# SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO 

## REPORT ON THE ANNUAL ACTUARIAL BASIC BENEFITS VALUATION

AND

GAIN/LOSS ANALYSIS OF FINANCIAL EXPERIENCE

PREPARED AS OF JUNE 30, 2007

# buckconsultants an Acs company 

November 1, 2007
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, 2007. 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, 2007.
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 Schedule E.

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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Director, Consulting Actuary


Janet H. Cranna, F.S.A., E.A. Principal, Consulting Actuary

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## REPORT ON THE ANNUAL VALUATION OF THE SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO PREPARED AS OF JUNE 30, 2007

## SECTION I-SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2007, 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 | 06/30/07 | 06/30/06 |
| :---: | :---: | :---: |
| Active members included in valuation |  |  |
| Number | 123,013 | 123,266 |
| Annual compensation | \$ 2,603,300,211 | \$ 2,553,272,600 |
| Retirees |  |  |
| Number | 63,529 | 62,521 |
| Annual allowances | \$ 607,386,140 | \$ 566,770,892 |
| Deferred Vesteds |  |  |
| Number | 10,681 | 10,183 |
| Annual deferred allowances | \$ 34,524,698 | \$ 31,615,576 |
| Assets (net of Health Care Assets) |  |  |
| Market related actuarial value | \$10,640,426,463 | \$ 9,541,787,220 |
| Market value | \$ 11,711,235,288 | \$ 9,980,203,361 |
| Unfunded accrued liability | \$ 2,734,441,499 | \$ 3,154,886,157 |
| Employer contribution rate |  |  |
| Normal | 3.98\% | 3.95\% |
| Accrued liability | 5.84 | 6.73 |
| Total | 9.82\% | 10.68 \% |
| Accrued liability payment period | 29 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. 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 reports.
8. Valuations results as of June 30,2001 were restated by the previous actuary after issuance of the valuation report. This report reflects those restatements.
9. The valuation results produce an employer contribution requirement of $9.82 \%$ of payroll. This contribution rate includes an adjustment due to a restatement of health care assets. The value of such restatement, which increases the unfunded accrued liability, is approximately $\$ 71.6$ million as of June 30, 2007. Although this amount was credited on a monthly basis to the health care fund through June 2007, annual valuations will recognize this adjustment over the established amortization period of the unfunded accrued liability. This resulted in an increase in the required pension contribution of $0.15 \%$ of payroll for this valuation year.
10. The table on the following page provides a history of some pertinent figures.

School Employees Retirement System of Ohio
Comparative Schedule

| Valuation <br> Date <br> June 30 | Active Members |  |  |  | Retired Lives |  |  |  | Accrued <br> Liability | Valuation Assets | UAAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Annual Benefits |  |  |  |  |
|  | Number | Payroll \$ Millions | Average Salary |  | Retired | Activel <br> Retired |  |  |  |  |  |
|  |  |  | \$ | \% Incr. |  |  | \$ Millions | \% of Payroll | \$ Millions |  |  |
| 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* |
| 2006 | 123,266 | 2,553 | 20,714 | 3.8 | 62,521 | 2.0 | 566.8 | 22.2 | 12,627 | 9,542 | 3,155* |
| 2007 | 123,013 | 2,603 | 21,163 | 2.2 | 63,529 | 1.9 | 607.4 | 23.3 | 13,303 | 10,640 | 2,734* |

* After the adjustment to reflect health care asset restatement.


## 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, 2007 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

## Active Members

|  |  | Group Averages |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Number | Payroll | Salary | Age | Service |
|  |  |  |  |  |
| 123,013 | $\$ 2,603,300,211$ | $\$ 21,163$ | 47.5 | 9.4 |

The total number of active members includes 77,607 vested members and 45,406 non-vested members.

## Retired Lives

|  |  | Annual <br> Type of Benefit Payment | No. | Group Averages |  |
| :--- | ---: | ---: | ---: | :---: | :---: |
|  |  |  | Benefit | Age |  |
| Retirement | 54,000 | $\$ 515,226,330$ | $\$ 9,541$ | 75.0 |  |
| Disability | 5,294 | $66,210,660$ | 12,507 | 63.9 |  |
| Survivor | 4,235 | $25,949,150$ | 6,127 | 70.7 |  |
| Total in SERS | $\mathbf{6 3 , 5 2 9}$ | $\mathbf{\$ 6 0 7 , 3 8 6 , 1 4 0}$ | $\mathbf{\$ 9 , 5 6 1}$ | $\mathbf{7 3 . 8}$ |  |

This valuation also includes 83,985 inactive members eligible for a contribution refund only (including 40,974 members not reported in the data files who had completed 1 or more years of service before terminating). Their contributions totaled $\$ 106,163,914$ as of June 30,2007 . There were also 10,681 terminated vested members with annual deferred pension benefits of $\$ 34,524,698$. Included in the "Retirement" numbers in the above table are 7,449 re-employed retirants with account balances of $\$ 39,392,054$ (including employer contributions and interest), 182 re-retirees receiving only an annuity from their contributions and their employers' matching contributions, and 219 re-retirees receiving such annuities in addition to their regular pension benefit. The sum of the annual annuity payments attributable to these re-retirees is $\$ 1,130,520$.

## 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, 2007 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2006. 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| ASSETS | JUNE 30, 2007 | JUNE 30, 2006 |
| :---: | :---: | :---: |
| Current actuarial value of assets | \$ 10,640,426,463 | \$ 9,541,787,220 |
| Future member contributions | \$ 2,143,707,359 | \$ 2,130,474,234 |
| Prospective employers' contributions |  |  |
| Normal contributions | \$ 788,955,593 | \$ 778,213,038 |
| Unfunded accrued liability contributions * | \$ 2,662,796,582 | \$ 3,084,865,936 |
| Total prospective contributions | \$ 3,451,752,175 | \$ 3,863,078,974 |
| Total assets | \$ 16,235,885,997 | \$ 15,535,340,428 |
| LIABILITIES |  |  |
| Present value of benefits payable on account of present retired members and beneficiaries | \$ 6,413,163,605 | \$ 6,006,232,038 |
| Present value of benefits payable on account of active members | 9,357,284,234 | 9,103,422,283 |
| Present value of benefits payable on account of inactive and deferred vested members for service rendered before the valuation date | 465,438,158 | 425,686,107 |
| Total liabilities | \$ $\underline{\underline{16,235,885,997}}$ | \$ 15,535,340,428 |

Included in the retiree liability shown above is the liability attributable to re-retiree annual annuity payments. Such liability amounts to \$10,426,214 for 2007 and $\$ 9,216,710$ for 2006.

* 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, 2007.

Total Assets
Current actuarial assets as of the valuation date equaled $\$ 10,640,426,463$. Future member contributions were valued to be $\$ 2,143,707,359$. Prospective employers' contributions were calculated to be $\$ 3,451,752,175$, of which $\$ 788,955,593$ is attributable to service rendered after the valuation date (normal contributions) and $\$ 2,662,796,582$ 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 \$16,235,885,997 as of June 30, 2007.

## Total Liabilities

The present value of benefits payable on account of presently retired members and beneficiaries totaled $\$ 6,413,163,605$ as of the valuation date. The present value of future benefit payments on behalf of active members amounted to $\$ 9,357,284,234$. In addition, the present value of benefits for inactive members, due to service rendered before the valuation date, was calculated to be $\$ 465,438,158$.

