Member Cont
14% OAL Cont*

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, 2003.

Total Assets

Current actuarial assets as of the valuation date equaled \$8,771,784,331. Future member contributions were valued to be \$1,999,468,748. Prospective employers' contributions were calculated to be \$2,735,063,468, of which \$872,373,699 is attributable to service rendered after the valuation date (normal contributions) and \$1,862,689,769 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 \$13,506,316,547 as of June 30, 2003.

Total Liabilities

The present value of ⁽⁵⁴⁾benefits payable on account of presently retired members and beneficiaries totaled \$4,880,716,092 as of the valuation date. The present value of future benefit payments on behalf of active members amounted to \$8,297,816,978. In addition, the present value of benefits for inactive members, due to service rendered before the valuation date, was calculated to be \$327,783,477⁽⁵⁴⁾.

Therefore, the balance sheet shows the present value for all prospective benefit payments under the System to be \$13,506,316,547 as of June 30, 2003.

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.

	Total Liability	Accrued Liability
Active Members		
Retirement	\$6,851,570,861	\$5,038,977,332 (54)
Death	115,698,092	73,280,703
Disability	707,637,090	341,020,165
Termination	478,919,173	(122,557,634)
Medicare Part-B	135,292,107	90,305,678
Death After Retirement	<u>8,699,655</u>	<u>4,948,287</u>
Total	\$8,297,816,978	\$5,425,974,531
Benefit Recipients		
Retirement/Survivor/Disability	\$4,660,372,594	\$4,660,372,594 (54)
Medicare Part-B	200,245,570	200,245,570
Death After Retirement	<u>20,097,928</u>	<u>20,097,928</u>
Total	\$4,880,716,092	\$4,880,716,092
Deferred Vested Members	179,009,631	179,009,631
Inactive Members	<u>148,773,846</u>	<u>148,773,846</u>
Total Actuarial Values	\$ 13,506,316,547	\$ 10,634,474,100
Actuarial Value of Assets		<u>8,771,784,331</u>
Unfunded Actuarial Accrued Liability		\$1,862,689,769

need
breakdown
for 54

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 will be detailed in a separate report. This section shows the overall net actuarial gain or loss for the year ended June 30, 2003. Detail on the derivation of the experience gain (loss) for the year ended June 30, 2003 is shown below.

	<u>\$ millions</u>
(1) UAAL* as of 06/30/02	\$1,107.5
(2) Normal cost from last valuation	121.0
(3) Actual employer contributions	199.0
(4) Interest accrual: $(1) \times .0825 + [(2) - (3)] \times .0404$	88.2
(5) Expected UAAL before changes: $(1) + (2) - (3) + (4)$	1,117.7
(6) Change due to plan amendments	(31.7)
(7) Change due to new actuarial assumptions or methods	0.0
(8) Expected UAAL after changes: $(5) + (6) + (7)$	1,086.0
(9) Actual UAAL as of 6/30/03	1,862.7
(10) Gain (loss) $(8) - (9)$ <i>(781) due to "recognized" losses (pg 16)</i>	\$(776.7)
(11) Gain (loss) as percent of actuarial accrued liabilities at start of year (\$9,986.3)	-7.8%

* Unfunded actuarial accrued liability.

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 2003/2004 fiscal year.

BREAKDOWN OF REQUIRED CONTRIBUTIONS

(expressed as percents of payroll)

	Basic Benefits	Post Retirement Death Benefit	Medicare Part-B	Total
Normal Cost				
Service Retirement Benefits	9.32%			
Disability Benefits	1.82			
Survivor Benefits	0.22			
Refunds	<u>3.01</u>			
Total	14.37%	0.02%	0.29%	14.68%
UAAL Payment	3.99	0.01	0.41	4.41
Total Contribution	18.36%	0.03%	0.70%	19.09%
Member Contribution	10.00	0.00	0.00	10.00
Employer Contribution	8.36%	0.03%	0.70%	9.09%

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, 2003**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	59,999
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	86,005
Active Participants	<u>122,315</u>
Total	268,319

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)
06/30/94	\$3,951,856	\$5,381,465	73.4%	\$1,429,609	\$1,360,887	105.0%
06/30/95@	4,310,487	5,839,027	73.8	1,528,540	1,429,559	106.9
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^ (30)	8,771,784	10,634,474	82.5	1,862,690	2,302,289	80.9

^ After change in benefit provisions.
After change in actuarial assumptions.
* After change in asset method.

