SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE YEAR ENDED JUNE 30, 1988

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE YEAR ENDED JUNE 30, 1988

Prepared By SERS Staff

Thomas R. Anderson,
Executive Director

THE SCHOOL EMPLOYEES RETIREMENT BOARD OF OHIO

Seated, left to right: Agnes F. O'Keefe, William A. Guy, Mary E. Kasunic. Standing, left to right: Anthony J. Celebrezze, Jr., Thomas R. Anderson, Lowell B. Davis, Orris E. Fields, Jr., McCullough Williams, III (State Auditor representative).

President: William A. Guy, Columbus, Ohio
Term expires June 30, 1992

Vice President: Agnes F. O'Keefe, Westerville, Ohio
Term expires June 30, 1992

Employee-Member: Lowell B. Davis, Euclid, Ohio
Term expires June 30, 1989

Employee-Member: Orris E. Fields, Jr., Wilmington, Ohio
Term expires June 30, 1991

Employee-Member: Mary E. Kasunic, Wickliffe, Ohio
Term expires June 30, 1989

ExOfficio Member: Anthony J. Celebrezze, Jr.
Attorney General

ExOfficio Member: Thomas E. Ferguson
Auditor of State

Thomas R. Anderson
Executive Director

John W. Frank
Controller

Directors

Robert E. Hartsook
Deputy Director
Member Services

F. Robert Coe
Management Information Services

Paul M. Kubinsky
Investments

Rita M. Volpi
Planning and Development

ORGANIZATIONAL CHART

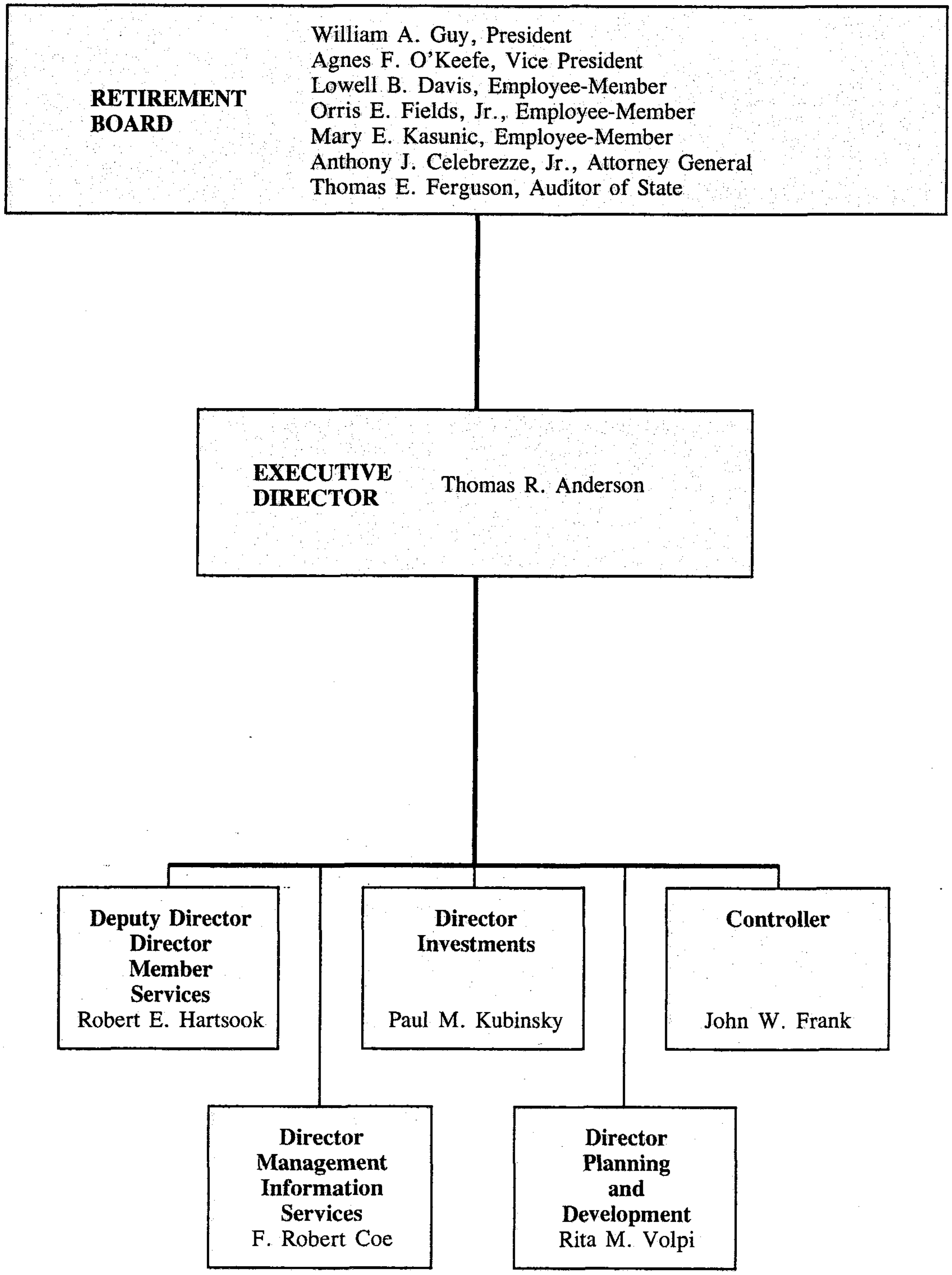


TABLE OF CONTENTS

	Pages
Introductory Section:	
Letter of Transmittal	6-7
Certificate of Achievement	8
Financial Section:	
Auditors' Report	10
Balance Sheets	11
Statements of Revenues, Expenses and Changes in Fund Balance	12
Statements of Changes in Financial Position	13
Notes to Financial Statements	14-19
Schedules:	
I Analysis of Funding Progress	20
II Revenues by Source and Expenses by Type	20
III Administrative Expenses	21
IV Investment Summary	22
V Fund Balance Accounts	23
Auditor of State's Letter	24
Actuarial Section:	
Actuaries' Letter	26
Statement of Actuaries	27-30
Statistical Section:	
Tables:	
I Asset Coverage of Accrued Liabilities	32
II Benefit Expenses by Type	33
III Number of Benefit Recipients by Type	33
IV Number of Participating Employers	33
V Retirement Averages	34
Investment Section:	
Investment Portfolio Distribution	36
Investment Report	37
Schedules	38
Exhibits	39-43
Investment Policy	44-47
Plan Summary	48-51

SCHOOL EMPLOYEES RETIREMENT SYSTEM

45 North Fourth Street • Columbus, Ohio 43215 • Telephone (614) 221-5853

January 17, 1989

President and Members of the Retirement Board:

Dear President and Members:

We are pleased to submit to you the comprehensive annual financial report of the School Employees Retirement System of Ohio for the fiscal year ended June 30, 1988.

The report is divided into six sections, and contains statements of our financial condition, results of operation of our benefit programs, various schedules of significant information related to our operations, and the opinion of our certified public accountants, Touche Ross & Co. There is an Actuarial Section which includes the opinion of our consulting actuaries, Gabriel, Roeder, Smith & Company, and an Investment Section which contains the investment report and schedules of portfolio activity for the past year. The report also includes a Plan Summary Section, which describes the organization and administration of the Retirement System, and provides a concise explanation of the various benefit plans which we provide to our members.

Accounting System and Reports

These financial statements were prepared in accordance with generally accepted accounting principles of governmental accounting and reporting as pronounced by the American Institute of Certified Public Accountants and the Governmental Accounting Standards Board.

The principles promulgated by Statement No. 6 of the National Council On Governmental Accounting are used in our accounting and subsequent reporting of financial activities. The accrual basis of accounting is used to record all financial transactions. Gains and losses on sales and exchanges of investments are recognized on the transaction date. Investments in fixed-income securities are reported at amortized cost; discounts and premiums are amortized using the interest method. All other assets are reported at cost, except for real estate investments, which are reported at cost less accumulated depreciation. Our internal accounting controls are designed to ensure the security of member and employer contributions, to assure responsible safeguarding of the assets, and to provide a degree of reliability to all of our financial records.

Review of Operations

During the fiscal year 1988, House Bill 290, proposed by SERS, was passed by the Ohio General Assembly and signed into law by Governor Richard F. Celeste. The bill contains benefit improvements for retirees and future retirees, as well as additional funding for post-retirement health care benefits. The increased revenue generated by an employer-paid surcharge based on low member salaries will put health care funding back on a level cost funding basis.

A new claims form forwarding process between Medicare and our main carrier Aetna was implemented. This process reduced the amount of paperwork filed by retirees. Retirees also received a comprehensive handbook of SERS benefits, the first ever produced by the System.

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the School Employees Retirement System of Ohio for its comprehensive annual financial report for the fiscal year ended June 30, 1987.

In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such reports must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement Program requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

Financial Highlights

Revenues:

Revenues from employee and employer contributions were $89.7 million and $145.8 million, respectively, while income from investments totaled $161.7 million. Contribution rates for both employees and employers remained unchanged from the prior year.

Expenses:

Expenses are incurred primarily for the purpose for which SERS was created; namely, the payment of benefits. Included in the total expenses for fiscal 1988 were benefit payments, refunds of contributions due to member termination or death, transfers of contributions to other Ohio Systems to provide benefits for those members who hold membership in more than one

Financial Highlights (Continued)

system, and administrative expenses. Expenses for fiscal 1988 totaled $222.8 million, an increase of 5.5% over 1987 expenses. Increases in the number of benefit recipients, the average benefit paid, and health care expense combined to increase benefit expense by $11.4 million, accounting for nearly all of the increase in total System expenses for the fiscal year.

Funding and Reserves:

Funds are derived from the excess of revenues over expenses, and are accumulated by SERS in order to meet current and future benefit obligations to retirees and beneficiaries. The higher the level of funding, the larger the accumulation of assets and the greater the investment income potential.

Net income for the fiscal year 1988 resulted in an increase in fund balance of $176.7 million. This increase is $10.1 million less than the total increase in fund balance for the fiscal year 1987.

The actuarial valuation for funding purposes, dated June 30, 1988, reflects an unfunded accrued liability for basic benefits of $1,103 million. This liability represents the difference between the computed actuarial accrued liability for basic benefits to be paid members and retirants ($3,307 million) and total of valuation assets ($2,204 million). The employer contribution rate of 14% is allocated by Board policy between basic benefits and health care. In addition to the 14%, effective with fiscal year 1990, employers will pay a surcharge for any member whose salary is less than a minium pay. The surcharge, plus the employer contributions from the basic 14% employer rate, will provide funds sufficient to achieve level cost financing of both the basic benefit and health care programs.

Additional information regarding funding is provided within the Actuarial Section (pages 26 to 30) of this report.

Investments

The School Employees Retirement System invests the accumulated funds in order to maximize both current income yield and long-term appreciation. For the fiscal year ended June 30, 1988, investments provided 40.5% of the System's total revenues while employee and employer contributions provided 22.4% and 36.5%, respectively; and other sources accounted for the remaining 0.6%.

At June 30, 1988, our investment portfolio was structured as follows: 45.2% in debt securities; 29.5% in equity securities; 13.1% in short-term investments; and 12.2% in real estate.

The primary objective of our investment policy is to assure that the System meets its responsibilities for providing retirement and other benefits. The portfolio is diversified to provide adequate cash flow, and the highest possible total return on System assets with the least possible exposure to risk. Details of portfolio composition, rates of return, analysis of significant economic conditions, and additional information concerning our investment policy and operations are provided on pages 36 to 47 of this report.

Future Prospects

The additional revenues to be received for the funding of our post-retirement health care benefit will ease substantially the negative financial impact on System assets those benefits have caused in the past. In order for the System to maintain the funding of all of its benefits on an actuarially sound basis, however, we will continue the diligent search for effective health care cost containment measures. The providing of affordable health care is certainly one of the greatest challenges facing our nation today and will continue to pose serious questions well into the next century; the questions posed by providing post-retirement health care are even more challenging. In spite of the magnitude of the problems, SERS will maintain its commitment to the ongoing effort of helping to find acceptable answers.

Acknowledgements

The preparation of this report is the result of the combined effort of the System's staff under the direction of the Retirement Board. It is intended to provide complete and reliable information as a basis for making management decisions, to disclose compliance with legal provisions, and as a means of determining responsible stewardship for the assets contributed by the members and their employers.

This report is being mailed to all employer members of SERS and other interested parties.

Respectfully submitted,

Thomas R. Anderson

Thomas R. Anderson
Executive Director

John W. Frank

John W. Frank
Controller

Certificate of Achievement for Excellence in Financial Reporting

Presented to

School Employees Retirement System of Ohio

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 1987

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.

GOVERNMENT FINANCE OFFICERS ASSOCIATION OF THE UNITED STATES AND CANADA CORPORATION SEAL CHICAGO

President

Executive Director

Financial Section

Auditors' Report

Balance Sheets

Statements of Revenues, Expenses And Changes in Fund Balance

Statements Of Changes in Financial Position

Notes to Financial Statements

Schedules:

- Analysis of Funding Progress
- Revenues by Source and Expenses by Type
- Administrative Expenses
- Investment Summary
- Fund Balance Accounts

Auditor of State's Letter

AUDITORS' REPORT

Touche Ross & Co.
250 East Broad Street
Columbus, OH 43215-9948
Telephone: 614 224-1110

Touche Ross

December 1, 1988

Members of the Retirement Board
School Employees Retirement System of Ohio
Columbus, Ohio

We have examined the balance sheet of the School Employees Retirement System of Ohio as of June 30, 1988, and the related statements of revenues, expenses, and changes in fund balances and changes in financial position for the year then ended, and Schedules I through V listed in the accompanying table of contents. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of the School Employees Retirement System of Ohio as of June 30, 1988, and the results of its operations, changes in its fund balances and changes in its financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Further, it is our opinion that Schedules I through V listed in the accompanying table of contents, present fairly the information set forth therein.

The financial statements of the School Employees Retirement System of Ohio for the year ended June 30, 1987 were examined by other auditors whose report dated December 31, 1987, expressed an unqualified opinion on those statements, comparative financial information from which is presented herein. In our opinion, such comparative financial information has been properly extracted from the prior year's financial statements.