Therefore, the balance sheet shows the present value for all prospective benefit payments under the System to be $\$ 16,235,885,997$ as of June 30, 2007.

Section 3309.47 of State law requires that active members contribute between $8 \%$ and $10 \%$ of annual compensation to the System. Since July 1, 2003 the members have been required to contribute 10\% of compensation.

Section 3309.49 requires that the employers contribute a certain percentage, not to exceed $14 \%$, of the annual compensation of members to cover the normal contributions and a certain percentage to cover the accrued liability contributions of the System.

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 | \$7,694,225,127 | \$ 5,914,205,896 |
| Death | 133,235,335 | 89,487,480 |
| Disability | 628,987,180 | 322,695,363 |
| Termination | 736,991,859 | $(9,921,216)$ |
| Medicare Part-B | 153,711,025 | 102,385,442 |
| Death After Retirement | 10,133,708 | 5,768,317 |
| Total | \$9,357,284,234 | \$ 6,424,621,282 |
| Retirees |  |  |
| Retirement/Survivor/Disability | \$6,203,085,775 | \$6,203,085,775 |
| Medicare Part-B | 188,024,120 | 188,024,120 |
| Death After Retirement | 22,053,710 | 22,053,710 |
| Total | \$6,413,163,605 | \$6,413,163,605 |
| Deferred Vested Members | 275,427,311 | 275,427,311 |
| Inactive Members | 190,010,847 | 190,010,847 |
| Total Actuarial Values | \$ 16,235,885,997 | \$ 13,303,223,045 |
| Actuarial Value of Assets |  | 10,640,426,463 |
| Unadjusted Unfunded Actuarial Accrued Liability |  | \$2,662,796,582 |
| Adjustment for Restatement of Health Care Assets |  | \$ 71,644,917 |
| Adjusted Unfunded Actuarial Accrued Liability |  | \$ 2,734,441,499 |

## 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, 2007 is shown below.
$\$$ millions
(1) UAAL* as of June 30, 2006 ..... \$3,154.9
(2) Normal cost from last valuation ..... 103.0
(3) Actual employer contributions ..... 252.4
(4) Interest accrual: (1) x . $0800+[[(2)-(3)] \times .0392]$ ..... 246.5
(5) Expected UAAL before changes: $(1)+(2)-(3)+(4)$ ..... 3,252.0
(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 ..... 0.0
(10) Expected UAAL after changes: $(5)+(6)+(7)+(8)+(9)$ ..... 3,252.0
(11) Actual UAAL as of June 30, 2007 ..... 2,734.4
(12) Gain (loss) (10) - (11) ..... $\$ 517.6$
(13) Gain (loss) as percent of actuarial accrued liabilities at start of year (\$12,626.7) ..... 4.1\%

* 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, 2007
> (\$ Millions)

Beginning of Year Accrued Liabilities

## Type of Risk Area

## Economic Risk Areas

Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.

Investment Income. If there is greater investment income than assumed, there is a gain. If less income, a loss.

## Non-Economic Risk Areas

Age \& Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.

Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.

Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.

Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.

New Members. Additional unfunded accrued liability will produce a loss.

Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.

Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.

Gain (or Loss) During Year From Financial Experience
Non-Recurring Items. Adjustments for plan amendments, assumption changes, or method changes.

Composite Gain (or Loss) During Year
\$ 12,626.7
\$ Gain (Loss)
$\$ 121.0$
504.3
3.98

Gain (Loss) as a
\% of Accrued Liabilities
0.96 \%
13.4
0.9
\$517.6
$\underline{0.0}$
$\$ 517.6$
0.11
0.01
(0.01)
0.00
$4.10 \%$

## OHIO SERS

GAIN (LOSSES) BY RISK AREA
During the Twelve Months Ended June 30, 2007

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 2007-2008 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 | 8.59\% |  |  |  |
| Disability Benefits | 1.42 |  |  |  |
| Survivor Benefits | 0.21 |  |  |  |
| Refunds | 3.45 |  |  |  |
| Total | 13.67\% | 0.02\% | 0.29\% | 13.98\% |
| UAAL Payment | 5.46 | 0.01 | 0.37 | 5.84 |
| Total Contribution | 19.13\% | 0.03\% | 0.66\% | 19.82\% |
| Member Contribution | 10.00\% | 0.00 | 0.00 | 10.00\% |
| Employer Contribution | 9.13\% | 0.03\% | 0.66\% | 9.82\% |

## 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, 2007

| GROUP | NUMBER |
| :--- | :---: |
| Retired participants and beneficiaries |  |
| currently receiving benefits | 63,529 |
| Terminated participants and beneficiaries |  |
| entitled to benefits but not yet receiving |  |
| benefits | 94,666 |
| Active Participants | $\underline{123,013}$ |
| Total | 281,208 |

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

## SCHEDULE OF FUNDING PROGRESS

 (\$ Thousands)| Plan Year Ended | (1) <br> Actuarial Value of Assets | (2) <br> Actuarial <br> Accrued <br> Liability <br> (AAL) <br> Entry Age | (3) <br> Percent <br> Funded <br> (1)/(2) | (4) <br> Unfunded AAL (2)-(1) | (5) <br> Annual Covered Payroll | (6) <br> Unfunded AAL as a Percentage of Covered Payroll (4)/(5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |
| 06/30/06 | 9,541,787 | 12,626,653 | 75.6 | 3,154,886* | 2,553,273 | 123.6 |
| 06/30/07 | 10,640,426 | 13,303,223 | 80.0 | 2,734,441* | 2,603,300 | 105.0 |

$\wedge$ After change in benefit provisions.
\# After change in actuarial assumptions.

* After restatement of health care assets
$+\quad$ 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 $\$ 2,734,441,499$ over a 29 -year period from the valuation date.

## 2007-2008 FISCAL YEAR <br> ANNUAL REQUIRED CONTRIBUTION (ARC) BASED ON THE VALUATION AS OF JUNE 30, 2007

| ANNUAL REQUIRED CONTRIBUTION (ARC) | RATE |
| :--- | :---: |
| Normal | $3.98 \%$ |
| Accrued liability | $\frac{5.84}{9.82 \%}$ |
| Total |  |

4. Additional information as of June 30, 2007 follows.

| Valuation date | 06/30/07 |
| :---: | :---: |
| Actuarial cost method | Entry age |
| Amortization method | Level percent open |
| Remaining amortization period | 29 years |
| Asset valuation method | 4-year smoothed market |
| Actuarial assumptions: |  |
| Investment rate of return^ | 8.00\% |
| Projected salary Increases* | 4.50-24.75\% |
| $\wedge$ Includes price inflation at | 3.50\% |
| * Includes wage inflation at | 4.00\% |
| Cost-of-living adjustments | 3.00\% |

## Schedule of Employer Contributions

| Fiscal Year <br> $\mathbf{7 - 1 / 6 - 3 0}$ | Valuation <br> Date 6-30 | Annual Required <br> Contribution | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
| $1998-99$ | 1998 | $\$ 127,195,004$ | $100.0 \%$ |
| $1999-00$ | 1999 | $98,148,589$ | 100.0 |
| $2000-01$ | 2000 | $78,459,360$ | 100.0 |
| $2001-02$ | 2001 | $110,795,693$ | 100.0 |
| $2002-03$ | 2002 | $181,236,112$ | 100.0 |
| $2003-04$ | 2003 | $212,193,468$ | 100.0 |
| $2004-05$ | 2004 | $256,046,087$ | 100.0 |
| $2005-06^{\star \wedge}$ | 2005 | $294,035,898$ | 96.5 |
| $2006-07 \wedge$ | 2006 | $278,509,373$ | 90.6 |
| $2007-08$ | 2007 | $260,669,755$ |  |

* ARC decreased to $\$ 265,813,818$ due to the adoption of the new actuarial assumptions retroactive to July 1, 2005.
$\wedge$ The percentage contributed is less than $100 \%$ due to contributions made toward the health care adjustment.