@ Includes Medicare Part-B Supplement for this year and future years.
+ 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 \$1,862,689,769 over a 30-year period from the valuation date.

**2003/2004 FISCAL YEAR
ANNUAL REQUIRED CONTRIBUTION (ARC)
BASED ON THE VALUATION AS OF JUNE 30, 2003**

ANNUAL REQUIRED CONTRIBUTION (ARC)	RATE
Normal	4.68%
Accrued liability	<u>4.41</u>
Total	9.09%

4. Additional information as of June 30, 2003 follows.

(52)

Valuation date	6/30/03
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

Fiscal Year 7-1/6-30	Valuation Date 6-30	Annual Required Contribution	Percentage Contributed
1994-95	1994	\$128,603,843	100%
1995-96	1995	150,103,657	100
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

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)
1994	\$961	\$2,426	\$1,994	\$3,952	100%	100%	28.3%
1995	1,034	2,700	2,105	4,310	100	100	27.4
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

56

Schedule of Active Member Valuation Data

Valuation Date	Active members			
	Number	Annual Payroll (in millions)	Annual Average Pay	% Increase in Average Pay
1994	99,918	\$1,360.9	\$13,620	-
1995	100,784	1,429.6	14,184	4.1%
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	120,294	2,175.7	18,063	6.0
2003	122,315	2,302.3	18,823	4.2
	(54)	(54)	(54)	(54)

Schedule of Retirants Added to And Removed From Rolls

Item	Fiscal year ended June 30								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beginning of Year	51,479	52,413	53,478	54,554	55,563	56,632	57,824	58,795	59,349
Added	3,532	4,032	3,993	4,174	4,127	4,647	4,051	3,977	3,414
Removed	(2,598)	(2,967)	(2,917)	(3,165)	(3,058)	(3,455)	(3,080)	(3,423)	(2,764)
End of Year	52,413	53,478	54,554	55,563	56,632	57,824	58,795	59,349	59,999

(A) used H's from J. Frank, not these

SCHEDULE A**Development of Actuarial Value of Assets**

Valuation Date:		June 30, 2002	June 30, 2003	2004	2005	2006
A.	Actuarial Value Beginning of Year	\$9,106,571,729	\$ 9,213,992,836			
B.	Market Value End of Year	7,558,666,711	7,522,414,151			
C.	Market Value Beginning of Year	8,329,037,579	7,558,666,711			
D.	Cash Flow					
D1.	Contributions	547,183,221	595,329,458			
D2.	Other revenues	-	-			
D3.	Net transfers	365,587	(917,730)			
D4.	Benefit Payments	(653,415,307)	(707,194,558)			
D5.	Administrative Expenses	-	-			
D6.	Net	(105,866,499)	(112,782,830)			
E.	Investment Income					
E1.	Market Total: B - C - D6	(664,504,369)	76,530,270			
E2.	Assumed Rate	8.25%	8.25%			
E3.	Amount for Immediate Recognition	746,925,175	755,502,117			
E4.	Amount for Phased-In Recognition	(1,411,429,544)	(678,971,847)			
F.	Phased-In Recognition of Investment Income					
F1.	Current Year: 0.25 * E4	(352,857,386)	(169,742,962)		(169,742,962)	
F2.	First Prior Year	(337,983,130)	(352,857,386)		(352,857,386)	
F3.	Second Prior Year	79,212,296	(337,983,130)		(169,742,962)	
F4.	Third Prior Year	77,990,651	79,212,296		(337,983,130)	(169,742,962)
F5.	Total Recognized Investment Gain	(533,637,569)	(781,371,182)		(860,583,478)	(522,600,348)
G.	Actuarial Value End of Year:					
	A + D6 + E3 + F5	\$9,213,992,836	\$ 9,075,340,941			
H.	Difference Between Market & Actuarial Values:					
		(1,655,326,125)	(1,552,926,790)		(692,343,311)	(169,742,962)
I.	Health Care Valuation Assets	335,233,043	303,556,610			
J.	Basic Benefits Valuation Assets	\$8,878,759,793	\$ 8,771,784,331			