Touche Ross & Co.

Certified Public Accountants

Touche Ross International

BALANCE SHEETS

June 30, 1988 and 1987

	1988	1987
Assets:		
Cash (note 5)	$ 3,034,132	$ 1,363,890
Receivables:		
Contributions:		
Employers	72,068,718	67,797,230
Employees	7,044,244	6,561,885
State of Ohio subsidies	1,198,906	1,320,740
Accrued investment income	18,761,814	18,828,528
Investment sale proceeds	2,755,396	8,402,104
Total receivables	101,829,078	102,910,487
Investments, at cost (market $2,403,694,997 and $2,372,149,374, respectively) (notes 5, 6 and 8)	2,184,420,660	1,998,779,012
Property and equipment, at cost (note 7)	8,631,903	8,437,301
Less accumulated depreciation	2,540,091	2,042,793
Net property and equipment	6,091,812	6,394,508
Other assets (note 9)	1,365,278	914,484
Total assets	2,296,740,960	2,110,362,381
Liabilities:		
Accounts payable and accrued expenses	828,386	548,061
Investment commitments payable	23,367,334	13,942,562
Health care benefits incurred and unpaid	14,610,320	14,411,475
Notes payable (note 8)	17,827,990	18,134,508
Other liabilities (note 9)	455,866	342,309
Total liabilities	57,089,896	47,378,915
Net assets available for benefits	**$ 2,239,651,064**	**$ 2,062,983,466**
Fund balance (note 3):		
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 2,172,112,177	$ 2,004,405,988
Current employees:		
Accumulated employee contributions, including allocated investment income	577,028,334	524,262,202
Employer financed portion	1,258,812,538	1,122,990,474
Total pension benefit obligation	4,007,953,049	3,651,658,664
Unfunded pension benefit obligation payable	(1,768,301,985)	(1,588,675,198)
Total fund balance	**$ 2,239,651,064**	**$ 2,062,983,466**

See accompanying notes to financial statements.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE

Years ended June 30, 1988 and 1987

	1988	1987
Revenues:		
Contributions:		
Employers (note 4)	$ 145,784,980	$ 135,032,693
Employees	89,667,853	84,848,170
State of Ohio subsidies	1,197,528	1,320,740
Transfer from other Ohio systems	1,083,365	1,201,085
	237,733,726	222,402,688
Investment income:		
Interest and dividends	141,105,992	130,009,733
Real estate income, net (notes 6 and 8)	12,801,852	13,735,396
Net realized gain on sale of investments	7,816,188	33,263,851
Net loss on options traded	—	(1,515,780)
	161,724,032	175,493,200
Total revenues	399,457,758	397,895,888
Expenses:		
Benefits:		
Retirement	129,330,510	118,726,020
Disability	14,138,302	12,780,695
Survivor	9,479,476	8,958,365
Health care	50,568,576	51,728,280
Death	661,375	594,491
	204,178,239	192,787,851
Refund of employee contributions	9,791,762	10,267,756
Administrative expenses	6,689,009	6,599,526
Transfer to other Ohio systems	2,131,150	1,498,114
Total expenses	222,790,160	211,153,247
Net income	176,667,598	186,742,641
Fund balance, beginning of year	2,062,983,466	1,876,240,825
Fund balance, end of year	**$ 2,239,651,064**	**$ 2,062,983,466**

See accompanying notes to financial statements.

STATEMENTS OF CHANGES IN FINANCIAL POSITION

Years ended June 30, 1988 and 1987

	1988	1987
Cash flows from operating activities:		
Contributions received	$ 233,101,713	$ 222,418,766
Investment income, net of investment expenses	155,807,524	139,498,998
Benefits paid	(203,979,394)	(187,965,289)
Refunds of employee contributions	(9,791,762)	(10,267,756)
Administrative expenses paid	(6,551,368)	(6,230,305)
Transfer to other Ohio systems	(2,131,150)	(1,498,114)
Net cash provided by operating activities	166,455,563	155,956,300
Cash flows from investing activities:		
Proceeds from investments sold	3,845,707,977	3,792,566,855
Purchase of investments	(4,009,969,204)	(3,946,392,779)
Additions to property and equipment	(217,576)	(451,668)
Net cash used in investing activities	(164,478,803)	(154,277,592)
Cash flows from financing activities:		
Repayment of notes payable	(306,518)	(314,818)
Cash used by financing activities	(306,518)	(314,818)
Net increase in cash	1,670,242	1,363,890
Cash at beginning of year	1,363,890	—
Cash at end of year	**$ 3,034,132**	**$ 1,363,890**
Reconciliation of net income to net cash provided by operating activities:		
Net income	$ 176,667,598	$ 186,742,641
Adjustments to reconcile net income to net cash provided by operating activities:		
Decrease (increase) in contributions receivable	(4,632,013)	16,078
Net realized gain on sale of investments	(7,816,188)	(33,263,851)
Decrease (increase) in accrued investment income	66,714	(2,305,542)
Depreciation and amortization (investment), net	1,507,247	83,487
Depreciation (non-investment)	520,272	489,615
Increase in other assets	(450,794)	(358,220)
Increase in accounts payable and accrued expenses	280,325	74,931
Increase in health care benefits incurred and unpaid	198,845	4,822,562
Increase (decrease) in other liabilities	113,557	(345,401)
Total adjustments	(10,212,035)	(30,786,341)
Net cash provided by operating activities	**$ 166,455,563**	**$ 155,956,300**

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS
June 30, 1988 and 1987

(1) Description of the System

(A) Organization — The School Employees Retirement System of Ohio (SERS) is a cost-sharing multiple-employer public employee retirement system established by the Ohio General Assembly in 1937 to provide retirement benefits to employees of Ohio public schools who are not required to possess a certificate in order to perform their duties. Responsibility for the organization and administration of SERS is vested in the Retirement Board. SERS is not considered part of the State of Ohio financial reporting entity.

Employer and employee membership data as of June 30 follows:

Employer Members	**1988**	**1987**
Local	376	376
City	192	192
County	84	86
Village	49	49
Vocational	49	49
Technical	13	13
College	2	2
Other	3	2
	768	769

Employee Members		
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	51,327	50,082
Current employees		
Vested	53,128	52,884
Nonvested	37,290	36,650
Total	90,418	89,534

(B) Benefits — Members are eligible for retirement benefits based upon age and service credit as follows: age 60 and earning 5 years of service credit; between ages 55 and 60 and earning 25 years of service credit; or earning 30 years of service credit at any age. The benefit is equal to 2% of the member's final average salary, or a minimum of $86, multiplied by the number of years of credited service.

In addition to retirement benefits, SERS also provides for disability benefits, survivor benefits, death benefits and health care benefits.

Members are eligible for disability benefits after completion of 5 years of service. Qualified dependents of a deceased member are eligible for monthly survivor benefits. Death benefits of $500 are payable upon the death of a retirant to a designated beneficiary. Prior to July 1, 1986, all members receiving a benefit from SERS were eligible to receive health care benefits.

Members who retire effective July 1, 1986 or later must have at least 10 or more years of service credit to qualify for the health care benefits.

Members with credited service in the State Teachers Retirement System (STRS) or Public Employees Retirement System (PERS) are eligible to receive transferred credited service and funds from either or both of those systems. Any service which is not concurrent with service within SERS will be included in the determination of retirement benefits. Similarly, a member with credited service and funds in SERS may transfer such service to STRS or PERS upon retirement.

(C) Recent Legislation — On June 9, 1988, H.B.290 was signed into Ohio law. The law amended both the benefits provided to SERS members (basic retirement and health care) and the contributions required to fund the benefits provided. On July 8, 1988, the SERS Retirement Board adopted several resolutions required to implement the provisions of H.B. 290. The amendments and resolutions which follow were taken into consideration by the actuary in preparing the June 30, 1988 actuarial valuation.

Effective October 1, 1988: 1) the retirement formula will be increased from 2% to 2.1% of final average salary; 2) the reimbursement to retirees eligible for Medicare Part B coverage will be fixed at the rate of $24.80 per month; and 3) there will be an increase in benefits of 2% for all retirants with benefit effective dates prior to February 1, 1983 and an increase of 5% for all retirants with effective dates of retirement of February 1, 1983 through September 30, 1988.

Effective July 1, 1989: 1) a surcharge on employers will be collected for employees earning less than an actuarially-determined minimum, pro-rated according to service credit earned (For the fiscal year 1989 the minimum has been established as $7,710.); 2) the contribution rate for employees will be increased from 8.75% to 9.0% of earnings which are subject to contribution; 3) members retiring with more than 10 but less than 25 years of service credit will be required to pay from 25% to 75% of the health insurance premium, phased in over a period of five years; and 4) the SERS portion of spouse and dependent health insurance premiums will be reduced from 50% to 30%, over a five-year period.

NOTES TO FINANCIAL STATEMENTS (Continued)

(2) Summary of Significant Accounting Policies

(A) Basis of Accounting — SERS' financial statements are prepared using the accrual basis of accounting. The following are the significant accounting policies followed by SERS:

(B) Investments — Income on all investments is recognized on the accrual basis. Gains and losses on sales and exchanges of investments are recognized on the transaction date.

Investments in fixed-income securities and mortgage loans are reported at amortized cost with discounts or premiums amortized using the interest method.

Investments in common and preferred stocks are carried at cost. Gains and losses on stock sales are recognized on the basis of the average cost of the stocks sold.

Investments in short-term obligations, principally certificates of deposit, commercial paper, U.S. Treasury bills and bank repurchase agreements are carried at cost, which approximates market value.

Investments in real estate are carried at cost. Depreciation on buildings is provided using the straight-line method over the estimated useful lives of the property (40 to 45 years).

Investments in commingled real estate funds are carried at cost.

Investments in capital development funds — limited partnerships are accounted for at the pro-rata share of underlying equity.

Gain or loss on options traded is earned on premiums received from selling covered call stock options. Premiums received are earned ratably over the term of the option or until the option is exercised, closed or expired. Option expense is recognized when the option is closed.

(C) Property and Equipment (Non-Investment Assets) — Property and equipment is stated at cost. Depreciation has been provided using the straight-line method over the following useful lives:

Description	Estimated Lives (years)
Automobiles	3
Equipment and furniture	3-10
Building	40

(D) Federal Income Tax Status — During the years ended June 30, 1988 and 1987 SERS qualified under Section 501(a) of the Internal Revenue Code and was exempt from Federal income taxes.

(E) Health Care Benefits Incurred and Unpaid — Amounts accrued for health care benefits payable are based upon estimates furnished by the claims administrator. Such estimates have been developed from prior claims experience.

(F) Reclassification — In 1988 SERS adopted a revised format using cash flows for the Statements of Changes in Financial Position. Accordingly, the 1987 amounts have been reclassified to conform to this format.

(3) Funding Status and Progress

The amount shown below as the "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess SERS' funding status on a going-concern basis, assess progress being made in accumulating sufficient assets to pay benefits when due, and allow for comparisons among public employee retirement plans. The measure is independent of the actuarial funding method used to determine contributions to SERS.

The pension benefit obligation was determined as part of an actuarial valuation of the plan as of June 30, 1988 and 1987. The following significant assumptions were used in the actuarial valuations as of June 30, 1988 and 1987:

Actuarial Assumption	
Rate of return on investments	7.5% compounded annually, with a 2% additional rate of return annually July 1, 1988 through June 30, 1991.
Projected salary increases	4.5% compounded annually, attributable to inflation, additional increases ranging from 0% to 3% per year attributable to seniority and merit.
Post-retirement mortality	1971 Group Annuity Table projected to 1984 for men and women, set back 1 year for women.
Rates of withdrawal from active service for reasons other than death, rates of disability and expected retirement ages	Developed on basis of actual plan experience.
Health care premiums	4.5% annual increase with 25% of eligible female retirants and 60% of eligible male retirants electing the joint survivor form of payment and 25% of eligible female retirants and 50% of eligible male retirants electing to cover spouse for health care.
Medicare	All recipients are eligible for Medicare on attainment of age 65 or immediately if retired for disability.

NOTES TO FINANCIAL STATEMENTS (Continued)

At June 30, 1988 the unfunded pension benefit obligation was $1,768,301,985 as follows:

	Basic Retirement Benefits	Health Care Benefits	Total
Pension benefit obligation:			
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 1,557,793,737	$ 614,318,440	$ 2,172,112,177
Current employees:			
Accumulated employee contributions including allocated investment income	577,028,334	—	577,028,334
Employer financed — vested	831,358,486	362,419,947	1,193,778,433
Employer financed — non-vested	50,906,458	14,127,647	65,034,105
Total pension benefit obligation	3,017,087,015	990,866,034	4,007,953,049
Net assets available for benefits, at cost (market $2,458,925,401)	2,106,523,909	133,127,155	2,239,651,064
Unfunded pension benefit obligation	$ 910,563,106	$ 857,738,879	$ 1,768,301,985

At June 30, 1987 the unfunded pension benefit obligation was $1,588,675,198 as follows:

	Basic Retirement Benefits	Health Care Benefits	Total
Pension benefit obligation:			
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 1,385,349,513	$ 619,056,475	$ 2,004,405,988
Current employees:			
Accumulated employee contributions including allocated investment income	524,262,202	—	524,262,202
Employer financed — vested	720,253,203	368,256,032	1,088,509,235
Employer financed — non-vested	16,093,325	18,387,914	34,481,239
Total pension benefit obligation	2,645,958,243	1,005,700,421	3,651,658,664
Net assets available for benefits, at cost (market $2,436,353,828)	1,930,344,027	132,639,439	2,062,983,466
Unfunded pension benefit obligation	$ 715,614,216	$ 873,060,982	$ 1,588,675,198

During the year ended June 30, 1988, the plan experienced a net change in the total pension benefit obligation of $356,294,385 ($371,128,772 for basic retirement benefits and [$14,834,387] for health care benefits). Of that change, [$79,507,360] was attributable to plan amendments ($119,766,547 for basic retirement benefits and [$199,273,907] for health care benefits). The plan amendments are described in note 1 (C).