Solvency Tests
(\$ in Millions)

| June 30 | Actuarial Accrued Liabilities for |  |  | Net Assets Available for Benefits | Portions of Accrued Liabilities covered by Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) <br> Accumulated Employee and Inactive Contributions | (2) <br> Retirees and Beneficiaries Currently Receiving Benefits | (3) <br> Active and Inactive Members Employer Financed Portion |  |  |  |  |
|  |  |  |  |  | (1) |  | (3) |
| 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 |
| 2006 | 2,064 | 6,006 | 4,557 | 9,542 | 100 | 100 | 32.3 |
| 2007 | 2,180 | 6,413 | 4,710 | 10,640 | 100 | 100 | 43.5 |

Schedule of Active Member Valuation Data

| Valuation Date | Active members |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Annual Payroll <br> (in millions) | Annual Average <br> Pay | \% Increase in <br> Average Pay |
|  | 109,878 | $\$ 1,651.9$ | $\$ 15,456$ |  |
| 1999 | 110,175 | $1,768.1$ | 16,048 | $3.3 \%$ |
| 2000 | 113,811 | $1,866.3$ | 16,398 | 3.8 |
| 2001 | 115,684 | $1,974.1$ | 17,065 | 2.2 |
| 2002 | 120,254 | $2,175.7$ | 18,093 | 4.1 |
| 2003 | 122,315 |  |  | 6.0 |
| 2004 | 123,139 | $2,302.3$ | 18,823 |  |
| 2005 | 122,855 | $2,394.1$ | 19,442 | 4.0 |
| 2006 | 123,266 | $2,452.5$ | 19,963 | 3.3 |
| 2007 | 123,013 | $2,553.3$ | 20,714 | 2.7 |
|  |  | $2,603.3$ | 21,163 | 3.8 |

Schedule of Retirants Added to And Removed From Rolls

|  | Fiscal year ended June 30 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Beginning of Year | 54,554 | 55,563 | 56,632 | 57,824 | 58,795 | 59,349 | 59,999 | 60,569 | 61,433 | 62,521 |
| Added | 4,174 | 4,127 | 4,647 | 4,051 | 3,977 | 3,414 | 3,013 | 3,683 | 3,750 | 3,596 |
| Removed | $(3,165)$ | $(3,058)$ | $(3,455)$ | $(3,080)$ | $(3,423)$ | $(2,764)$ | $(2,443)$ | $(2,819)$ | $(2,662)$ | $(2,588)$ |
| End of Year | 55,563 | 56,632 | 57,824 | 58,795 | 59,349 | 59,999 | 60,569 | 61,433 | 62,521 | 63,529 |

For the fiscal year ended June 30, 2007 the annual benefits for the 3,596 members added to the rolls totaled $\$ 44,864,781$. The annual benefits for the 2,588 members removed from the rolls totaled $\$ 17,588,777$.

## SCHEDULE A

Development of Actuarial Value of Assets

|  | Valuation Date: | June 30, 2006 | June 30, 2007 | June 30, 2008 | June 30, 2009 | June 30, 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuarial Value Beginning of Year | \$ 9,160,047,000 | \$ 9,837,349,153 |  |  |  |
|  | Market Value End of Year | 10,275,765,294 | 12,097,590,658 |  |  |  |
| C. | Market Value Beginning of Year | 9,269,067,708 | 10,275,765,294 |  |  |  |
| D. | Cash Flow |  |  |  |  |  |
| D1. | Contributions | 686,485,096 | 700,075,227 |  |  |  |
| D2. | Other revenues | 70,831,789 | 91,823,048 |  |  |  |
| D3. | Net transfers | $(3,587,709)$ | $(2,873,755)$ |  |  |  |
| D4. | Benefit Payments | $(855,547,936)$ | $(886,970,001)$ |  |  |  |
| D5. | Administrative Expenses | 0 | - 0 |  |  |  |
| D6. | Net | $(101,818,760)$ | $(97,945,481)$ |  |  |  |
|  | Investment Income |  |  |  |  |  |
| E1. | Market Total: B - C - D6 | 1,108,516,346 | 1,919,770,845 |  |  |  |
| E2. | Assumed Rate | 8.00\% | 8.00\% |  |  |  |
| E3. | Amount for Immediate Recognition | 728,731,010 | 783,070,113 |  |  |  |
| E4. | Amount for Phased-In Recognition | 379,785,336 | 1,136,700,732 |  |  |  |
|  | Phased-In Recognition of Investment Income |  |  |  |  |  |
| F1. | Current Year: 0.25 * E4 | 94,946,334 | 284,175,183 |  |  |  |
| F2. | First Prior Year | 28,390,611 | 94,946,334 | 284,175,183 |  |  |
| F3. | Second Prior Year | 96,795,920 | 28,390,611 | 94,946,334 | 284,175,183 |  |
| F4. | Third Prior Year | $(169,742,962)$ | 96,795,920 | 28,390,611 | 94,946,334 | 284,175,183 |
| F5. | Total Recognized Investment Gain | 50,389,903 | 504,308,048 | 407,512,128 | 379,121,517 | 284,175,183 |
|  | Actuarial Value End of Year: $A+D 6+E 3+F 5$ <br> (not less than $80 \%$ or greater than $120 \%$ of $B$ ) | \$9,837,349,153 | \$11,026,781,833 |  |  |  |
| H. | Difference Between Market \& Actuarial Values: | 438,416,141 | 1,070,808,825 | 663,296,698 | 284,175,183 | 0 |
|  | Health Care Valuation Assets | 295,561,933 | 386,355,370 |  |  |  |
| J. | Basic Benefits Valuation Assets | \$9,541,787,220 | \$10,640,426,463 |  |  |  |

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, 2007

Market Value

1. Assets at June 30, 2006
2. Contributions and Misc. Revenue
3. Investment Increment
4. Benefit Payments
5. Assets at June 30, 2007
(1) $+(2)+(3)+(4)$
6. Investment Increment/Mean Assets*
\$10,275,765,294
789,024,520
1,919,770,845
$(886,970,001)$
\$ 12,097,590,658
18.8\%
13.2\%

* Based on the approximation formula: $\mathrm{I} /[.5 \times(\mathrm{A}+\mathrm{B}-\mathrm{I})]$, 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: 8.00\% 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 | $4.00 \%$ | $20.75 \%$ | $24.75 \%$ |
| 1 | 4.00 | 13.25 | 17.25 |
| 2 | 4.00 | 10.75 | 14.75 |
| 3 | 4.00 | 8.75 | 12.75 |
| 4 | 4.00 | 7.75 | 11.75 |
| 5 | 4.00 | 5.75 | 9.75 |
| 6 | 4.00 | 4.75 | 8.75 |
| 7 | 4.00 | 3.75 | 7.75 |
| 8 | 4.00 | 2.75 | 6.75 |
| 9 | 4.00 | 1.75 | 5.75 |
| $10-14$ | 4.00 | 0.75 | 4.75 |
| $15 \&$ Over | 4.00 | 0.50 | 4.50 |