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, 2003

	<u>Market Value</u>	<u>Actuarial Value</u>
1. Assets at June 30, 2002	\$7,558,666,711	\$9,213,992,836
2. Contributions and Misc. Revenue	594,411,728	594,411,728
3. Investment Increment	76,530,270	(25,869,065)
4. Benefit Payments	(707,194,558)	(707,194,558)
5. Assets at June 30, 2003 (1) + (2) + (3) + (4)	\$ 7,522,414,151	\$ 9,075,340,941
6. Investment Increment/Mean Assets*	1.0%	(0.3)%

* 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:

Service	Base (Economy)	Merit & Seniority	Total Increase
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:

Age	Male	Female
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:

Service	Rate
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, 2003

Contributions for Basic Benefits	Members contribute 9% of pay (10% effective July 1, 2003) and employers contribute 14% of pay. Employer contributions not required to finance basic benefits are allocated to the health care program.
Final Average Salary	Average annual salary over the member's three highest years of service.
Normal Retirement	
Condition for Retirement	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	The annual retirement allowance payable is the greater of: <ol style="list-style-type: none"> 1. Money Purchase - the greater of : The sum of: <ol style="list-style-type: none"> a. An annuity based on the value of the member's accumulated contributions at retirement b. A pension equal to the annuity c. \$40 multiplied by the member's years of service prior to 9/1/1937. <p>or:</p> d. For members who have 10 or more years of service credit prior to 10/1/1956, an annual benefit of \$180. 2. Defined Benefit - the greater of: The sum of: <ol style="list-style-type: none"> a. 2.2% of final average salary multiplied by the member's years of service up to 30, b. 2.5% of final average salary multiplied by the member's years of service in excess of 30, <p>or:</p> c. \$86 multiplied by the years of service.

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 base maximum monthly benefit, and the base maximum monthly benefit will be actuarially reduced. A member selecting the partial lump-sum option may also select any of the regular options, which would result in a further reduction in the monthly benefit. 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.

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 9% of his pay by payroll deductions (10% effective July 1, 2003).

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, 2003

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		
Superannuation Retirement						
Straight Life Allowance - Benefit Terminating at Death						
Males	3,973	76.5%	0.0%	23.5%	\$38,667,667	\$344,156,981
Females	<u>24,873</u>	78.2%	0.0%	21.8%	<u>161,578,410</u>	<u>1,531,513,812</u>
Total	28,846				\$200,246,077	\$1,875,670,793
Option II Allowance - Joint and Survivor Benefits						
Males	6,741	80.9%	0.0%	19.1%	\$79,216,386	\$937,004,982
Females	<u>9,318</u>	86.1%	0.0%	13.9%	<u>74,944,050</u>	<u>885,247,349</u>
Total	16,059				\$154,160,436	\$1,822,252,331
Option III Allowance - Life Benefits With Guaranteed Benefits						
Males	417	74.3%	0.1%	25.6%	\$3,193,069	\$28,123,190
Females	<u>923</u>	76.1%	0.0%	23.9%	<u>5,136,588</u>	<u>49,295,437</u>
Total	1,340				\$8,329,657	\$77,418,627
Allowance to Survivor Beneficiary of Deceased Superannuation Retirant Who Elected Option II - Life Benefit						
Males	856	70.7%	0.2%	29.1%	\$2,771,891	\$22,639,802
Females	<u>3,673</u>	64.8%	0.2%	35.0%	<u>20,705,531</u>	<u>169,810,329</u>
Total	4,529				\$23,477,422	\$192,450,131