NOTES TO FINANCIAL STATEMENTS (Continued)

(4) Contributions Required and Contributions Made

The Ohio Revised Code requires contributions by active members and their employers. Contribution rates are established by the Retirement Board within the allowable rates established by the Ohio Revised Code. Active members and their employers are required to contribute 8.75% and 14%, respectively, of active member payroll. The current employer contribution rate is allocated to basic retirement benefits and health care by the Retirement Board. For fiscal year 1988 the allocation of the employer contribution rate to basic retirement benefits has been established as the rate necessary to cover normal cost, plus an amortization of the unfunded actuarial accrued liabilities over a 40-year period. Based on this decision, the current employer contribution rate (14%) is allocated 9.58% to basic benefits and the remaining 4.42% is allocated to health care benefits. The contribution rate allocated to health care, plus the additional rate of contribution provided by the health care surcharge in the fiscal year beginning July 1, 1989, is sufficient to cover normal cost and provide level cost financing of the unfunded actuarial accrued liabilities. The adequacy of employer contribution rates is determined annually using the entry age normal cost method.

Significant actuarial assumptions used to determine the adequacy of contribution rates were the same as those used to compute the standardized measure of the pension benefit obligation.

Employer and employee contributions required and made represented 14% and 8.75%, respectively, of active member payroll and amounted to $140,928,000 and $88,080,000, respectively in 1988. The employer contribution consisted of $80,006,057 for normal cost and $60,921,943 for amortization of the unfunded actuarial accrued liability.

Contributions may be refunded, without interest, to a member who withdraws from SERS or to the member's beneficiary following the member's death.

(5) Cash Deposits and Investments

SERS' cash deposits at year-end were entirely covered by Federal depository insurance or by collateral held in the name of SERS' custodian, the Treasurer, State of Ohio, as required by statute. SERS is authorized to invest in bonds, notes, certificates of indebtedness, mortgage notes, real estate, stocks, shares, debentures, or other obligations or securities as set forth in the Ohio Revised Code. SERS' investments are categorized to give an indication of the level of risk assumed by SERS at year-end. Category 1 includes investments that are insured or registered or for which the securities are held by SERS or Treasurer, State of Ohio in SERS' name. Category 2 includes uninsured and unregistered investments for which the securities are held by the Treasurer, State of Ohio in SERS' name. Category 3 includes uninsured and unregistered investments for which the securities are held by the Treasurer, State of Ohio but not in SERS' name.

All investments of SERS meet the criteria of Category 1, except for the investments in first mortgage loans, real estate, commingled real estate funds and capital development funds — limited partnerships which by their nature are not required to be categorized.

Market values of securities are based primarily on quotations from national security exchanges. Market values of real estate are based upon appraisals. Market values of investments in the commingled real estate and capital development funds are based on information provided by the fund managers.

A summary of investments as of each June 30 follows:

	1988		1987	
	Carrying Value	Market Value	Carrying Value	Market Value
Corporate and government bonds and obligations	$ 450,780,270	$ 446,520,724	$ 484,362,180	$ 484,498,261
First mortgage loans and mortgage-backed securities	537,329,514	547,207,126	387,352,501	400,277,461
Common and preferred stocks	644,165,584	831,230,626	642,075,170	965,655,385
Short-term investments	285,922,781	286,771,027	241,794,481	242,669,718
Real estate, land and buildings	146,824,694	157,150,000	132,141,792	154,494,981
Commingled real estate funds	97,561,356	112,979,033	91,919,508	104,773,967
Capital development funds — limited partnerships	21,836,461	21,836,461	19,133,380	19,779,601
Total investments	**$ 2,184,420,660**	**$ 2,403,694,997**	**$ 1,998,779,012**	**$ 2,372,149,374**

NOTES TO FINANCIAL STATEMENTS (Continued)

(6) Real Estate and Leases

SERS' investment in real estate as of June 30 consists of:

	1988	1987
Land	$ 23,254,374	$ 22,796,756
Buildings	139,001,491	121,516,931
	162,255,865	144,313,687
Less accumulated depreciation	15,431,171	12,171,895
	$ 146,824,694	$ 132,141,792

The following is a summary of minimum future lease revenues on noncancellable operating leases related to SERS' investment in real estate as of June 30, 1988:

Year ending June 30,	
1989	$ 18,966,852
1990	10,999,646
1991	8,853,633
1992	7,255,745
1993	6,967,732
Future lease revenues	51,029,826
Total minimum future lease revenues	$ 104,073,434

Depreciation expense on the above real estate aggregated $3,721,714 and $2,871,392 in 1988 and 1987, respectively and is included in net real estate income.

(7) Property and Equipment (Non-Investment Assets)

A summary of property and equipment at June 30 follows:

	1988	1987
Land	$ 1,178,055	$ 1,178,055
Building and improvements	3,920,556	3,902,816
Furniture and equipment	3,533,292	3,356,430
	8,631,903	8,437,301
Less accumulated depreciation	2,540,091	2,042,793
	$ 6,091,812	$ 6,394,508

(8) Notes Payable

Notes payable at June 30, consists of the following:

	1988	1987
10.75% mortgage note payable, interest due quarterly with principal due September 1, 1990	$ 6,500,000	$ 6,500,000
10.25% mortgage note payable, due in monthly installments of $35,418, including interest, through December 1, 1993, with final payment of $3,605,767 due December 1, 1993	3,832,771	3,865,615
10.25% mortgage note payable, due in monthly installments of $24,195, including interest, through May 1, 1995 with final payment of $2,505,965 due May 1, 1995	2,675,821	2,688,160
10.5% mortgage note payable, due in monthly installments of $12,353, including interest, through May 15, 1996, with final payment of $1,130,500 due May 15, 1996	1,287,766	1,300,067
10% unsecured notes payable, interest due quarterly with principal due May 31, 1991, net of discount of $215,505 in 1988 and $374,137 in 1987	2,947,022	2,788,390
6.5% unsecured note payable, due in monthly installments of $35,758, including interest, through December 17, 1989	584,610	992,276
	$ 17,827,990	$ 18,134,508

The mortgage notes payable are collateralized by investments in real estate properties with a net book value of $19,921,000 at June 30, 1988. Aggregate maturities of notes payable for the five years ending June 30, 1993 are as follows: 1989, $465,016; 1990, $252,581; 1991, $9,525,619; 1992, $87,089; 1993, $96,498 and $7,401,187 thereafter. Subsequent to June 30, 1988 SERS prepaid approximately $13,557,000 of the notes payable. Total interest expense on the above notes aggregated $2,038,751 and $1,165,805 in 1988 and 1987, respectively and is included in net real estate income and administrative expenses as appropriate.

NOTES TO FINANCIAL STATEMENTS (Continued)

(9) Deferred Compensation

Employees of SERS may elect to participate in the Ohio Public Employees Deferred Compensation Program (Program), created in accordance with Internal Revenue Service Code Section 457. Under the Program, employees may elect to defer a portion of their pay until a later date, usually after retirement. The deferred pay and any income earned thereon is not subject to income taxes until actually received by the employee.

As of June 30, 1988, market value of investments in the Program totaled $455,866. Under the terms of the Program agreement, these monies are subject to the claims of SERS' general creditors. Accordingly, this amount is reflected as an asset along with a corresponding liability to the employees participating in the Program. Participating employees are general creditors of SERS with no preferential claim to the deferred funds. Investments in the Program are held by the Program's agent in SERS' name.

(10) Defined Benefit Pension Plan

Substantially all SERS full-time employees participate in the Public Employees Retirement System of Ohio (PERS), a cost-sharing multiple-employer public employee retirement system. The payroll for employees covered by PERS for the year ended June 30, 1988 was $2,907,771; SERS total payroll was $2,991,209.

All SERS full-time employees are eligible to participate in PERS. Employees are eligible for retirement benefits at age 60 with 5 or more years of service credit or at any age with 30 or more years of service. The benefit is based on 2.1% of final average salary multiplied by the years of service credit. Employees retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit amounts. PERS also provides disability and survivor benefits. Benefits are established by State statute.

SERS and covered employees are required by State statute to contribute 13.95% and 8.5%, respectively, of employee payroll to PERS. The rates are determined actuarily. SERS and employee contributions for the year ended June 30, 1988 were $405,634 and $247,161, respectively; these contributions represented 13.95% and 8.5% of covered employee payroll, respectively.

The "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess PERS' funding status on a going-concern basis, assess progress being made in accumulating sufficient assets to pay benefits when due, and allow for comparisons among public employee retirement plans. The measure is independent of the actuarial funding method used to determine contributions to PERS.

PERS does not make separate measurements of assets and pension benefit obligation for individual employers. The pension benefit obligation as of December 31,1986, the date of the most recent actuarial valuation, for PERS as a whole was $13.284 billion. PERS' net assets available for benefits on that date were $10.841 billion, leaving an unfunded pension benefit obligation of $2.443 billion. PERS does not hold any securities in the form of notes, bonds or other instruments of any of the entities contributing to the system. SERS' contribution represented less than 1 percent of total contributions required of all participating entities.

PERS' Comprehensive Annual Financial Report for the year ended December 31,1987 contains historical trend information for one year only.

(11) Contingent Liabilities

SERS is a party in various litigation. While the final outcome cannot be determined at this time, management is of the opinion that the liability, if any, for these legal actions will not have a material adverse effect on SERS' financial position.

(12) Historical Trend Information

Historical trend information designed to provide information about SERS' progress made in accumulating sufficient assets to pay benefits when due is presented immediately following the notes to the financial statements.

ANALYSIS OF FUNDING PROGRESS

Schedule I

Basic Retirement Benefits
($ Amounts in Millions)

Fiscal Year	(1) Net Assets Available for Benefits	(2) Pension Benefit Obligation	(3) Percentage Funded (1) divided by (2)	(4) Unfunded Pension Benefit Obligation (2) minus (1)	(5) Valuation Payroll	(6) Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4) divided by (5)
1985	$ 1,556	$ 2,257	68.9%	$ 701	$ 804	87.2%
1986	1,747	2,511	69.6	764	869	87.9
1987	1,930	2,646	72.9	716	931	76.9
1988*	2,107	3,017	69.9	910	982	92.6

Health Care Benefits
($ Amounts in Millions)

Fiscal Year	(1)	(2)	(3)	(4)	(5)	(6)
1985	$ 120	$ 656	18.3%	$ 536	$ 804	66.7%
1986	129	830	15.5	701	869	80.7
1987	133	1,006	13.2	873	931	93.8
1988*	133	991	13.4	858	982	87.4

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation (both basic retirement and health care benefits), and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of SERS' funding status on a going-concern basis. Analysis of this percentage over time indicates whether SERS is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger SERS is. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of SERS' progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger SERS is.

The actuarial assumptions for investment return, post-retirement mortality, and participation in health care premiums are revised periodically based on SERS' experience.

* In fiscal 1988, plan benefit provisions were amended. The amendments had the effect of increasing the pension benefit obligation for basic benefits by $119.8 million, and decreasing the pension benefit obligation for health care by $199.3 million.

Schedule II

Revenues By Source

Fiscal Year	Member Contributions	Employer Contributions	Investment Income	Other Revenues	Total
1983	$ 57,302,477	$ 86,862,611	$107,416,567	$3,489,140	$255,070,795
1984	67,503,890	106,886,556	145,215,463	2,944,271	322,550,180
1985	73,117,682	119,145,737	153,934,029	3,004,376	349,201,824
1986	78,979,863	130,507,996	171,115,676	3,333,819	383,937,354
1987	84,848,170	135,032,693	175,493,200	2,521,825	397,895,888
1988	89,667,853	145,784,980	161,724,032	2,280,893	399,457,758

Expenses By Type

Fiscal year	Benefits	Administrative Expenses	Transfers to other Ohio Retirement Systems	Refunds	Other	Total
1983	$119,831,633	$4,051,778	$1,215,546	$ 8,619,474	$ —	$133,718,431
1984	131,848,435	4,658,760	1,181,012	7,827,632	879,498	146,395,337
1985	146,785,150	5,673,205	1,486,990	8,373,795	—	162,319,140
1986	166,606,773	5,863,596	1,901,100	9,058,221	—	183,429,690
1987	192,787,851	6,599,526	1,498,114	10,267,756	—	211,153,247
1988	204,178,239	6,689,009	2,131,150	9,791,762	—	222,790,160

See accompanying auditors' report.

ADMINISTRATIVE EXPENSES

Schedule III

Years ended June 30, 1988 and 1987	1988	1987
Personal services:		
Salaries	$ 2,991,209	$ 2,923,857
Retirement contributions	405,634	392,961
Insurance	292,464	267,210
Total personal services	3,689,307	3,584,028
Professional services:		
Investment counsel	202,240	182,581
Computer support services	421,545	582,605
Medical	152,642	166,583
Technical and actuarial	200,161	151,917
Auditing	66,600	54,043
Employee training	61,037	67,507
Total professional services	1,104,225	1,205,236
Communications:		
Postage	266,655	238,716
Printing and publications	98,847	74,801
Telephone	57,072	49,133
Retirement counseling services	12,269	13,785
Total communications	434,843	376,435
Other services and charges:		
Equipment repairs and maintenance	191,481	209,951
Building occupancy and maintenance	217,835	228,374
Interest on notes payable (non-investment)	61,792	88,476
Supplies	86,827	99,097
Transportation and travel	93,137	121,166
Equipment rental	99,031	82,767
Surety bonds and insurance	81,112	46,271
Memberships and subscriptions	36,764	27,492
Retirement study commission	22,799	20,617
Miscellaneous	49,584	20,001
Total other services and charges	940,362	944,212
	6,168,737	6,109,911
Depreciation (non-investment):		
Furniture and equipment	421,396	391,267
Building	98,876	98,348
Total depreciation	520,272	489,615
Total administrative expenses	**$ 6,689,009**	**$ 6,599,526**

See accompanying auditors' report.