Total covered payroll of the entire membership is assumed to increase 4.00\% per year in the future.
Service Retirement: Representative values of the assumed annual rates of service retirement are as follows:

| Age | Male | Female |
| :---: | :---: | :---: |
| 50 | $40.0 \%$ | $33.0 \%$ |
| 55 | 25.0 | 25.0 |
| 60 | 10.0 | 20.0 |
| 61 | 10.0 | 15.0 |
| 62 | 15.0 | 15.0 |
| 63 | 10.0 | 10.0 |
| 64 | 10.0 | 10.0 |
| 65 | 25.0 | 25.0 |
| 70 | 20.0 | 20.0 |
| 75 | 100.0 | 100.0 |

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

| Service | Rate |
| :---: | :---: |
| 0 | $55.00 \%$ |
| 1 | 20.00 |
| 2 | 15.00 |
| 3 | 10.00 |
| 4 | 7.50 |
| 5 | 6.50 |
| 10 | 5.00 |
| 15 | 3.75 |
| 20 | 3.50 |

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

| Age | Male | Female |
| :---: | :---: | :---: |
| 30 | $.1120 \%$ | $.0075 \%$ |
| 35 | .3710 | .0075 |
| 40 | .4050 | .1570 |
| 45 | .5060 | .1870 |
| 50 | .8250 | .3940 |
| 55 | .8250 | .6080 |

Mortality Rates: Mortality Rates for retirees and survivors are based on the 1994 Group Annuity Mortality table with male ages set back one year and female ages set back one year. Mortality for active members is $60 \%$ of the retiree table for males and $50 \%$ 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 (-1, -1)

| Age | Male | Female |
| :---: | :---: | :---: |
| 20 | $.0484 \%$ | $.0280 \%$ |
| 30 | .0779 | .0331 |
| 40 | .0999 | .0652 |
| 50 | .2326 | .1310 |
| 60 | .7090 | .3863 |
| 70 | 2.1729 | 1.2709 |
| 80 | 5.5861 | 3.5362 |


|  | Disability Retired Members <br> Male |  |
| :---: | :---: | :---: |
| Age | Female |  |

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. The actuarial value of assets shall not be less than $80 \%$ nor greater than $120 \%$ of the market value of assets.

## SCHEDULE C

## SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO Summary of Benefit and Contribution Provisions as of June 30, 2007

Contributions for Basic Benefits

Final Average Salary

## Normal Retirement

Condition for Retirement

Amount of Allowance

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.

Average annual salary over the member's three highest years of service.

Attainment of age 65 with at least five years of creditable service, or completion of 30 years of creditable service, regardless of age.

The annual retirement allowance payable shall not be greater than $100 \%$ of final average salary, and is the greater of:

1. Money Purchase - the greater of :

The sum of:
a. An annuity based on the value of the member's accumulated contributions at retirement
b. A pension equal to the annuity
c. $\quad \$ 40$ multiplied by the member's years of service prior to 9/1/1937.
or:
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:
a. $2.2 \%$ of final average salary multiplied by the member's years of service up to 30,
b. $\quad 2.5 \%$ of final average salary multiplied by the member's years of service in excess of 30 ,
or:
c. $\quad \$ 86$ multiplied by the years of service.

## Early Retirement

Condition for Retirement

Amount of Allowance

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.

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

| Attained <br> Age | Years of Ohio <br> Service Credit |  |  |
| :---: | :---: | :---: | :---: |
| 58 | 25 |  | Percentage |
| 59 | 26 | 80 |  |
| 60 | 27 | 85 |  |
| 61 |  | 88 |  |
|  | 28 | 90 |  |
| 62 |  | 91 |  |
| 63 |  | 94 |  |
|  | 29 | 95 |  |
| 64 |  | 97 |  |

## Disability Retirement

Condition for Retirement

Amount of Allowance

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

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

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

## Death Benefits Prior to Retirement

Death While Eligible to Retire

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

## Survivor (Death-in-Service) Allowances

Condition for Benefit

Upon the death of a member with at least $11 / 2$ years of

Ohio service credit and with at least $1 / 4$ year of Ohio contributing service credit within $21 / 2$ 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.

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:


## Termination Benefits

Refund of Members'
Accumulated Contributions

Deferred Benefits

## Normal Form of Benefit

Optional Forms of Benefit

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

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.

## Single Life Annuity

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.

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

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

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

Amount of Allowance

Benefits Payable Upon Death
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.

Upon termination of employment, a re-employed retirant who has attained age 65 is eligible to receive an annuity based on the amount of his/her accumulated contributions, and an equal amount of employer contributions, plus interest to the effective date of retirement. Effective July 1, 2006 the amount of employer contributions will be determined by the Board. Interest is granted on the reemployed retirant's prior fiscal year account balance, calculated using a rate determined by the SERS Board, compounded annually. The benefit is payable as a lump sum or as an annuity if the amount of such annuity is at least $\$ 25$. Upon termination of employment, a re-employed retirant who has not attained age 65 may request a lump sum refund of his/her own contributions; there is no payment of employer contributions or interest.

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 <br> his pay by payroll deductions. |
| :--- | :--- |
| Employer Contributions | Employer contributions are expressed as percents of <br> member covered payroll. Employers are required to <br> contribute 14\% of payroll. |
| Other Benefits | Re-employed retirant members of SERS are not eligible to <br> receive any of the other benefits provided to regular SERS <br> members. |

## SCHEDULE D

## DETAILED TABULATIONS OF THE DATA

Annuity and Pension Reserve Fund
Retirants and Beneficiaries
June 30, 2007
Type of Benefit, Annual Amount, and Basic Benefit Actuarial Liabilities

| Group | Number | \% of Current Total Benefit |  |  | Current Total Benefit | Actuarial Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Base <br> Allowances | $\begin{aligned} & \text { H.B. } 204 \\ & \text { and } 284 \end{aligned}$ | Retirement Increases |  |  |
| Superannuation Retirement |  |  |  |  |  |  |
| Straight Life Allowance - Benefit Terminating at Death |  |  |  |  |  |  |
| Males | 4,279 | 77.0\% | 0.0\% | 23.0\% | \$ 52,256,038 | \$ 457,528,159 |
| Females | 26,024 | 77.7\% | 0.0\% | 22.3\% | 214,002,596 | 2,034,129,970 |
| Total | 30,303 |  |  |  | \$266,258,634 | \$2,491,658,129 |
| Option II Allowance - Joint and Survivor Benefits |  |  |  |  |  |  |
| Males | 6,955 | 81.3\% | 0.0\% | 18.7\% | \$100,826,817 | \$1,206,344,891 |
| Females | 10,584 | 84.6\% | 0.0\% | 15.4\% | 108,283,551 | 1,282,795,478 |
| Total | 17,539 |  |  |  | \$209,110,368 | \$2,489,140,369 |
| Option III Allowance - Life Benefits With Guaranteed Benefits |  |  |  |  |  |  |
| Males | 347 | 77.0\% | 0.0\% | 23.0\% | \$3,436,762 | \$30,776,985 |
| Females | 892 | 77.0\% | 0.0\% | 23.0\% | 6,388,934 | 63,539,741 |
| Total | 1,239 |  |  |  | \$9,825,696 | \$94,316,726 |
| Allowance to Survivor Beneficiary of Deceased Superannuation Retirant Who Elected Option II - Life Benefit |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Males | 1,106 | 70.5\% | 0.1\% | 29.4\% | \$4,081,913 | \$30,150,214 |
| Females | 3,759 | 63.4\% | 0.1\% | 36.5\% | 25,607,144 | 203,644,706 |
| Total | 4,865 |  |  |  | \$29,689,057 | \$233,794,920 |