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, 2003
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		
Allowance to Survivor Beneficiary of Deceased Superannuation Retirant						
Who Elected Option III - Guaranteed Period Only						
Males	20	81.5%	0.0%	18.5%	\$106,196	\$501,863
Females	<u>46</u>	76.5%	0.0%	23.5%	<u>285,174</u>	<u>1,189,216</u>
Total	66				\$391,370	\$1,691,079
Total for Superannuation Allowances Being Paid						
Males	12,007	79.1%	0.0%	20.8%	\$123,955,209	\$1,332,426,818
Females	<u>38,833</u>	79.4%	0.0%	20.6%	<u>262,649,753</u>	<u>2,637,056,143</u>
Total	50,840				\$386,604,962	\$3,969,482,961
Disability Retirement						
Straight Life Allowance - Benefit Terminating at Death						
Males	1,656	81.5%	0.0%	18.5%	\$24,724,368	\$212,380,469
Females	<u>3,470</u>	81.2%	0.0%	18.8%	<u>29,162,259</u>	<u>291,493,843</u>
Total	5,126				\$53,886,627	\$503,874,312
Total Benefits Being Paid From Annuity and Pension Reserve Fund						
Males	13,663	79.5%	0.0%	20.5%	\$148,679,576	\$1,544,807,287
Females	<u>42,303</u>	79.5%	0.0%	20.4%	<u>291,812,013</u>	<u>2,928,549,986</u>
Total	55,966				\$440,491,589	\$4,473,357,273

**Annuity and Pension Reserve Fund
Retirants June 30, 2003
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	\$53,008	3	\$53,008
35-39			39	605,177	39	605,177
40-44			175	2,796,361	175	2,796,361
45-49	35	\$926,869	338	5,439,164	373	6,366,033
50-54	348	9,427,512	614	9,134,666	962	18,562,178
55-59	1,045	19,381,176	864	10,511,307	1,909	29,892,482
60-64	5,120	53,058,031	1,062	11,184,514	6,182	64,242,544
65-69	8,813	81,170,895	748	6,656,450	9,561	87,827,345
70-74	9,356	75,416,917	560	3,860,335	9,916	79,277,251
75-79	8,955	60,694,996	385	2,161,235	9,340	62,856,231
80-84	7,160	40,023,838	248	1,186,100	7,408	41,209,939
85-89	3,851	16,873,862	75	259,118	3,926	17,132,980
90-94	1,303	4,752,428	14	37,012	1,317	4,789,440
95-99	227	879,047	1	2,181	228	881,228
100	11	45,561			11	45,561
101	10	30,868			10	30,868
102	4	36,746			4	36,746
103	4	9,902			4	9,902
104	2	5,033			2	5,033
105 & Over	1	2,487			1	2,487
Total	46,245	\$362,736,170	5,126	\$53,886,627	51,371	\$416,622,797

**Annuity and Pension Reserve Fund
Survivors of Retirants June 30, 2003
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	3	\$5,740	1	\$6,360	4	\$ 12,100
20-24	5	18,257			5	18,257
25-29	3	23,377			3	23,377
30-34	3	8,111			3	8,111
35-39	3	32,949			3	32,949
40-44	11	24,155	3	12,042	14	36,197
45-49	38	153,126	4	16,469	42	169,595
50-54	48	229,840	9	39,441	57	269,281
55-59	83	597,337	2	1,996	85	599,333
60-64	140	906,123	4	11,347	144	917,470
65-69	367	2,616,372	11	59,662	378	2,676,034
70-74	639	4,356,205	15	68,900	654	4,425,105
75-79	1,043	5,846,073	12	135,183	1,055	5,981,256
80-84	1,044	4,523,346	5	39,970	1,049	4,563,316
85-89	748	2,881,831			748	2,881,831
90-94	285	1,057,513			285	1,057,513
95-99	61	182,903			61	182,903
100	3	7,884			3	7,884
101	2	6,280			2	6,280
102						
103						
104						
105 & Over						
Total	4,529	\$23,477,422	66	\$391,370	4,595	\$23,868,792