INVESTMENT SUMMARY
Schedule IV

Year ended June 30, 1988

	1987 Carrying Value	1987 Market Value	Purchases and Accretions	Sales, Redemptions and Accruals	1988 Carrying Value	1988 Market Value	% of Total Market Value
Corporate and government bonds and obligations	$ 484,362,180	$ 484,498,261	$ 476,845,007	$ (510,426,917)	$ 450,780,270	$ 446,520,724	18.6%
First mortgage loans and mortgage-backed securities	387,352,501	400,277,461	312,722,217	(162,745,204)	537,329,514	547,207,126	22.8
Common and preferred stocks	642,075,170	965,655,385	67,313,888	(65,223,474)	644,165,584	831,230,626	34.6
Short-term investments	241,794,481	242,669,718	3,155,001,293	(3,110,872,993)	285,922,781	286,771,027	11.9
Real estate, land and buildings	132,141,792	154,494,981	24,715,858	(10,032,956)	146,824,694	157,150,000	6.5
Commingled real estate funds	91,919,508	104,773,967	5,641,848	—	97,561,356	112,979,033	4.7
Capital development funds — limited partnerships	19,133,380	19,779,601	3,173,036	(469,955)	21,836,461	21,836,461	.9
Total investments	**$ 1,998,779,012**	**$ 2,372,149,374**	**$ 4,045,413,147**	**$ (3,859,771,499)**	**$ 2,184,420,660**	**$ 2,403,694,997**	**100.0%**

Year ended June 30,1987

	1986 Carrying Value	1986 Market Value	Purchases and Accretions	Sales, Redemptions, and Accruals	1987 Carrying Value	1987 Market Value	% of Total Market Value
Corporate and government bonds and obligations	$ 434,269,485	$ 458,698,644	$ 436,042,665	$ (385,949,970)	$ 484,362,180	$ 484,498,261	20.4%
First mortgage loans and mortgage-backed securities	408,183,347	426,747,883	124,877,705	(145,708,551)	387,352,501	400,277,461	16.9
Common and preferred stocks	535,014,725	732,997,117	155,675,730	(48,615,285)	642,075,170	965,655,385	40.8
Short-term investments	219,290,092	219,759,540	3,191,956,203	(3,169,451,814)	241,794,481	242,669,718	10.2
Real estate, land and buildings	99,239,296	122,362,196	50,768,433	(17,865,937)	132,141,792	154,494,981	6.5
Commingled real estate funds	86,257,815	98,204,826	5,661,693	—	91,919,508	104,773,967	4.4
Capital development funds — limited partnerships	15,000,000	14,695,373	4,500,000	(366,620)	19,133,380	19,779,601	.8
Total investments	**$ 1,797,254,760**	**$ 2,073,465,579**	**$ 3,969,482,429**	**$ (3,767,958,177)**	**$ 1,998,779,012**	**$ 2,372,149,374**	**100.0%**

See accompanying auditors' report.

FUND BALANCE ACCOUNTS
Schedule V

Description of Accounts (Funds)

Chapter 3309 of the Ohio Revised Code requires the establishment and maintenance of specific funds. These funds are classified as accounts for financial reporting purposes and are noted as follows:

(A) Employees' Savings Fund

The Employees' Savings Fund accumulates the contributions deducted from the compensation of members. Contributions may be refunded to a member who withdraws from SERS or to the member's beneficiary, following the member's death. Upon retirement, a member's accumulated contributions are transferred to the Annuity and Pension Reserve Fund.

(B) Employers' Trust Fund

The Employers' Trust Fund is the depository for employer contributions. Based on actuarial valuations, amounts are transferred out of this the fund into the Annuity and Pension Reserve Fund and the Survivor's Benefit Fund.

(C) Annuity and Pension Reserve Fund

The Annuity and Pension Reserve Fund is the fund from which all retirement, health care and death benefits are paid. Funds are transferred into the Annuity and Pension Reserve Fund from the Employees' Savings Fund and Employers' Trust Fund. In addition, contributions by the State of Ohio for supplemental benefits are recorded in this fund.

(D) Survivors' Benefit Fund

The Survivors' Benefit Fund represents amounts transferred from the Employees' Savings Fund and the Employers' Trust Fund for the payment of survivors' benefits.

(E) Guarantee Fund

The Guarantee Fund records all investment earnings of SERS. Annually, investment earnings are transferred to the Annuity and Pension Reserve Fund, the Survivors' Benefit Fund, and the Expense Fund.

(F) Expense Fund

The Expense Fund is used to record all expenses for the administration and management of SERS. Annually, funds are tranferred from the Guarantee Fund to cover expenses incurred.

A summary of the fund balance accounts follows:

Year ended June 30, 1988

	Employees' Savings Fund	Employers' Trust Fund	Annuity and Pension Reserve Fund	Survivors' Benefit Fund	Guarantee Fund	Expense Fund	Total 1988	Total 1987
Fund balance at beginning of year	$ 524,262,202	$ (364,838,644)	$ 1,793,538,273	$110,021,635	$ —	$ —	$ 2,062,983,466	$ 1,876,240,825
Changes for the year:								
Contributions:								
Employers	—	145,784,980	—	—	—	—	145,784,980	135,032,693
Employees	89,667,853		—	—	—	—	89,667,853	84,848,170
State of Ohio subsidies	—	1,197,528	—	—	—	—	1,197,528	1,320,740
Investment income	—	—	—	—	161,724,032	—	161,724,032	175,493,200
Transfer from other Ohio systems	—	—	1,083,365		—	—	1,083,365	1,201,085
Benefits:								
Retirement	—	—	(129,330,510)	—	—	—	(129,330,510)	(118,726,020)
Disability	—	—	(14,138,302)	—	—	—	(14,138,302)	(12,780,695)
Survivor	—	—		(9,479,476)	—	—	(9,479,476)	(8,958,365)
Health care	—	—	(50,568,576)	—	—	—	(50,568,576)	(51,728,280)
Death	—	—	(661,375)	—	—	—	(661,375)	(594,491)
Refunds of employee contributions	(9,791,762)	—	—	—	—	—	(9,791,762)	(10,267,756)
Administrative expenses	—	—	—	—	—	(6,689,009)	(6,689,009)	(6,599,526)
Transfer to other Ohio systems	—	—	(2,131,150)				(2,131,150)	(1,498,114)
Other transfers	(27,109,959)	(210,650,162)	374,432,375	18,362,769	(161,724,032)	6,689,009	—	—
Net changes	52,766,132	(63,667,654)	178,685,827	8,883,293	—	—	176,667,598	186,742,641
Fund balance at end of year	**$ 577,028,334**	**$ (428,506,298)**	**$ 1,972,224,100**	**$118,904,928**	**$ —**	**$ —**	**$ 2,239,651,064**	**$ 2,062,983,466**

See accompanying auditor's report.

AUDITOR OF STATE'S LETTER

THOMAS E. FERGUSON
AUDITOR OF STATE
COLUMBUS, OHIO 43266-0040
(614) 466-4514

DEPUTY AUDITORS:

McCULLOUGH WILLIAMS, III
Administration
(614) 466-4514

RICHARD G. NUSS, CPA
Department of Audit
(614) 466-4971

RUSSELL L. ROUCH
Management Advisory Service
(614) 466-4717

ASSOCIATE DEPUTY AUDITOR:

DWAINE E. GOULD
Information Systems Audits
(614) 466-4971

Offices of the
STATE AUDITOR
P.O. Box 1140
88 E. Broad Street
Broad at Third
Columbus, Ohio
43266-0040

Information Line toll free
1-800-282-0370

School Employees Retirement System of Ohio
45 North 4th Street
Columbus, Ohio 43215

We have reviewed the report of examination of the Financial Statements and Schedules for 1987 and 1988, (With Auditor's Report Thereon) of The School Employees Retirement System of Ohio, prepared by Touche Ross & Co., Certified Public Accountants. Based upon this review, we have accepted this report in lieu of the examination required by Section 117.11 of the Revised Code. The Auditor of State has not examined the documentation supporting the financial statements and reports and, accordingly, is unable to express an opinion on them.

Our review was made in reference to the applicable sections of legislative criteria as reflected by the Ohio Constitution; the Revised Code; polices, procedures and guidelines of the Auditor of State; and local resolutions/ordinances.

THOMAS E. FERGUSON
Auditor of State

January 15, 1989

Actuarial Section

Actuaries' Letter

Statement of Actuaries

ACTUARIES' LETTER

GABRIEL, ROEDER, SMITH & COMPANY
Actuaries & Consultants

200 Globe Building • 407 East Fort • Detroit, Michigan 48226 • 313-961-3346

December 14, 1988

The Retirement Board
School Employees Retirement System of Ohio
Columbus, Ohio

The basic financial objective of SERS is to establish and receive contributions which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Ohio citizens.

In order to determine SERS present financial position and level contribution rates for the future, annual actuarial valuations are made.

The latest completed actuarial valuation is based upon data and assumptions as of June 30, 1988. Conditions and results are shown in our reports.

Assumptions concerning future financial experiences are needed for an actuarial valuation. These assumptions are established by the Board after consulting with the actuary.

A program of annual actuarial gain/loss analysis is in operation; these analyses determine the relationship between assumed financial experience and actual experience, for each major risk area.

These actuarial gain/loss findings led to the adoption of substantial revised assumptions for the June 30, 1986 actuarial valuation. The assumed premiums for health care coverages are changed annually as premiums are changed by health care providers.

The statutory employer contribution rate is 14% of pay. An SERS policy decision now provides the following allocations: to basic benefits, the portion which will pay normal cost and 40 year amortization for unfunded actuarial accrued liabilities; and to health care benefits, the remainder of employer contributions.

On the basis of the 1988 valuation and the basic benefits and allocated contribution rates then in effect, it is our opinion that the basic benefits portion of SERS is in sound condition in accordance with actuarial principles of level cost financing.

The financial condition of health care benefits is different, and will be significantly affected by the provisions of Act 290 of 1988. Act 290 established a health care surcharge, a program to determine a minimum annual pay for use in calculating employer contribution dollars.

On the basis of the 1988 valuation and the health care benefits and allocated contribution rates then in effect, the allocated contributions are sufficient to provide level percent financing of the health care benefits as long as future health care cost inflation does not exceed future general price inflation.

Respectfully submitted,

GB Sonnenschein — Gerald B. Sonnenschein

RG Roeder — Richard G. Roeder

RGR:ct

STATEMENT OF ACTUARIES
(Valuation as of June 30, 1988)

Actuarial Cost Method and Assumptions

Basic Retirement Benefits

Employer contribution rates for basic benefits are determined using the entry age normal actuarial cost method. This method produces an employer contribution rate consisting of (1) an amount for normal cost (the estimated amount necessary to finance benefits earned by employees during the current service year), and (2) the amount for amortization of the unfunded actuarial accrued liability. The maximum statutory rate is 14%.

The present employer contribution rate of 14% is allocated between basic benefits and health care on the basis of SERS policy decision. The current policy requires the determination of a rate for basic benefits which will amortize the unfunded actuarial accrued liabilities over a 40-year period, with the remainder of the employer contribution rate allocated to providing health care benefits. At June 30, 1988, the rate thus determined for the funding of basic retirement benefits is 9.58%.

Health Care Benefits

Initially, beginning in 1974, the contribution rate for health care benefits was established at 0.75%, included in a total employer contribution rate of 12.5%. Health care contribution rates have been increased at various times since 1974, and the total employer contribution rate has been increased to the statutory 14% maximum. The portion of the employer contribution rate allocated to health care is 4.42%, which is insufficient by itself to provide level cost financing of the unfunded actuarial accrued health care liabilities. This is primarily due to the relatively low average salaries of the SERS contributing members.

Recent Ohio legislation, Act 290 of 1988, provided for an employer contribution surcharge to fund health care benefits. The surcharge is equal to 14% of the difference between the minimum pay and the member's pay, pro-rated for partial service credit. For the fiscal year beginning July 1, 1988 the minimum annual pay has been set at $7,710, and will be applied to member salaries paid during the year ended June 30, 1989. The surcharge rate, added to the unallocated portion of the 14% employer contribution rate, results in a total health care contribution rate of 5.81%. This rate is sufficient to provide level cost financing of the unfunded actuarial accrued liabilities for health care benefits.

Actuarial Assumptions

The assumptions used for the actuarial valuation were adopted by the Retirement Board after consulting with the actuary. Differences between assumed and actual experience (actuarial gains and losses) become part of unfunded actuarial accrued liabilities. When these differences between assumed and actual experience have been observed to be sizeable and persistent a change is made to the actuarial assumption.

The valuation assets as of June 30, 1988 were determined on a market related basis. The method used recognizes 20% of the previously unrecognized gains and losses (both realized and unrealized). To this was added the present value of expected future payments for House Bills 284 and 204, or $5,914,491.

The following significant assumptions were used in the actuarial valuations as of June 30, 1988:

(1) a rate of return on the investments of 7.5% compounded annually (net after administrative expenses). The real rate of return is the portion of total investment return which is more than the inflation rate. Considering inflation recognition of 4.5 percent, the 7.5 percent investment return rate translates to an assumed real rate of return of 3 percent. (For the period July 1, 1988 to June 30, 1991 the assumed rate of return on investments is 9.5%, reflecting an increase of 2% over the basic rate of return of 7.5%.)

(2) projected salary increases of 4.5%, compounded annually, attributable to inflation;

(3) additional projected salary increases ranging from 0% to 3% per year attributable to seniority and merit. Pay increase assumptions for individual active

STATEMENT OF ACTUARIES (Continued)
(Valuation as of June 30, 1988)

members are shown for sample ages in the following table.

Sample Age	Increase Next Year: Merit & Seniority	Base (Economy)	Total
20	3.0%	4.5%	7.5%
30	2.3	4.5	6.8
40	1.8	4.5	6.3
50	1.0	4.5	5.5
60	0.0	4.5	4.5

(4) eligibility for age and service retirement was assumed to be: age 50 with 30 or more years of service; or age 55 with 25 or more years of service, or age 60 with 5 or more years of service. Probabilities of retirement with an age and service allowance are shown in the following table for sample ages.

Probabilities of Age & Service Retirement

Percent of Eligible Active Members Retiring within Next Year

Sample Ages	Men	Women
50	15%	12%
55	10	18
60	10	25
65	40	35
70	50	50
75	100	100

(5) mortality of participants based on the 1971 Group Annuity Mortality Table projected to 1984 for men and women, with women's ages set back 1 year;

(6) rates of separation from active service before retirement are developed on the basis of actual plan experience. Probabilities of separation for sample ages are shown in the following table.