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, 2007
Type of Benefit, Annual Amount, and Basic Benefit Actuarial Liabilities (continued)

| Group | Number | \% of Current Total Benefit |  |  | Current Total Benefit | Actuarial <br> Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Base <br> Allowances | H.B. 204 and 284 | Post <br> 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\% | \$163,805 | \$581,731 |
| Females | 34 | 80.0\% | 0.0\% | 20.0\% | 178,770 | 777,591 |
| Total | 54 |  |  |  | \$342,575 | \$1,359,322 |
| Total for Superannuation Allowances Being Paid |  |  |  |  |  |  |
|  |  |  |  |  |  | \$1,725,381,98 |
| Males | 12,707 | 79.5\% | 0.0\% | 20.5\% | \$160,765,335 | 0 |
| Females | 41,293 | 78.8\% | 0.0\% | 21.2\% | 354,460,995 | 3,584,887,486 |
|  |  |  |  |  |  | \$5,310,269,46 |
| Total | 54,000 |  |  |  | \$515,226,330 | 6 |
| Disability Retirement |  |  |  |  |  |  |
| Straight Life Allowance - Benefit Terminating at Death |  |  |  |  |  |  |
| Males | 1,630 | 79.6\% | 0.0\% | 20.4\% | \$29,194,968 | \$268,056,511 |
| Females | 3,664 | 79.6\% | 0.0\% | 20.4\% | 37,015,692 | 386,916,313 |
| Total | 5,294 |  |  |  | \$66,210,660 | \$654,972,824 |
| Total Benefits Being Paid From Annuity and Pension Reserve Fund |  |  |  |  |  |  |
|  |  |  |  |  |  | \$1,993,438,49 |
| Males | 14,337 | 79.5\% | 0.0\% | 20.4\% | \$189,960,303 | 1 |
| Females | 44,957 | 78.9\% | 0.0\% | 21.1\% | 391,476,687 | 3,971,803,799 |
|  |  |  |  |  |  | $\$ 5,965,242,29$ |
| Total | 59,294 |  |  |  | \$581,436,990 | - 0 |

Annuity and Pension Reserve Fund Retirants as of June 30, 2007 Current Annual Total Benefits by Attained Age

| Attained Age | Superannuation |  |  | Disability |  | Totals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  | Annual Benefits | Number | Annual <br> Benefits | Number |  | Annual <br> Benefits |
| Under 20 |  |  |  |  |  |  |  |  |
| 20-24 |  |  |  |  |  |  |  |  |
| 25-29 |  |  |  |  |  |  |  |  |
| 30-34 |  |  |  | 2 | \$ 26,632 | 2 | \$ | 26,632 |
| 35-39 |  |  |  | 24 | 345,714 | 24 |  | 345,714 |
| 40-44 |  |  |  | 97 | 1,666,111 | 97 |  | 1,666,111 |
| 45-49 | 59 | \$ | 1,848,005 | 299 | 5,590,958 | 358 |  | 7,438,963 |
| 50-54 | 431 |  | 13,150,421 | 664 | 11,181,770 | 1,095 |  | 24,332,191 |
| 55-59 | 1,337 |  | 33,028,244 | 930 | 14,493,296 | 2,267 |  | 47,521,540 |
| 60-64 | 5,292 |  | 68,042,291 | 1,064 | 13,676,676 | 6,356 |  | 81,718,967 |
| 65-69 | 9,275 |  | 104,540,985 | 788 | 8,807,955 | 10,063 |  | 113,348,940 |
| 70-74 | 9,653 |  | 98,640,078 | 585 | 5,135,007 | 10,238 |  | 103,775,085 |
| 75-79 | 8,918 |  | 77,296,961 | 407 | 2,982,074 | 9,325 |  | 80,279,035 |
| 80-84 | 7,360 |  | 52,378,743 | 287 | 1,663,361 | 7,647 |  | 54,042,104 |
| 85-89 | 4,646 |  | 27,196,290 | 123 | 566,513 | 4,769 |  | 27,762,803 |
| 90-94 | 1,740 |  | 7,683,816 | 19 | 59,070 | 1,759 |  | 7,742,886 |
| 95-99 | 340 |  | 1,287,710 | 4 | 13,198 | 344 |  | 1,300,908 |
| 100 | 16 |  | 61,933 | 1 | 2,325 | 17 |  | 64,258 |
| 101 | 7 |  | 17,327 |  |  | 7 |  | 17,327 |
| 102 | 1 |  | 3,046 |  |  | 1 |  | 3,046 |
| 103 | 2 |  | 5,252 |  |  | 2 |  | 5,252 |
| 104 | 2 |  | 4,962 |  |  | 2 |  | 4,962 |
| 105 \& Over | 2 |  | 8,634 |  |  | 2 |  | 8,634 |
| Total | 49,081 | \$ | 485,194,698 | 5,294 | \$ 66,210,660 | 54,375 | \$ | 551,405,358 |

Annuity and Pension Reserve Fund
Survivors of Retirants as of June 30, 2007
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 | 1 | \$ 2,971 | 1 | \$ 1,047 | 2 | \$ 4,018 |
| 20-24 | 2 | 3,344 |  |  | 2 | 3,344 |
| 25-29 | 8 | 44,572 |  |  | 8 | 44,572 |
| 30-34 | 4 | 10,200 | 1 | 8,308 | 5 | 18,508 |
| 35-39 | 9 | 60,395 |  |  | 9 | 60,395 |
| 40-44 | 7 | 26,442 |  |  | 7 | 26,442 |
| 45-49 | 26 | 123,656 | 5 | 58,517 | 31 | 182,173 |
| 50-54 | 61 | 416,459 | 1 | 6,318 | 62 | 422,777 |
| 55-59 | 87 | 570,039 | 3 | 17,082 | 90 | 587,121 |
| 60-64 | 157 | 1,363,380 | 7 | 24,034 | 164 | 1,387,414 |
| 65-69 | 325 | 2,366,807 | 12 | 83,860 | 337 | 2,450,667 |
| 70-74 | 587 | 4,392,800 | 12 | 60,026 | 599 | 4,452,826 |
| 75-79 | 1,004 | 6,903,566 | 7 | 31,557 | 1,011 | 6,935,123 |
| 80-84 | 1,176 | 7,052,966 | 4 | 48,487 | 1,180 | 7,101,453 |
| 85-89 | 918 | 4,323,582 | 1 | 3,339 | 919 | 4,326,921 |
| 90-94 | 392 | 1,618,056 |  |  | 392 | 1,618,056 |
| 95-99 | 93 | 391,321 |  |  | 93 | 391,321 |
| 100 | 5 | 14,519 |  |  | 5 | 14,519 |
| 101 |  |  |  |  |  |  |
| 102 | 1 | 864 |  |  | 1 | 864 |
| 103 | 1 | 968 |  |  | 1 | 968 |
| 104 |  |  |  |  |  |  |
| 105 \& Over | 1 | 2,150 |  |  | 1 | 2,150 |
| Total | 4,865 | \$29,689,057 | 54 | \$342,575 | 4,919 | \$30,031,632 |