Survivor Benefit Fund
Beneficiaries June 30, 2003
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		
Benefits Being Paid From Survivor Benefit Fund						
Males	1,571	84.2%	0.0%	15.7%	\$6,510,440	\$89,227,391
Females	<u>2,462</u>	75.5%	0.1%	24.5%	14,209,991	117,885,858
Total	4,033	78.2%	0.1%	21.7%	\$20,720,431	\$207,113,249

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 June 30, 2003
Current Annual Total Benefits by Attained Age

Attained Age	Totals	
	Number	Annual Benefits
Under 20	53	\$ 328,709
20-24	14	91,418
25-29	4	22,818
30-34	5	56,101
35-39	18	186,674
40-44	64	557,889
45-49	112	1,019,217
50-54	157	1,344,148
55-59	251	1,645,870
60-64	435	2,546,584
65-69	681	3,547,585
70-74	709	3,475,177
75-79	660	2,713,066
80-84	480	1,821,739
85-89	289	1,024,450
90-94	81	267,335
95-99	18	64,237
100		
101		
102	1	5,056
103	1	2,359
104		
105 & Over		
Total	4,033	\$20,720,431

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
Total Active Member Data as of June 30, 2003
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	838							838	\$ 4,467,867
20 - 24	4,923	122						5,045	44,233,793
25 - 29	4,749	759	40					5,548	79,144,935
30 - 34	6,277	1,766	413	43				8,499	138,522,701
35 - 39	8,569	3,450	1,093	567	125			13,804	227,604,972
40 - 44	10,098	6,138	2,535	1,437	914	144		21,266	384,081,810
45 - 49	7,563	6,129	4,031	2,618	1,311	845	98	22,595	461,363,858
50 - 54	4,628	3,684	3,491	3,500	1,899	923	305	18,430	405,436,257
55 - 59	2,968	1,956	2,033	2,683	2,293	1,342	324	13,599	304,252,580
60	464	320	276	381	411	287	89	2,228	48,829,831
61	379	229	243	290	328	254	91	1,814	39,398,292
62	301	186	179	236	261	234	95	1,492	32,539,550
63	250	167	138	203	213	195	101	1,267	26,984,186
64	192	138	134	174	178	176	98	1,090	22,650,094
65	198	109	119	140	158	148	92	964	19,048,034
66	181	98	73	88	93	122	91	746	13,805,688
67	140	84	64	78	71	67	95	599	10,776,832
68	115	72	55	55	64	72	82	515	9,373,390
69	107	61	41	43	52	54	60	418	6,756,078
70 & Over	391	262	171	176	154	179	225	1,558	23,018,099
Totals	53,331	25,730	15,129	12,712	8,525	5,042	1,846	122,315	\$ 2,302,288,847

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

Age: 46.0 years
Service: 8.6 years
Annual Pay: \$18,823

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
Male Active Member Data as of June 30, 2003
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	436							436	\$ 2,341,497
20 - 24	2,232	53						2,285	21,041,790
25 - 29	1,893	318	18					2,229	33,810,956
30 - 34	1,847	606	181	16				2,650	52,772,327
35 - 39	1,899	730	381	266	70			3,346	79,014,148
40 - 44	2,240	914	559	578	518	78		4,887	127,406,077
45 - 49	2,109	988	617	644	598	498	57	5,511	153,684,476
50 - 54	1,607	802	604	589	488	344	162	4,596	130,938,721
55 - 59	1,283	655	472	454	363	201	108	3,536	96,438,676
60	218	134	79	105	59	35	17	647	17,452,018
61	218	103	95	77	43	33	18	587	14,712,516
62	182	97	61	58	50	30	13	491	12,207,136
63	143	85	56	59	38	18	10	409	9,814,253
64	97	70	55	61	32	22	11	348	8,349,525
65	100	53	54	40	33	20	8	308	7,066,408
66	102	54	31	18	24	10	12	251	5,006,910
67	79	43	29	20	10	7	13	201	3,877,239
68	66	50	27	21	16	4	7	191	3,619,529
69	47	31	24	11	8	8	5	134	2,255,943
70 & Over	168	125	102	73	35	17	19	539	8,703,045
Totals	16,966	5,911	3,445	3,090	2,385	1,325	460	33,582	\$ 790,513,190