Probabilities of Separation from Active Employment before Age & Service Retirement

(Percent of Active Members Separating within the Next Year)

Men

Sample Ages	Death	Disability	Other
20	0.05%	0.00%	13.91%
30	0.07	0.01	6.55
40	0.15	0.10	4.64
50	0.49	0.33	3.06
60	1.21	—	2.02

Probabilities of Separation from Active Employment before Age & Service Retirement

(Percent of Active Members Separating within the Next Year)

Women

Sample Ages	Death	Disability	Other
20	0.02%	0.00%	11.57%
30	0.04	0.00	6.59
40	0.07	0.05	5.07
50	0.17	0.15	3.55
60	0.41	—	2.46

(7) health care premium increases of 4.5% annually with 25% of eligible female retirants and 60% of eligible male retirants electing a joint and survivor form of payment and 25% of eligible female retirants and 50% of eligible male retirants electing to cover spouses for health care; and

(8) eligibility of all health care benefit recipients for Medicare on attainment of age 65, or immediately if retired for disability.

Health Care Premium Rates:

Status	Monthly Rates Reported 1988	1987
Benefit recipient below age 65	$ 208.00	$ 202.13
Spouse below age 65*	45.00	109.67
Benefit recipient above age 65 and eligible for Medicare	42.00	42.04
Spouse above age 65 and eligible for Medicare*	13.80	26.07
Mail order prescription service	24.29	19.40

* System portion.

Medicare Part B Premium: $24.80 per month. (This premium is paid by the System.)

The non-economic assumptions are from the June 30, 1986 actuarial valuation and the economic assumptions (except for the additional 2% investment return to 1991) were established for the June 30, 1981 actuarial valuation.

STATEMENT OF ACTUARIES (Continued)
(Valuation as of June 30, 1988)

Actuarial Accrued Liabilities

Accrued liabilities are the present value of plan promises to pay benefits in the future, based upon service already rendered. A liability has been established ("accrued") because the service has been performed, but the resulting monthly cash benefit may not be payable until years in the future. Accrued liabilities are the result of complex mathematical calculations performed by a group of specialists, the plan's actuaries. The results of the computed actuarial accrued liabilities, using the entry age normal actuarial cost method, are disclosed in the following schedule.

Actuarial Accrued Liabilities June 30, 1988

Present Value Of	Actuarial Accrued Liabilities: Health Care	Basic Benefits
Future monthly benefits and death benefits to present retirants and survivors	$ 583,712,872	$ 1,513,212,546
Monthly benefits and refunds to present inactive members	31,176,004	50,010,231
Service allowances and health care benefits to present active members	415,693,510	1,625,782,020
Disability allowances and health care benefits to present active members	6,016,766	44,413,031
Death-after-retirement benefit ($500) on behalf of present active members	—	1,682,154
Survivor benefits on behalf of present active members who die before retiring	14,697,433	44,811,768
Refunds of member contributions of present active members	—	27,258,533
Benefits for present active members	436,407,709	1,743,947,506
Benefits for present covered persons	$ 1,051,296,585	$ 3,307,170,283

Membership Data

Information regarding active, inactive, and retired members is obtained from computer tapes provided by the retirement system. Membership data contained on the computer tapes is examined and tested for reasonableness.

Active Member Valuation Data, 1982 to 1988

Actuarial Valuation as of June 30	Number of Active Members	Annual Payroll (millions)	Average Annual Salary
1982	85,883	652.2	7,594
1983	85,186	682.9	8,017
1984	84,761	737.3	8,699
1985	86,838	804.2	9,261
1986	88,310	869.1	9,842
1987	89,534	931.4	10,403
1988	90,418	981.8	10,858

Retirants and Beneficiaries Added To and Removed From Rolls, 1979 to 1988

Fiscal Year Ended June 30	Additions During Year	Deletions During Year	Number at End of Year
1979	2,700	798	26,995
1980	2,605	608	28,992
1981	2,617	775	30,834
1982	2,953	924	32,863
1983	3,215	1,108	34,970
1984	3,145	1,315	36,800
1985	3,233	1,325	38,708
1986	3,807	1,478	41,037
1987	3,155	1,522	42,670
1988	3,512	2,215	43,967

STATEMENT OF ACTUARIES (Continued)
(Valuation as of June 30, 1988)

Short Condition Test

If the contributions to SERS are level in concept and soundly executed, the System will **pay all promised benefits when due — the ultimate test of financial soundness.** Testing for level contribution rates is **the long-term test.**

A short condition test is one means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with:

1) Active member contributions on deposit;
2) The liabilities for future benefits to present retired lives;
3) The liabilities for service already rendered by active members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the System. Liability 3 being fully funded is rare.

BASIC BENEFITS ($ In Millions)

June 30	(1) Member Contributions	(2) Retired Lives	(3) Present Members (Employer Portion)	(4) Valuation Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
1982	$324	$ 829	$ 668	$1,116	100%	96%	0%
1983	352	909	726	1,221	100	96	0
1984	396	1,011	759	1,390	100	98	0
1985	433	1,126	846	1,564	100	100	1
1985*	433	1,101	888	1,564	100	100	3
1986	475	1,228	967	1,781	100	100	8
1987	524	1,341	1,034	2,007	100	100	14
1988#	577	1,513	1,217	2,204	100	100	9

HEALTH CARE BENEFITS ($ In Millions)

June 30	(1) Member Contributions	(2) Retired Lives	(3) Present Members (Employer Portion)	(4) Valuation Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
1982	—	$243	$193	$ 86	—	35%	0%
1983	—	304	235	103	—	34	0
1984	—	361	266	108	—	30	0
1985	—	386	295	120	—	31	0
1985*	—	391	369	120	—	31	0
1986	—	461	404	131	—	28	0
1987	—	562	489	137	—	24	0
1988#	—	584	467	139	—	24	0

* Revised Financial Assumptions
# Legislated Benefit Increases

Statistical Section

Asset Coverage of
Accrued Liabilities

Benefit Expenses by Type

Number of Benefit
Recipients by Type

Number of
Participating Employers

Retirement Averages

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES AND PERCENTAGE COVERED BY NET ASSETS AVAILABLE FOR BENEFITS

Table I

Computed Actuarial Accrued Liabilities

Fiscal Year	Member Contributions	Current Retirants and Beneficiaries	Active Members, Employer Financed Portion	Net Assets Available for Benefits	Percentage of Accrued Liabilities Covered by Net Assets Available for Benefits (1)	(2)	(3)
1981	$ 298,254,671	$ 958,966,066	$ 767,525,356	$ 1,073,577,619	100 %	81 %	0 %
1982	324,180,388	1,071,728,280	860,604,478	1,189,392,619	100	81	0
1983	351,781,439	1,213,688,792	961,162,916	1,314,052,816	100	79	0
1984	396,230,502	1,371,162,368	1,025,589,111	1,488,850,477	100	80	0
1985	432,528,863	1,511,799,217	1,141,424,734	1,675,733,161	100	82	0
1986	475,218,163	1,688,209,450	1,371,411,464	1,876,240,825	100	83	0
1987	524,262,202	1,903,559,908	1,522,516,727	2,062,983,466	100	81	0
1988	577,028,334	2,096,925,418	1,684,513,116	2,239,651,064	100	79	0

NOTE: The ultimate test of financial soundness is the System's ability to pay all promised benefits when due. The System's progress in accumulating assets to pay all promised benefits can be measured by comparing the present assets of the System with (1) member contributions, (2) the liability for future benefits payable to current retirants and beneficiaries, and (3) the employer-financed portion of the liability for benefits payable to active plan participants.

In a System that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (1) and the liabilities for future benefits to present retired lives (2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (3) will be partially covered by the remainder of present assets. The larger the funded portion of liability (3) the stronger the condition of the System. Liability 3 being fully funded is rare.

NOTE: NCGA Statement 6, the authoritative guide used for financial reporting, requires that we present 10 years of comparative actuarial statistical data, disclosing the progress we have made in accumulating assets to pay benefits when due. Table I presents only 8 years of data, since 10 years is not available.

NCGA Statement 6 also states that "...Until 10 years of actuarial present value of credited projected benefits data become available, the data which are available should be disclosed." In Table I the entry age normal actuarial cost method was used to determine the actuarial liability. The entry age normal actuarial cost method is the same method used to determine employer and employee contribution rates.

BENEFIT EXPENSES BY TYPE
Last Ten Years
Table II

Year Ending June 30	BENEFITS Service	Disability	Survivor	Health Care	Death Benefits And Refunds	Total
1979	$ 44,834,588	$ 4,743,472	$ 4,855,008	$ 11,290,894	$ 10,656,975	$ 76,380,937
1980	49,938,156	5,619,031	5,221,125	15,809,333	10,003,023	86,590,668
1981	55,597,625	6,328,456	5,567,213	17,084,324	8,428,101	93,005,719
1982	64,708,104	7,294,601	6,240,292	23,460,414	10,340,929	112,044,340
1983	75,497,557	8,076,576	6,756,619	28,959,381	9,160,974	128,451,107
1984	85,444,144	9,270,155	7,389,851	29,153,910	8,418,007	139,676,067
1985	96,910,985	10,527,898	8,004,136	30,778,698	8,937,228	155,158,945
1986	108,321,454	11,785,441	8,360,152	37,499,209	9,698,738	175,664,994
1987	118,726,020	12,780,695	8,958,365	51,728,280	10,862,247	203,055,607
1988	129,330,510	14,138,302	9,479,476	50,568,576	10,453,137	213,970,001

NUMBER OF BENEFIT RECIPIENTS BY TYPE
Last Ten Years
Table III

Year Ending June 30	Service	Disability	Survivor	Total
1979	22,869	1,867	2,259	26,995
1980	24,539	2,083	2,370	28,992
1981	26,120	2,237	2,477	30,834
1982	27,955	2,343	2,565	32,863
1983	29,839	2,473	2,658	34,970
1984	31,467	2,602	2,731	36,800
1985	33,145	2,754	2,809	38,708
1986	35,266	2,898	2,873	41,037
1987	36,750	2,977	2,943	42,670
1988	37,877	3,084	3,006	43,967

NUMBER OF PARTICIPATING EMPLOYERS
Last Ten Years
Table IV

Year	Total	Counties	Locals	Cities	Villages	Colleges	Technical	Vocational	Other
1979	768	86	381	187	49	2	13	49	1
1980	768	86	378	189	49	2	13	50	1
1981	769	86	378	189	49	2	13	51	1
1982	769	87	376	191	49	2	13	50	1
1983	769	87	375	192	49	2	13	50	1
1984	769	87	376	192	49	2	13	49	1
1985	768	86	376	192	49	2	13	49	1
1986	769	86	376	192	49	2	13	49	2
1987	769	86	376	192	49	2	13	49	2
1988	768	84	376	192	49	2	13	49	3

RETIREMENT AVERAGES
Last Ten Years

Table V

Service Retirement

Year Ending June 30	Service Credit	Monthly Amount	Age	Salary
1979	16.495	$ 200.63	63.28	$ 6,821.83
1980	16.326	209.82	63.32	7,221.61
1981	16.626	218.08	63.22	7,495.31
1982	16.578	229.24	63.25	8,069.35
1983	16.617	250.60	63.14	8,603.00
1984	17.427	292.43	63.85	9,939.34
1985	17.821	315.79	63.82	10,525.29
1986	16.846	304.73	63.64	10,292.51
1987	17.635	328.76	63.77	10,458.45
1988	19.019	378.29	62.13	11,989.48

Disability Retirement

Year Ending June 30	Service Credit	Monthly Amount	Age	Salary
1979	12.963	$ 282.13	52.79	$ 7,185.03
1980	13.381	297.37	52.83	7,566.03
1981	12.610	275.07	52.52	7,162.84
1982	13.854	324.63	53.00	8,473.21
1983	13.035	323.05	52.29	8,166.18
1984	14.128	426.96	53.20	10,803.67
1985	12.362	402.31	56.69	10,917.61
1986	13.339	431.18	56.20	10,872.24
1987	13.484	466.02	57.42	12,184.23
1988	13.086	509.27	54.64	13,060.46