## Survivor Benefit Fund

Beneficiaries as of June 30, 2007
Annual Amount, and Basic Benefit Actuarial Liabilities

| Group | Number | \% of Current Annual Benefit |  |  | Current <br> Annual <br> Benefits | Actuarial Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Base <br> Allowances | HB 204 and 284 | Post - <br> Retirement Increases |  |  |
| Benefits Being Paid From Survivor Benefit Fund |  |  |  |  |  |  |
| Males | 1,792 | 83.4\% | 0.0\% | 16.6\% | \$ 8,995,197 | \$ 106,417,248 |
| Females | 2,443 | 76.0\% | 0.0\% | 24.0\% | 16,650,027 | 153,479,947 |
| Total | 4,235 | 78.5\% | 0.0\% | 21.5\% | \$25,949,150 | \$ 259,897,195 |

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, 2007 Current Annual Total Benefits by Attained Age

$\left.$|  | Totals |  |
| :---: | ---: | ---: |
| Attained <br> Age | Number |  | | Annual |
| :---: |
| Benefits | \right\rvert\, | Under 20 |
| :---: |

## All Pensioners Receiving a Benefit Male and Female Demographic Breakdown June 30, 2007

| Attained Age | Number of |  | Total |
| :---: | :---: | :---: | :---: |
|  | Males | Females | Number |
| Under 20 | 31 | 33 | 64 |
| 20-24 | 7 | 9 | 16 |
| 25-29 | 4 | 5 | 9 |
| 30-34 | 8 | 8 | 16 |
| 35-39 | 24 | 30 | 54 |
| 40-44 | 74 | 88 | 162 |
| 45-49 | 230 | 274 | 504 |
| 50-54 | 587 | 761 | 1,348 |
| 55-59 | 998 | 1,615 | 2,613 |
| 60-64 | 1,701 | 5,291 | 6,992 |
| 65-69 | 2,707 | 8,332 | 11,039 |
| 70-74 | 2,966 | 8,587 | 11,553 |
| 75-79 | 2,827 | 8,198 | 11,025 |
| 80-84 | 2,225 | 7,143 | 9,368 |
| 85-89 | 1,282 | 4,707 | 5,989 |
| 90-94 | 383 | 1,886 | 2,269 |
| 95-99 | 68 | 397 | 465 |
| 100 | 4 | 20 | 24 |
| 101 |  | 8 | 8 |
| 102 |  | 2 | 2 |
| 103 | 1 | 2 | 3 |
| 104 |  | 2 | 2 |
| 105 \& Over | 2 | 2 | 4 |
| Total | 16,129 | 47,400 | 63,529 |

## SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

Total Active Member Data as of June 30, 2007
Tabulated by Attained Age and Years of Service

| $\begin{array}{\|c} \hline \text { Attained } \\ \text { Age } \\ \hline \end{array}$ | Years of Service to Valuation Date |  |  |  |  |  |  | Totals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 plus | No. |  | Valuation <br> Payroll |
| Under 20 | 706 |  |  |  |  |  |  | 706 | \$ | 3,902,083 |
| 20-24 | 4,554 | 115 |  |  |  |  |  | 4,669 |  | 41,094,430 |
| 25-29 | 4,511 | 1,075 | 59 |  |  |  |  | 5,645 |  | 86,177,849 |
| 30-34 | 4,210 | 1,903 | 446 | 26 |  |  |  | 6,585 |  | 119,494,350 |
| 35-39 | 6,094 | 3,695 | 1,102 | 398 | 38 |  |  | 11,327 |  | 212,629,002 |
| 40-44 | 7,127 | 6,170 | 2,522 | 1,051 | 622 | 128 |  | 17,620 |  | 350,107,353 |
| 45-49 | 6,427 | 7,286 | 4,749 | 2,265 | 1,279 | 955 | 95 | 23,056 |  | 507,481,494 |
| 50-54 | 4,322 | 5,193 | 4,537 | 3,456 | 2,231 | 1,170 | 464 | 21,373 |  | 519,212,274 |
| 55-59 | 3,046 | 3,033 | 2,561 | 3,016 | 2,920 | 1,502 | 516 | 16,594 |  | 415,678,405 |
| 60 | 509 | 547 | 393 | 470 | 553 | 383 | 146 | 3,001 |  | 74,412,201 |
| 61 | 318 | 326 | 204 | 280 | 353 | 273 | 99 | 1,853 |  | 46,073,212 |
| 62 | 277 | 273 | 220 | 236 | 289 | 255 | 110 | 1,660 |  | 40,433,428 |
| 63 | 243 | 297 | 200 | 187 | 243 | 208 | 122 | 1,500 |  | 35,304,061 |
| 64 | 256 | 281 | 185 | 194 | 248 | 222 | 131 | 1,517 |  | 35,904,098 |
| 65 | 206 | 189 | 119 | 133 | 173 | 150 | 116 | 1,086 |  | 24,077,865 |
| 66 | 186 | 154 | 95 | 87 | 123 | 128 | 102 | 875 |  | 18,595,016 |
| 67 | 154 | 137 | 71 | 72 | 92 | 93 | 101 | 720 |  | 14,760,964 |
| 68 | 144 | 102 | 61 | 63 | 79 | 84 | 88 | 621 |  | 12,404,179 |
| 69 | 147 | 100 | 45 | 61 | 69 | 62 | 92 | 576 |  | 10,949,275 |
| 70 \& Over | 420 | 435 | 245 | 181 | 196 | 199 | 353 | 2,029 |  | 34,608,672 |
| Totals | 43,857 | 31,311 | 17,814 | 12,176 | 9,508 | 5,812 | 2,535 | 123,013 | \$ | 2,603,300,211 |