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

Age: 45.1 years
Service: 7.9 years
Annual Pay: \$23,540

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
Female Active Member Data as of June 30, 2003
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	402							402	\$ 2,126,370
20 - 24	2,691	69						2,760	23,192,003
25 - 29	2,856	441	22					3,319	45,333,979
30 - 34	4,430	1,160	232	27				5,849	85,750,374
35 - 39	6,670	2,720	712	301	55			10,458	148,590,824
40 - 44	7,858	5,224	1,976	859	396	66		16,379	256,675,733
45 - 49	5,454	5,141	3,414	1,974	713	347	41	17,084	307,679,382
50 - 54	3,021	2,882	2,887	2,911	1,411	579	143	13,834	274,497,536
55 - 59	1,685	1,301	1,561	2,229	1,930	1,141	216	10,063	207,813,904
60	246	186	197	276	352	252	72	1,581	31,377,813
61	161	126	148	213	285	221	73	1,227	24,685,776
62	119	89	118	178	211	204	82	1,001	20,332,414
63	107	82	82	144	175	177	91	858	17,169,933
64	95	68	79	113	146	154	87	742	14,300,569
65	98	56	65	100	125	128	84	656	11,981,626
66	79	44	42	70	69	112	79	495	8,798,778
67	61	41	35	58	61	60	82	398	6,899,593
68	49	22	28	34	48	68	75	324	5,753,861
69	60	30	17	32	44	46	55	284	4,500,135
70 & Over	223	137	69	103	119	162	206	1,019	14,315,054
Totals	36,365	19,819	11,684	9,622	6,140	3,717	1,386	88,733	\$ 1,511,775,657

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

Age: 46.4 years
Service: 8.9 years
Annual Pay: \$17,037

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

Active Member as of June 30, 2003

By Annual Pay

Annual Pay	Number of Active Members			Portion of Total Number	
	Men	Women	Totals	Group	Cumulative
Less than \$1,000	294	486	780	0.6%	0.6%
\$1,000 - 1,999	1,263	1,615	2,878	2.4%	3.0%
2,000 - 2,999	1,920	2,518	4,438	3.6%	6.6%
3,000 - 3,999	1,632	3,063	4,695	3.8%	10.4%
4,000 - 4,999	1,178	2,957	4,135	3.4%	13.8%
5,000 - 5,999	971	2,809	3,780	3.1%	16.9%
6,000 - 6,999	769	2,940	3,709	3.0%	19.9%
7,000 - 7,999	712	3,006	3,718	3.0%	22.9%
8,000 - 8,999	703	2,901	3,604	2.9%	25.8%
9,000 - 9,999	677	3,030	3,707	3.0%	28.8%
10,000 - 11,999	1,317	6,926	8,243	6.7%	35.5%
12,000 - 14,499	1,583	10,263	11,846	9.7%	45.2%
14,500 - 15,999	944	5,732	6,676	5.5%	50.7%
16,000 - 17,999	1,096	6,812	7,908	6.5%	57.2%
18,000 - 19,999	989	5,979	6,968	5.7%	62.9%
20,000 - 24,999	2,391	9,832	12,223	10.0%	72.9%
25,000 - 29,999	3,397	7,005	10,402	8.5%	81.4%
30,000 and over	11,746	10,859	22,605	18.5%	100.0%
Totals	33,582	88,733	122,315		

SCHEDULE E**GLOSSARY**

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

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

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

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

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

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

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.