Investment Section

Investment Portfolio Distribution

Investment Report

Portfolio Summary

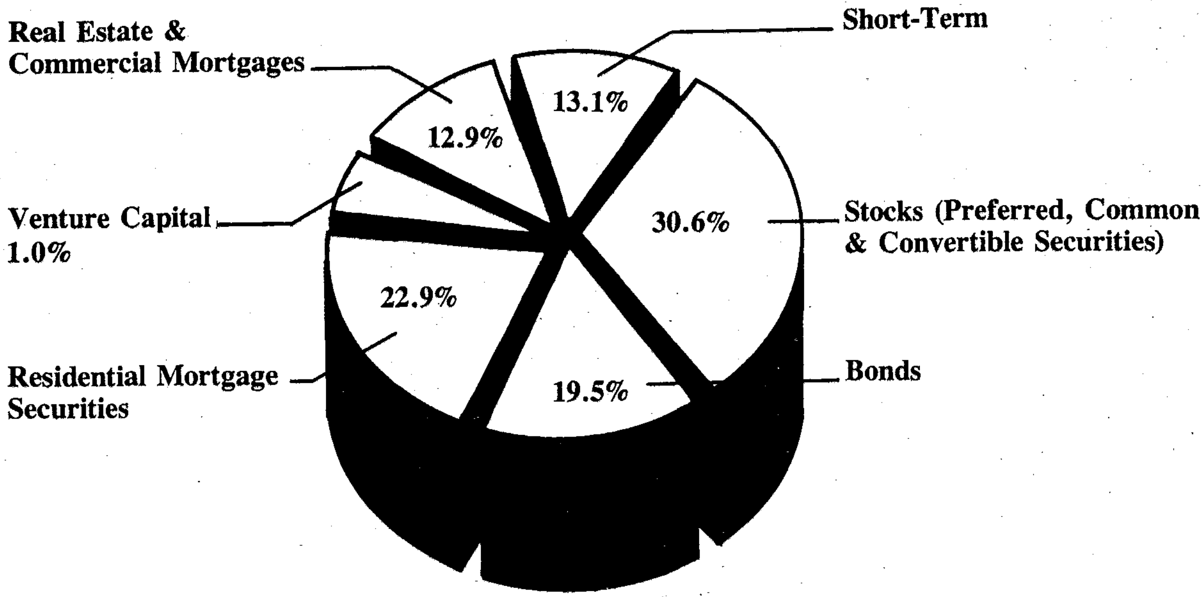
Schedules

Exhibits

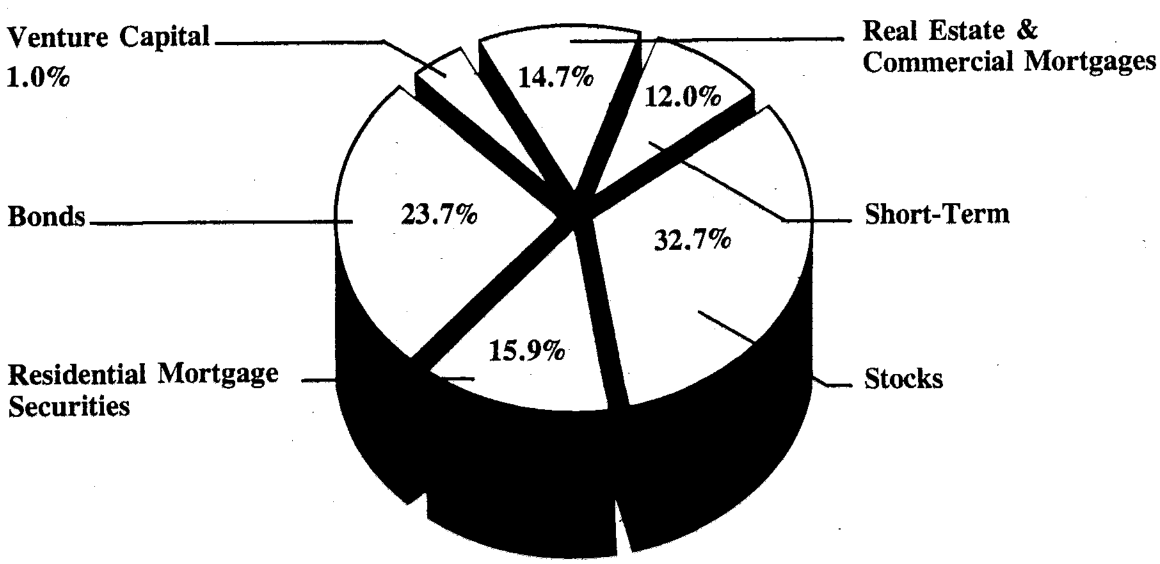
Investment Policy

INVESTMENT PORTFOLIO DISTRIBUTION (By Book Value)

June 30, 1988



June 30, 1987



INVESTMENT REPORT

The U.S. economy continued on its slow growth path for a fifth year in a row and is expected to continue expanding through most of the coming fiscal year. GNP growth for the year ended June 30, 1988 was 4.2% which was slightly stronger than the prior fiscal year's GNP growth. Again most of the growth in the economy this year came from Industrial America; and the strength for the coming year is also expected to come from this sector. Inflation increased modestly during the past year to approximately 4% and is expected to increase further to 4.5% or 5% during the coming year.

Many of the concerns expressed last year about the U.S. economy are still prevalent today. The U.S. trade deficit has improved marginally, but is still very large. The budget deficit remains too large with no resolution in sight. Additionally, as mentioned above inflation pressures seem to be picking up slightly. All of these concerns will lead to volatility in the securities markets over the coming year.

The Fund grew again this year, but not as much as in prior years. This was probably because of the large decline in equity prices in October, 1987 and the fact that prices have only recovered partially since then. The market value of the Fund on June 30, 1988 was $2.40 billion as compared to $2.37 billion in June, 1987. On June 30, 1988, the percent of the Fund invested in equities declined to 30.6% from 32.7% last year while the percent of the Fund invested in fixed-income securities increased to 42.4% from 39.6% on June 30, 1987. This shift in asset allocation benefited the Fund since equities as measured by the S&P 500 were down 6.9% for the period and fixed-income assets were up 7.5% as measured by the Shearson Lehman Gov't./Corp. index. The Fund had a total return of 0.9% for the year ended June 30, 1988, and it had an average annual return of 11.6% for each of the last five years.

Because of the large decline in equity prices in October, 1987, returns for the equity portfolios for the year ended June 30, 1988 were a negative 7.3%. The Internal Equity fund continued to outperform the Core Equity fund and the S&P 500, although it still had a slightly negative return of 2.3% for the fiscal year. For the five years ended June, 1988 the equity portfolios had an average annual return of 12.4% per year.

Much of the new cash earned by the Fund was reinvested in fixed-income securities. This resulted in the growth of the fixed-income portfolio to 42.4% of the Fund from 39.6% last year. The fixed-income portfolio returned 7.7% during the year ended June 30; and it had an average annual return of 12.8% over the last five years.

Because of the sale of several real estate properties and the lack of purchase of any new properties during the year, the percent of the Fund invested in real estate declined from 14.7% to 12.9% on June 30, 1988. Real estate has not performed particularly well in the past year or so; this is probably the result of overbuilding in many areas of the country. For this reason no new money was committed to real estate during that period. Real estate had an average annual return of 8.6% for each of the last five years.

For the coming fiscal year, we expect the U.S. economy to continue growing through most of 1989. However, we also expect inflation to pick up moderately to the 4.5% or 5% level. Congress and our new President will face the challenge of reducing the trade deficit and the budget deficit. We do not expect a recession in the U.S. economy until late in 1989 at the earliest. Because of the uncertainty regarding the resolution of these concerns, we expect both the equity and fixed-income markets to remain very volatile during the coming year. On weakness in either market we will accumulate high quality securities. The real estate market, though still depressed in many areas, seems to be bottoming out. We intend to take advantage of this situation by purchasing selected properties which seem to represent value. We anticipate that by June, 1989 the Fund will be invested in the following manner: 31% in equities; 45% in fixed-income; 15% in real estate; 1% in venture capital; and 8% in cash equivalents.

PORTFOLIO SUMMARY

Schedule I

Investment Category	Par Value	June 30, 1988 Book Value	Market Value	June 30, 1987 Market Value	June 30, 1986 Market Value
U.S. Government & Agency Bonds	$ 218,350,800	$ 216,404,155	$ 216,343,993	$ 191,525,812	$ 193,788,207
Corporate Bonds	99,939,000	98,820,546	98,150,788	239,370,132	263,939,187
Canadian Bonds	113,700,000	111,829,766	109,700,805	41,927,019	—
GNMA/FHLMC/FHA/ VA/HUD Mortgages & Mortgage-Backed Pass-Thrus	513,452,106	500,510,330	503,961,117	324,237,461	347,830,880
Common and Preferred Stocks & Convertible Securities	669,005,584	667,891,387	853,555,764	977,330,683	733,968,367
Investment Real Estate (Including Equity Participating Mortgages)	291,422,098	267,353,443	295,475,042	318,333,948	275,228,024
Commercial & Industrial Mortgages	13,851,791	13,851,791	17,900,000	16,975,000	24,256,001
Venture Capital	21,434,787	21,836,461	21,836,461	19,779,601	14,695,373
Short-Term Investments	287,500,000	285,922,781	286,771,027	242,669,718	219,759,540
	$ 2,228,656,166	**$ 2,184,420,660**	**$ 2,403,694,997**	**$ 2,372,149,374**	**$ 2,073,465,579**

PORTFOLIO RATES OF RETURN
(Average annual total returns for the periods ended June 30)

Schedule II

Asset Category	One Year	Three Year	Five Year
Equity Portfolios	(7.3%)	15.9%	12.4%
Bond Portfolio	7.6	10.2	12.3
Residential Mortgage Portfolio	7.9	11.1	13.5
Short-Term Investment Portfolio	7.2	7.2	8.2
Total Fund	**0.9%**	**11.3%**	**11.6%**

NOTE: Real Estate Portfolio returns are included in the total return of the Fund for each period; and for the last five years these assets have returned 8.6% annually.

QUALITY OF COMMON STOCKS (By Market Value)

Exhibit I

Quality Rating	Percent Of Stock
A+	26.7%
A	25.7
A−	20.9
B+	11.9
B	11.4
B−	2.2
C	0.5
D	--
Not Rated	0.7

Of the stocks owned by the System, the majority fall within the top three quality grades as rated by Standard and Poor's Corporation with respect to the relative stability and growth of earnings and dividends. The 0.7 percent in the non-rated category are banks and insurance companies which are not rated by Standard and Poor's as a matter of policy.

A+	Highest	B	Below Average
A	High	B−	Low
A−	Above Average	C	Lowest
B+	Average	D	In Reorganization

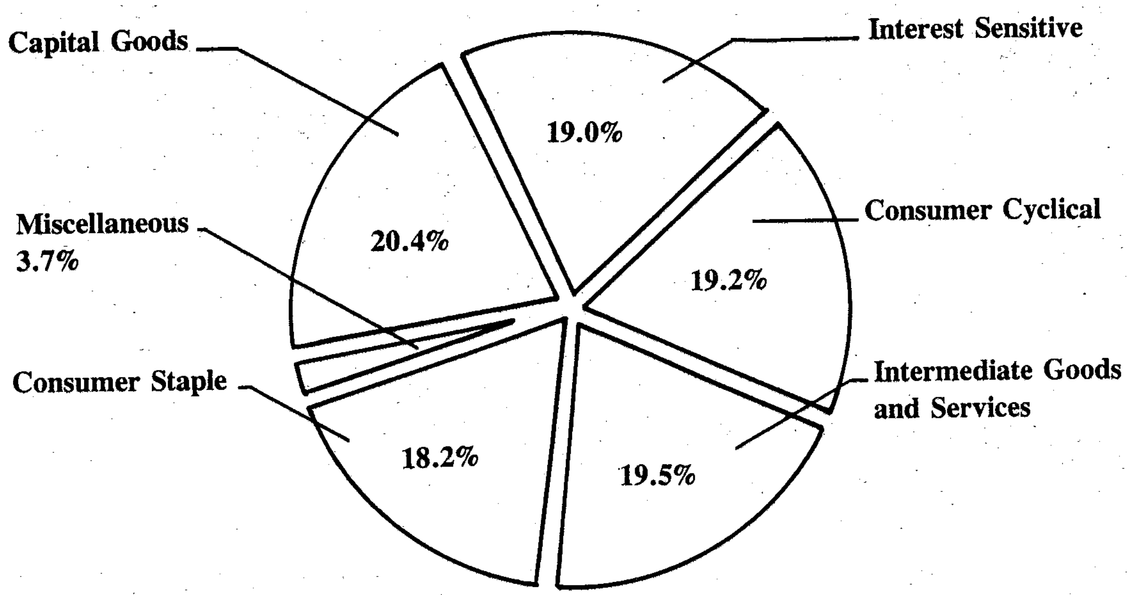
TWENTY LARGEST COMMON STOCK HOLDINGS (By Market Value)

Exhibit II

Company	Shares	Market Value	% Of Stock Portfolio
Exxon Corp.	609,200	$ 27,642,450	3.24%
International Business Machines Corp.	202,900	25,844,388	3.02
General Electric Co.	314,200	13,785,525	1.62
Eastman Kodak Co.	251,000	11,357,750	1.33
Minnesota Mining & Mfg. Co.	167,200	11,035,200	1.29
Chevron Corp.	233,900	10,613,213	1.24
Hewlett-Packard Co.	170,400	9,499,800	1.11
Wal Mart Stores, Inc.	309,400	9,475,375	1.11
DuPont (E.I) De Nemours & Co.	98,700	9,166,763	1.07
Mobil Corp.	196,500	8,552,100	1.00
General Motors Corp.	101,300	8,116,663	0.95
American Telephone & Telegraph Co.	292,300	7,819,025	0.92
Westinghouse Electric Co.	137,700	7,745,625	0.91
Ford Motor Co.	141,000	7,508,250	0.88
Southwestern Bell Corp.	178,800	7,084,950	0.83
Dow Chemical Co.	77,200	7,015,550	0.82
Pfizer Inc.	134,600	6,948,725	0.81
American Home Products Corp.	92,500	6,833,438	0.80
American International Group, Inc.	109,300	6,366,725	0.75
Amoco Corp.	85,700	6,234,675	0.73

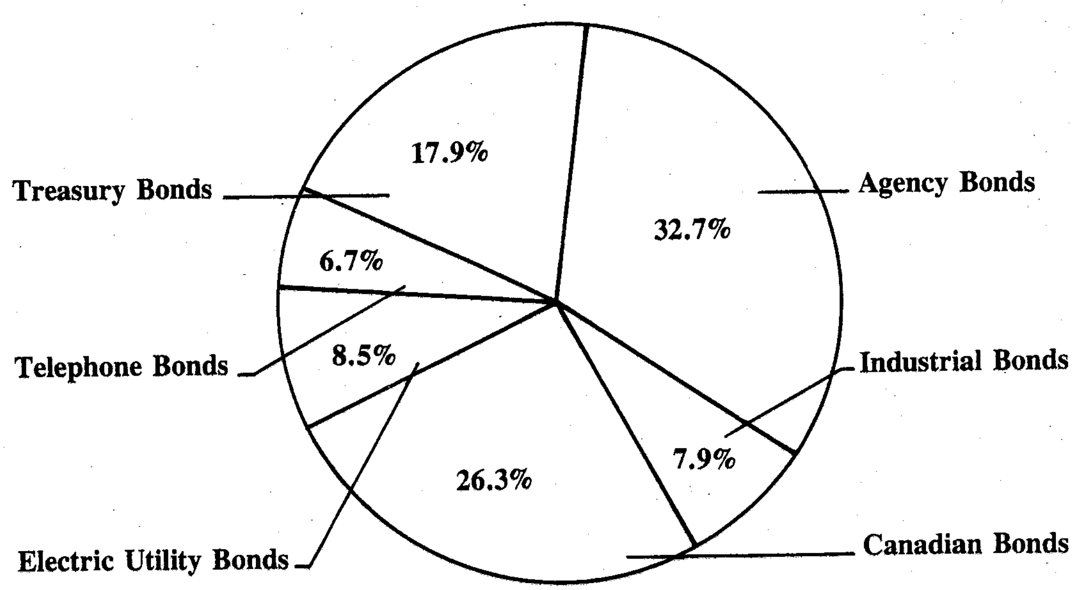
DIVERSIFICATION OF COMMON STOCKS (By Market Value)