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

Age: 47.5 years
Service: 9.4 years
Annual Pay: \$ 21,163

## SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO <br> Male Active Member Data as of June 30, 2007 <br> 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 <br> Payroll |
| Under 20 | 387 |  |  |  |  |  |  | 387 | \$ | 2,274,665 |
| 20-24 | 2,233 | 61 |  |  |  |  |  | 2,294 |  | 21,642,943 |
| 25-29 | 1,983 | 484 | 26 |  |  |  |  | 2,493 |  | 41,097,071 |
| 30-34 | 1,475 | 609 | 202 | 12 |  |  |  | 2,298 |  | 48,414,620 |
| 35-39 | 1,660 | 821 | 389 | 190 | 13 |  |  | 3,073 |  | 76,023,319 |
| 40-44 | 1,868 | 993 | 516 | 388 | 315 | 70 |  | 4,150 |  | 111,599,388 |
| 45-49 | 1,921 | 1,183 | 646 | 486 | 538 | 529 | 54 | 5,357 |  | 159,639,114 |
| 50-54 | 1,679 | 1,162 | 686 | 548 | 572 | 511 | 271 | 5,429 |  | 168,455,572 |
| 55-59 | 1,291 | 938 | 554 | 491 | 476 | 325 | 192 | 4,267 |  | 130,437,262 |
| 60 | 251 | 226 | 122 | 93 | 69 | 60 | 28 | 849 |  | 24,132,402 |
| 61 | 161 | 131 | 64 | 58 | 63 | 45 | 10 | 532 |  | 15,190,773 |
| 62 | 133 | 122 | 72 | 75 | 52 | 32 | 16 | 502 |  | 14,113,208 |
| 63 | 140 | 135 | 69 | 42 | 52 | 28 | 19 | 485 |  | 12,827,476 |
| 64 | 136 | 134 | 79 | 53 | 64 | 29 | 13 | 508 |  | 13,557,149 |
| 65 | 112 | 110 | 48 | 45 | 42 | 19 | 15 | 391 |  | 9,672,071 |
| 66 | 102 | 96 | 42 | 23 | 25 | 12 | 13 | 313 |  | 6,990,766 |
| 67 | 80 | 81 | 32 | 25 | 25 | 8 | 7 | 258 |  | 5,671,351 |
| 68 | 70 | 62 | 31 | 21 | 19 | 13 | 8 | 224 |  | 4,768,406 |
| 69 | 75 | 48 | 20 | 21 | 17 | 8 | 4 | 193 |  | 3,886,464 |
| 70 \& Over | 213 | 214 | 127 | 82 | 52 | 32 | 27 | 747 |  | 13,886,545 |
| Totals | 15,970 | 7,610 | 3,725 | 2,653 | 2,394 | 1,721 | 677 | 34,750 | \$ | 884,280,565 |

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

Age: 46.2 years
Service: 8.3 years
Annual Pay: \$25,447

## SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

Female Active Member Data as of June 30, 2007
Tabulated by Attained Age and Years of Service

| AttainedAge | Years of Service to Valuation Date |  |  |  |  |  |  | Totals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 plus | No. |  | Valuation <br> Payroll |
| Under 20 | 319 |  |  |  |  |  |  | 319 | \$ | 1,627,418 |
| 20-24 | 2,321 | 54 |  |  |  |  |  | 2,375 |  | 19,451,487 |
| 25-29 | 2,528 | 591 | 33 |  |  |  |  | 3,152 |  | 45,080,778 |
| 30-34 | 2,735 | 1,294 | 244 | 14 |  |  |  | 4,287 |  | 71,079,730 |
| 35-39 | 4,434 | 2,874 | 713 | 208 | 25 |  |  | 8,254 |  | 136,605,683 |
| 40-44 | 5,259 | 5,177 | 2,006 | 663 | 307 | 58 |  | 13,470 |  | 238,507,965 |
| 45-49 | 4,506 | 6,103 | 4,103 | 1,779 | 741 | 426 | 41 | 17,699 |  | 347,842,380 |
| 50-54 | 2,643 | 4,031 | 3,851 | 2,908 | 1,659 | 659 | 193 | 15,944 |  | 350,756,702 |
| 55-59 | 1,755 | 2,095 | 2,007 | 2,525 | 2,444 | 1,177 | 324 | 12,327 |  | 285,241,143 |
| 60 | 258 | 321 | 271 | 377 | 484 | 323 | 118 | 2,152 |  | 50,279,799 |
| 61 | 157 | 195 | 140 | 222 | 290 | 228 | 89 | 1,321 |  | 30,882,439 |
| 62 | 144 | 151 | 148 | 161 | 237 | 223 | 94 | 1,158 |  | 26,320,220 |
| 63 | 103 | 162 | 131 | 145 | 191 | 180 | 103 | 1,015 |  | 22,476,585 |
| 64 | 120 | 147 | 106 | 141 | 184 | 193 | 118 | 1,009 |  | 22,346,949 |
| 65 | 94 | 79 | 71 | 88 | 131 | 131 | 101 | 695 |  | 14,405,794 |
| 66 | 84 | 58 | 53 | 64 | 98 | 116 | 89 | 562 |  | 11,604,250 |
| 67 | 74 | 56 | 39 | 47 | 67 | 85 | 94 | 462 |  | 9,089,613 |
| 68 | 74 | 40 | 30 | 42 | 60 | 71 | 80 | 397 |  | 7,635,773 |
| 69 | 72 | 52 | 25 | 40 | 52 | 54 | 88 | 383 |  | 7,062,811 |
| 70 \& Over | 207 | 221 | 118 | 99 | 144 | 167 | 326 | 1,282 |  | 20,722,127 |
| Totals | 27,887 | 23,701 | 14,089 | 9,523 | 7,114 | 4,091 | 1,858 | 88,263 | \$ | 1,719,019,646 |

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

Age: 48.0 years
Service: 9.9 years
Annual Pay: \$19,476

## SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

Active Member as of June 30, 2007
By Annual Pay

| Annual Pay | Number of Active Members |  |  | Portion of Total Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Totals | Group | Cumulative |
| Less than \$1,000 | 215 | 305 | 520 | 0.4\% | 0.4\% |
| \$1,000-1,999 | 1,082 | 1,338 | 2,420 | 2.0\% | 2.4\% |
| 2,000-2,999 | 1,975 | 2,142 | 4,117 | 3.3\% | 5.7\% |
| 3,000-3,999 | 1,778 | 2,433 | 4,211 | 3.4\% | 9.1\% |
| 4,000-4,999 | 1,385 | 2,577 | 3,962 | 3.2\% | 12.3\% |
| 5,000-5,999 | 1,073 | 2,502 | 3,575 | 2.9\% | 15.2\% |
| 6,000-6,999 | 875 | 2,526 | 3,401 | 2.8\% | 18.0\% |
| 7,000-7,999 | 733 | 2,600 | 3,333 | 2.7\% | 20.7\% |
| 8,000-8,999 | 710 | 2,489 | 3,199 | 2.6\% | 23.3\% |
| 9,000-9,999 | 608 | 2,553 | 3,161 | 2.6\% | 25.9\% |
| 10,000-11,999 | 1,243 | 5,157 | 6,400 | 5.2\% | 31.1\% |
| 12,000-13,999 | 1,165 | 5,910 | 7,075 | 5.8\% | 36.9\% |
| 14,000-15,999 | 1,169 | 7,303 | 8,472 | 6.9\% | 43.8\% |
| 16,000-17,999 | 1,170 | 7,187 | 8,357 | 6.8\% | 50.6\% |
| 18,000-19,999 | 1,047 | 6,242 | 7,289 | 5.9\% | 56.5\% |
| 20,000-24,999 | 2,139 | 11,447 | 13,586 | 11.0\% | 67.5\% |
| 25,000-29,999 | 2,561 | 7,837 | 10,398 | 8.5\% | 76.0\% |
| 30,000-35,799 | 3,750 | 6,598 | 10,348 | 8.4\% | 84.4\% |
| 35,800 and over | 10,072 | 9,117 | 19,189 | 15.6\% | 100.0\% |
| Totals | 34,750 | 88,263 | 123,013 |  |  |