Exhibit III



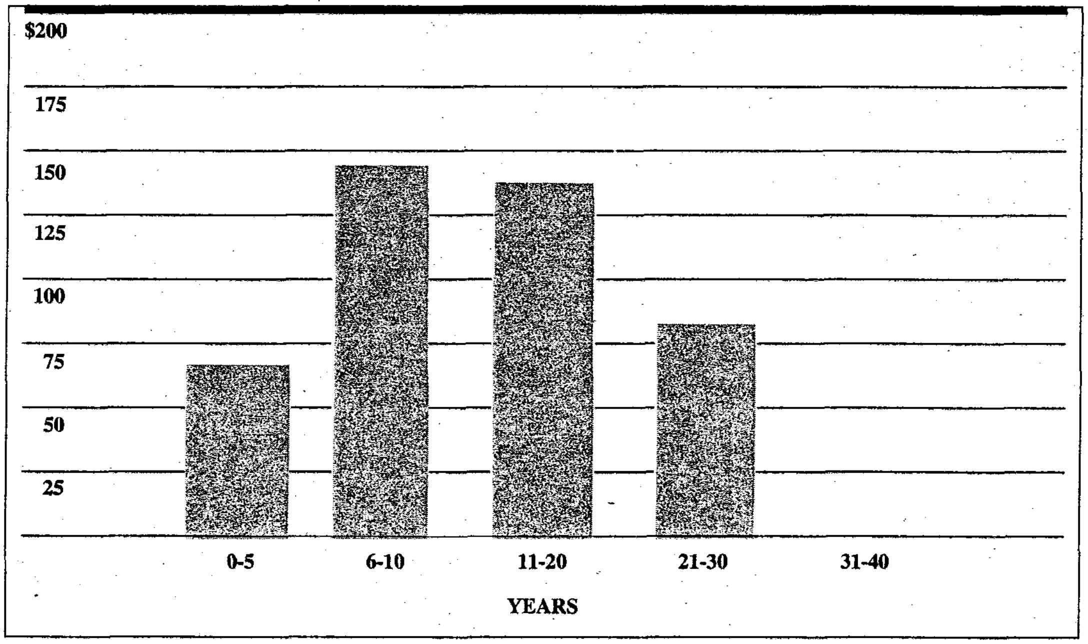
BOND PORTFOLIO BY SECTOR (By Par Value)

Exhibit IV



BOND PORTFOLIO BY MATURITY (By Par Value)

Exhibit V

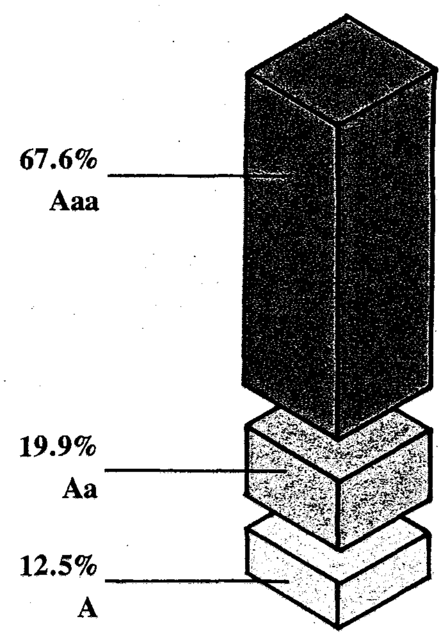


NOTE: $ Amounts in millions.

BOND PORTFOLIO QUALITY RATINGS BY MOODY'S (By Par Value)

Exhibit VI

All of the bonds in the portfolio fall within the top three grades of the nine bond quality ratings established by Moody's Investors Services, Inc.



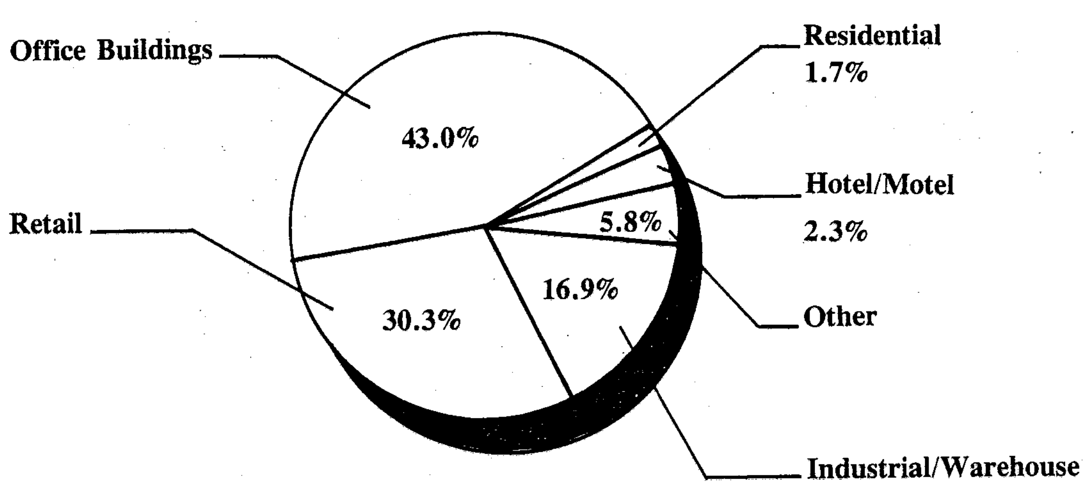
TWENTY LARGEST FIXED INCOME HOLDINGS (By Market Value)

Exhibit VII

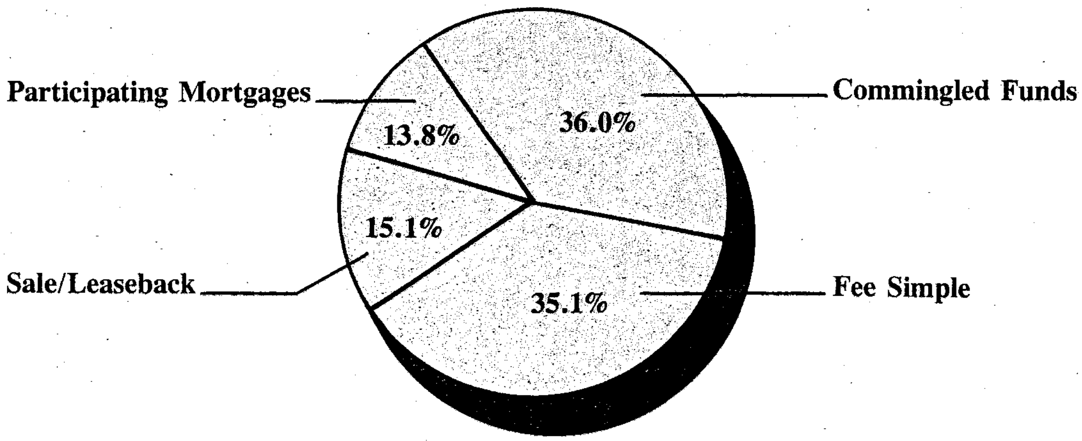
Security	Par Value	Market Value	% Of Fixed Portfolio
1) FHLMC Multifamily 8.75% 10-1-01	$ 44,486,105.34	$ 42,094,977.18	4.5%
2) FHLMC Multifamily 9.00% 5-1-97	30,416,394.52	30,228,028.91	3.3
3) Hydro-Quebec 9.75% 8-1-05	30,000,000.00	29,505,358.00	3.2
4) FHLMC Multifamily 8.75% 2-1-01	28,586,029.00	27,120,995.01	2.9
5) FHLMC Cap Deb 8.65% 10-1-96	25,000,000.00	24,062,500.00	2.6
6) FHLMC Part CTF 10% 9-1-17	22,703,277.76	22,703,277.76	2.4
7) FHLMC GMC 12.45% 9-15-09	20,050,800.00	22,256,388.00	2.4
8) FHLMC Series 88-12 9.25% 11-15-19	20,000,000.00	19,900,000.00	2.1
9) U.S. Treasury Note 7.125% 2-28-90	20,000,000.00	19,737,500.00	2.1
10) FHLMC Multifamily 9% 6-1-97	20,156,795.67	19,640,378.56	2.1
11) FHLMC Series 8B 9.50% 2-15-18	20,000,000.00	19,088,000.00	2.1
12) FHLMC CMO M-5 8.65% 6-1-05	20,000,000.00	18,400,000.00	2.0
13) FHLMC Multifamily 9.25% 6-1-02	17,787,990.75	17,259,900.00	1.9
14) FHLMC Part CTF 9.00% 11-1-16	17,085,068.37	16,241,407.01	1.7
15) FHLMC Part CTF 9.50% 10-1-16	15,849,756.00	15,483,150.01	1.7
16) Pacific Telephone & Telegraph 9.875% 2-15-16	14,500,000.00	14,246,250.00	1.5
17) Province of Ontario 9.75% 3-1-09	14,000,000.00	13,812,327.00	1.5
18) Province of Ontario 9.25% 11-15-05	14,500,000.00	13,779,334.00	1.5
19) Province of Ontario 9.375% 11-30-08	14,000,000.00	13,416,898.00	1.4
20) British Columbia Hydro 9.625% 6-1-05	13,000,000.00	12,706,758.00	1.4

REAL ESTATE PORTFOLIO BY PROPERTY TYPE (Including Commingled Funds)

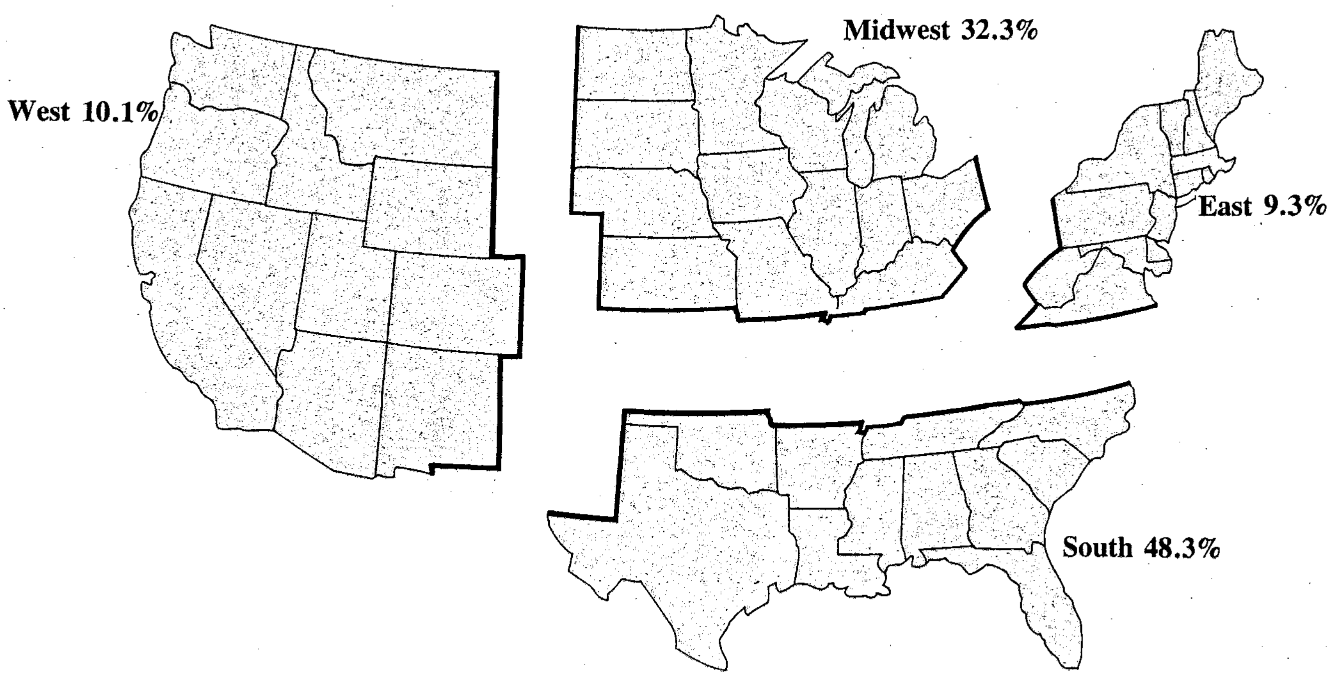
Exhibit VIII



REAL ESTATE PORTFOLIO BY TYPE OF OWNERSHIP
Exhibit IX



PERCENT OF REAL ESTATE PORTFOLIO BY GEOGRAPHICAL LOCATION (Including Commingled Funds)
Exhibit X



INVESTMENT POLICY

This Investment Policy was adopted by the School Employees Retirement Board Of Ohio at its August 2, 1985 meeting and revised on September 4, 1987.

A. Purpose

The purpose of this Statement of Investment Policy is to define the Retirement Board's investment philosophy and objectives for the School Employees Retirement System of Ohio. This statement sets forth policies and describes the organization and division of responsibilities to prudently implement the Board's philosophy and objectives in accordance with Section 3309.15 of the Ohio Revised Code. It also establishes the framework and specific objectives to monitor investment performance and promote effective communication between the Board and the Investment Staff and Investment Managers.

The contents of this Statement of Investment Policy and the associated Guidelines and Objectives are subject to change at any time by the Board. The Statement will be reviewed and revised periodically to assure that it continues to reflect the attitudes, expectations and objectives of the Board.

B. Background

The School Employees Retirement System of Ohio was established by the state legislature to provide retirement and disability benefits for all non-certificated persons employed by the state's school districts. This purpose is sustained by the member and employer contributions and returns realized from investment of those contributions.

The System is governed by a seven member board, including the Ohio Attorney General and Auditor of State, with responsibility for the investment function as set forth in the Ohio Revised Code. In addition to the investment function, the Ohio Revised Code also sets forth the fiduciary responsibility of the Board and of other fiduciaries in discharging their duties with respect to the fund. This Statement of Investment Policy incorporates and is subject to all restrictions, guidelines and obligations set forth by the Ohio Revised Code.