## 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 were adopted by the Board in May 2006.
5. 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.
6. 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)

|  | Gain (Loss) by Risk Area |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Economic |  | Non-Economic |  |  |  |  |  |  |  |  |
| Year Ending June 30 | Pay <br> Increases | Investments | Age \& Service Retirement | Disability | Death In Service | Withdrawal | New <br> Members | Retired Lives | Other * | \$ | \% of AAL |
| 1998 | \$50.5 | \$486.6 | \$20.1 | \$(0.2) | \$(0.0) | \$(20.0) | $\wedge$ | \$(1.3) | \$(75.9) | \$459.8 | 7.1\% |
| 1999 | 47.3 | 487.7 | 24.4 | 2.7 | (0.7) | (18.0) | $\wedge$ | 1.0 | (84.6) | 459.8 | 6.5 |
| 2000 | (22.8 | 465.6 | 27.4 | 0.5 | (0.4) | (5.7) | $\wedge$ | 14.4 | (136.2) | 342.8 | 4.6 |
| 2001 | 51.3 | (13.0) | 32.4 | 7.3 | (0.9) | 68.0 | $\wedge$ | (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) |
| 2006 | 76.4 | 44.7 | 37.9 | 1.2 | 0.2 | (52.9) | (36.7) | 15.8 | (145.4) | (58.8) | (0.5) |
| 2007 | 121.0 | 504.3 | 13.4 | 0.9 | (0.3) | (73.2) | (37.2) | (10.2) | (1.1) | 517.6 | 4.1 |

* Includes effect of changes in data, timing of financial transactions, etc.
$\wedge \quad$ 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 30,2007 was $\$ 10,640,426,463$. The value for the previous year was $\$ 9,541,787,220$.

## School Employees Retirement System of Ohio <br> Development of Gain (Loss) for Basic Benefits <br> From Investment Return <br> For the Year Ended June 30, 2007

\$ Millions

1. Actuarial value of assets as of June 30, 2006
2. Actuarial value of assets as of June 30, 2007
a. Actual
\$ 9,541.8
b. If $8.00 \%$ assumed investment return was achieved for all phased-in years recognized in the asset method

10,136.1
3. Gain (Loss): 2 a minus 2 b
$\$ 504.3$

Pay Increases During the 2006-2007 Valuation Year To Members Active at Beginning and End of Year

| Central Age Group Beginning of Year | Number | Pay Increases |  |
| :---: | :---: | :---: | :---: |
|  |  | Actual | Expected |
| Under 25 | 1,394 | -3.84\% | 18.79\% |
| 25 | 3,371 | 7.52 | 14.25 |
| 30 | 4,428 | 5.71 | 11.52 |
| 35 | 7,725 | 6.24 | 10.03 |
| 40 | 12,723 | 6.17 | 8.80 |
| 45 | 19,655 | 5.08 | 7.56 |
| 50 | 21,100 | 4.44 | 6.69 |
| 55 | 16,826 | 3.42 | 6.22 |
| 60 | 11,261 | 3.15 | 6.04 |
| 65 \& Over | 7,672 | 2.57 | 6.02 |
| Total | 106,155 | 4.47\% | 7.47\% |

Members Who Became Age \& Service Retirees During Valuation Year 2006-2007 (Retirement With Allowance Beginning Immediately)

| Attained Age | Years of Service to Valuation Date |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 plus | Total |
| Under 50 |  |  |  |  |  | 22 | 15 | 37 |
| 50 |  |  |  |  |  | 11 | 10 | 21 |
| 51 |  |  |  |  |  | 7 | 14 | 21 |
| 52 |  |  |  |  |  | 11 | 17 | 28 |
| 53 |  |  |  |  |  | 4 | 19 | 23 |
| 54 |  |  |  |  |  | 5 | 25 | 30 |
| 55 |  |  |  |  | 1 | 29 | 17 | 47 |
| 56 |  |  |  |  | 6 | 29 | 16 | 51 |
| 57 |  |  |  |  | 2 | 35 | 30 | 67 |
| 58 |  |  |  |  | 5 | 26 | 20 | 51 |
| 59 |  |  |  |  | 4 | 26 | 22 | 52 |
| 60 |  | 17 | 22 | 47 | 65 | 53 | 37 | 241 |
| 61 | 1 | 18 | 18 | 28 | 39 | 37 | 28 | 169 |
| 62 |  | 24 | 15 | 25 | 29 | 36 | 22 | 151 |
| 63 |  | 18 | 20 | 32 | 35 | 44 | 31 | 180 |
| 64 | 2 | 14 | 11 | 15 | 25 | 42 | 32 | 141 |
| 65 |  | 20 | 20 | 24 | 31 | 42 | 41 | 178 |
| 66 | 2 | 24 | 14 | 24 | 36 | 34 | 24 | 158 |
| 67 | 1 | 11 | 12 | 16 | 20 | 23 | 23 | 106 |
| 68 | 1 | 8 | 12 | 10 | 18 | 14 | 31 | 94 |
| 69 |  | 6 | 9 | 7 | 12 | 25 | 15 | 74 |
| 70 \& over | 1 | 48 | 35 | 31 | 54 | 59 | 85 | 313 |
| Totals | 8 | 208 | 188 | 259 | 382 | 614 | 574 | 2,233 |

Average Age: 63.9
Average Service: 23.2
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 2006-2007 Valuation Year With a Death-in-Service Allowance Payable

| Central <br> Age <br> Group | Number |
| :---: | :---: |
| Under 25 |  |
| 25 |  |
| 30 |  |
| 35 | 2 |
| 40 | 4 |
| 45 | 11 |
| 50 | 17 |
| 55 | 19 |
| 60 | 15 |
| 65 | 12 |
| $70 \&$ over | 93 |
| Total |  |

Average Age: 58.1
Average Service: 13.5

## Members Who Died in 2006-2007 Valuation Year and Received a Refund of Contributions

| Central <br> Age <br> Group | Number |
| :---: | :---: |
| Under 25 |  |
| 25 |  |
| 30 | 1 |
| 35 | 2 |
| 40 | 1 |
| 45 | 2 |
| 50 | 1 |
| 55 | 8 |
| 60 | 8 |
| 65 | 7 |
| $70 \&$ over | 7 |
| Total | 43 |

Average Age: 57.1
Average Service: 13.8

Members Who Became Disability Retirees During the 2006-2007 Valuation Year

| Central <br> Age <br> Group | Number |
| :---: | :---: |
| Under 25 |  |
| 25 |  |
| 30 |  |
| 35 | 9 |
| 40 | 14 |
| 45 | 39 |
| 50 | 82 |
| 55 | 24 |
| 60 | 13 |
| 65 | 3 |
| $70 \&$ over | 262 |
| Total |  |

Average Age: 54.1
Average Service: 15.8

# Members Receiving a Refund of Contributions or Becoming Inactive Without a Refund in the 2006-2007 Valuation Year (Non-vested Terminations) 

| Central <br> Age <br> Group | Number |
| :---: | :---: |
| Under 25 | 2,147 |
| 25 | 1,945 |
| 30 | 1,337 |
| 35 | 1,599 |
| 40 | 1,807 |
| 45 | 1,727 |
| 50 | 1,235 |
| 55 | 820 |
| 60 | 368 |
| 65 | 348 |
| $70 \&$ over | 250 |
| Total | 13,583 |

Average Age: 39.7
Average Service: 3.0

Members Who Became Inactive in the 2006-2007 Valuation Year with a Deferred Allowance (Vested Terminations)

| Central Age Group | Number |
| :---: | :---: |
| Under 25 | 4 |
| 25 | 28 |
| 30 | 57 |
| 35 | 84 |
| 40 | 120 |
| 45 | 195 |
| 50 | 184 |
| 55 | 155 |
| 60 | 34 |
| 65 | 19 |
| 70 \& over | 17 |
| Total | 897 |

Average Age: 48.5
Average Service: 9.7

## 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.

## 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.