C. Investment Philosophy

Risk Posture

The Board realizes that its primary objective is to assure that the Plan meet its responsibilities for providing retirement and other benefits. Therefore, it shall always act to assure that the level of investment risk in the portfolio shall be prudent and shall not jeopardize that primary objective.

Return

The Board believes, however, that over the long-term there exists a relationship between the level of investment risk taken and rate of investment return realized. The Board feels that assumption of a moderate level of risk associated with investments is reasonable and justified in order to enhance potential long-term investment results.

Diversification

The Board seeks diversification by asset class and by investment approach and individual investments within asset classes to reduce overall portfolio risk.

Liquidity Requirements

The System anticipates positive cash flow over the near-term and intermediate-term. Liquidity, for the purpose of immediate and intermediate-term benefit payments, is therefore not a major consideration in the investment of funds for the foreseeable future.

D. Investment Objectives

In defining investment objectives the Board seeks to enhance the investment returns of the fund in order to permit higher benefits and to achieve lower costs. Therefore, it adopts the following general investment objectives:

Performance Objectives

A. Maximize Total Return on Assets: Recognizing the System's obligations will increase as a result of inflation, to maximize the total return on assets available for the provision of benefits while operating in accordance with applicable regulatory restrictions and within prudent parameters of risk.

INVESTMENT POLICY (Continued)

D. Investment Objectives (Continued)

Performance Objectives (Continued)

B. Preservation of Principal: To protect the System from severe depreciation in asset value during adverse market conditions. This objective shall be obtained by broad diversification of assets and by careful review of risks.

C. Competitive Results: To achieve investment results competitive with those of the broad market and of similar funds. Long-term results shall be emphasized.

Risk

A. Stability: While the Board seeks higher long-term investment results, it also seeks to avoid major fluctuations in year-to-year results.

B. Risk Level: The Board seeks to maintain a reasonable degree of total portfolio risk, defined as that which would be experienced by similar retirement systems.

Other

Ohio Investments: Where investment characteristics, including return, risk and liquidity, are equivalent, the Board will give careful consideration to investments which will have a positive impact on the economy of Ohio.

E. Implementation Approach

In order to monitor and control the activities within the investment function, the Board has reserved certain responsibilities for itself. It has also delegated certain responsibilities to the Investment Staff, to organizations serving as Investment Managers and, from time to time, to other consultants or advisors. These are enumerated in Section F, Investment Organization and Responsibilities.

In fulfilling its fiduciary duties, the Retirement Board employs a competent and qualified Investment Staff for the management of the major portion of portfolio assets. In these areas where specialized expertise is required, the Retirement Board employs the services of outside Investment Managers.

The Board also established a reporting process for regular and timely review and evaluation of investment results. This is described in Section G, Review and Evaluation. Finally, the Board has adopted Investment Guidelines and Objectives for each asset class and each investment management accountability unit within those asset classes. These guidelines also specify long-term target ratios for asset allocations. These guidelines and objectives are regularly evaluated and updated based on market conditions, investment results and the recommendations of the Investment Staff, Investment Managers and other consultants or advisors.

F. Investment Organization and Responsibilities

Responsibilities of the Retirement Board

The Retirement Board recognizes its responsibility to ensure that the assets of the Plan are managed effectively and prudently, in full compliance with all applicable laws, and for the exclusive benefit of participants and beneficiaries. The Board believes it can best manage those responsibilities by delegating certain specific duties to others, as described below. In addition, the Board may designate certain of its members to act as an Investment Committee or a Subcommittee from time to time, and may delegate certain decision-making or fact-finding responsibilities to that committee or subcommittee.

Specific responsibilities of the Retirement Board or its Investment Committee or Subcommittee are as follows:

A. Ensure that all fiduciaries comply with the Ohio Revised Code and any other applicable regulations and legislation.

B. Establish investment policies, guidelines and objectives for the assets of the Plan and communicate them to the Investment Staff and Investment Managers.

C. Appoint and discharge those with responsibility for managing the Plan's assets, including investment managers, consultants and any others involved.

D. Request, receive and review reports from the Investment Staff and Investment Managers.

INVESTMENT POLICY (Continued)

F. Investment Organization and Responsibilities (Continued)

Responsibilities of the Investment Staff

A. Obtain necessary reports on the investment results of the Plan's assets on a timely basis as specified in Section G, Review and Evaluation.

B. Retain any consultants or advisors deemed necessary or desirable for assistance in the investment of Plan assets, and for meeting his responsibilities.

C. Oversee the investment function.

The Assistant Director for Investments shall accept the following responsibilities:

A. Administer the policies, guidelines and objectives adopted by the Retirement Board of the School Employees Retirement System of Ohio in compliance with the relevant sections of the Ohio Revised Code.

B. Inform and communicate to other Plan fiduciaries, including all Investment Managers, the requirements of the Ohio Revised Code and the policies, guidelines and objectives adopted by the Retirement Board, and monitor their compliance.

C. Prepare annually an Annual Plan for the investment of the Plan's assets with recognition of the target asset mix ratios and the permissible ranges for asset allocation established by the Board.

D. Implement the Annual Plan, exercising the judgments allowed by the Board as to the asset allocation ranges for that year.

E. Report to the Board or its Investment Committee any intra-year changes in the Annual Plan or in the policy, guidelines or objectives which the Investment Staff deems desirable or which are recommended by an Investment Manager or other consultants or advisors.

F. Oversee the activities of the Investment Staff.

Responsibilities of the Investment Managers

Each Investment Manager, including Investment Staff with respect to internally managed assets, shall accept the following responsibilities for the specified investment management accountability unit that it manages.

A. Manage the assets within its control in compliance with the relevant sections of the Ohio Revised Code and with the policies, guidelines and objectives adopted by the Retirement Board.

B. Exercise investment discretion within the guidelines and objectives specified, including decisions to buy, hold or sell securities based on the manager's current investment strategy and outlook, and compatible with such objectives.

C. Inform the Retirement Board or the Investment Committee of any substantial changes in investment strategy, portfolio structure, value of assets, and of any organizational changes including that of ownership, affiliation, organizational structure, financial condition, or changes in professional personnel staffing the investment management organization.

D. Prepare reports for the Board or Investment Committee prior to any scheduled meetings but at least on a quarterly basis.

E. Recommend to the Board or Investment Committee any changes in policy, guidelines or objectives the Investment Manager believes to be desirable.

G. Review and Evaluation

The Board shall review and evaluate periodic reports on the investment results of the Plan's assets, as described below, obtained by the Executive Director. In addition, the Board shall review the periodic reports of each Investment Manager. In these reviews, it is intended that greater emphasis shall be given to long-term results than to short-term results. Following is the intended frequency for the review and evaluation, although these may be altered by the Board as deemed necessary:

INVESTMENT POLICY (Continued)

G. Review and Evaluation (Continued)

Quarterly

Summary Investment Reports — including highlights and commentary of investment performance, asset composition and holdings for each asset class and each investment management accountability unit. These reports shall identify any results which require the attention of the Board.

Investment Manager Reports — prepared by the manager of each investment management accountability unit, reporting on the results of the most recent period.

Annually

Detailed annual investment reports — these reports will include the contents of the quarterly summary reports, as well as additional detail regarding the investment results for each investment management accountability unit.

Written and/or verbal reports presented by the manager of each investment management accountability unit. These shall be scheduled on a staggered basis throughout the year, as determined appropriate by the Board.

Purpose

The School Employees Retirement System of Ohio was established in 1937 by the state legislature to provide retirement and disability benefits for all non-certificated persons employed by the state's 768 school districts. This purpose is sustained by the member and employer contributions and the income realized from investment of those contributions.

Administration

The functioning of SERS is supervised by a seven member Board which works in conjunction with the System's Executive Director. Four of the seven Board members are elected by the general membership (those who contribute to SERS) and one is elected by retirants. The Ohio Attorney General and State Auditor, by virtue of their elected office, serve as the remaining two Board members in an ex officio capacity.

The Executive Director is appointed by the Board. This person oversees the administrative operation of the System, and is aided by five directors. Their areas of responsibility are finance, investments, member services, planning and development, and management information services.

Employer Participation

The school employers served by SERS include public schools within the state's cities, villages and counties, as well as local districts, vocational and technical schools, and The University of Akron.

Employers contribute to SERS at the rate of 14.0% of payroll. Some employers pay the System directly on a monthly, quarterly, or annual basis, while others make payments through participation in the Ohio Department of Education's School Foundation Fund.

In addition to forwarding appropriate contribution amounts to SERS, it is the responsibility of the employers to supply SERS with new membership records, members' contribution information, and any data needed at the time of a member's application for benefits or refund of deposits on termination of employment.

Employee Participation

Membership in SERS is divided into several groups based on the activity of a member's SERS account.

Member groups are:

A. **Active Members** — These are persons currently employed by a school employer. Membership is required for most employees working in a position that does not require certification by the Ohio Department of Education. These persons include clerical workers, maintenance personnel, bus drivers, food service workers, playground supervisors, data processing personnel, etc. There are two exceptions to the membership requirements: (1) Persons with student status within a school district may or may not choose to become members of SERS. (2) Persons retired from one of the other Ohio state retirement systems may not become members of SERS. A retired member may not be employed in the schools for 60 calendar days following the effective date of retirement. Thereafter, employment in the school cannot exceed 59 days in the fiscal year, beginning July 1. Active members have an amount equal to 8.75% of their earnings deducted from their gross salaries for each payroll period. These amounts are then forwarded to SERS by the payroll officer, and applied to the member's account at SERS.

B. **Inactive Members** — These are persons who have contributions on deposit with SERS, but are not currently employed by a school district in the state of Ohio.

C. **Retired/Disabled Members** — These are persons who have either (1) met the age and service requirements for retirement from service; or (2) become eligible to receive benefits as a result of an injury or illness that prevents the member from performing regularly assigned duties.

D. **Members' Survivors** — When a member dies before retirement, the qualified beneficiaries become eligible for monthly benefits from SERS.

Refund of Contributions

A member is entitled to a full refund of contributions with SERS upon termination of school employment. Only the money the member has contributed is refundable.

In accordance with Ohio Revised Code, there is a

90-day waiting period after the member's last day of service before the refund can be paid. A refund cancels any claim to benefits offered by SERS.

The refunded amount, plus interest, may be redeposited if, at some later date, the member returns to school service or to any other public service with the state of Ohio. This purchase may be made after the member has been credited with 1.5 years of contributing service.

Service Retirement

Members may retire from school employment if they have attained one of three combinations of age or service:

1. Five years of service and age 60, or
2. Twenty-five years of service and age 55-60, or
3. Thirty years of service at any age.

A member's age is defined to be the actual age a person has reached on the day of retirement. Any change of the date of birth on our records must be substantiated by submitting proof of date of birth to the System.

Service Credit

Service credit is the actual number of years or fraction thereof a person worked within a school district or districts in Ohio schools, plus any other free or purchased service the System recognizes.

Free service is service for which no contributions are required. This includes military service performed while on leave from the school district; service with a school system before establishment of SERS in 1937; or service granted for a period (three years or less) spent off the district's payroll while drawing state worker's compensation for a school job-related accident.

Purchased service is service for which payment plus interest is required. The interest rate is 7.5%. Service must be purchased before the date of retirement if it is to be considered in calculating the member's benefits. Payment may be made in a lump sum or in multiples of one month or more so long as the complete amount due is tendered before retirement. The types of service that can be purchased are:

Military — A member may purchase up to five years of credit in SERS for active service in the armed forces of the U.S. There is no restriction placed on the time elapsed between school employment and the time spent in the military. A member may purchase additional service credit if the military service includes prisoner of war time. Purchased credit may not be greater than the member's actual Ohio school employment credit.

Federal, Other State, Or School Service — The member may purchase credit for service rendered in a school or government position outside the State of Ohio. The amount of service cannot be greater than the member's SERS service nor can it exceed five years.

Refunded Service — Service lost due to the payment of a refund may be restored after the member has returned to work and accrued 1.5 years of service covered by SERS, STRS, PERS, PFDPF, or SHPRS. An interest charge is payable in addition to the restored funds.

Compulsory Service — This is service for which the member should have made contributions while working, but did not, for whatever reason. The full amount, plus interest, must be paid before retirement benefits are granted.

Optional Service — This is service during a period when the member was given a choice of contributing or refraining from doing so. In order for the member to purchase this credit, the employer-school district must likewise make its contribution, and the employer is under no obligation to make payment.

Leave Of Absence — A member returning to work after a period of authorized leave may purchase service credit for the period involved. As with optional service, an employer contribution is required for this service to be granted, but the employer is under no obligation to make payment.

A member who has contributions not only at SERS, but also at State Teachers (STRS) or Public Employees (PERS) Retirement Systems is eligible to receive transferred credit from either or both of those systems. Any service which is not concurrent with (served at the same time as) SERS service will be included in determination of retirement benefits.

Early Retirement Credit

Employers may purchase up to five years of service credit for their eligible employees under an early retirement incentive plan authorized by 1983 legislation.

Adoption of a plan is optional and only employers may purchase such credit.

Benefit Calculation

The final average salary is the average of the member's highest three years of earnings while in the school service.

The benefit amount is calculated in this way:

The final average salary amount is multiplied by 2% to determine the value of a year of service credit. This value cannot be less than $86. If it is, $86 is used. The value is then multiplied by the number of years of service credit. This calculation yields the annual retirement benefit amount for a person who has reached age 65 or who has 30 years of service at retirement time. Effective October, 1988, the formula is 2.1% of final average salary.

For "early retirement" (the member is under age 65 or has less than 30 years of service) there is a correspon-ding percentage of decrease in the required benefit amount to allow for an extended period of retirement. Reduction factors are required by Ohio state law and set by the Board as recommended by the actuary.

Retirement Options

Should the retiring member wish to provide a benefit amount for a beneficiary upon the retiree's death, this may be done by the selection of one of the optional retirement plans provided for this purpose. Optional plans may be altered by the retired member should the beneficiary die before the retirant or in the event of a divorce.

Disability Retirement

A member prevented from performing regular duties on the job after incurring an injury or illness and before reaching age 60 may apply for monthly disability benefits. To qualify, the member must have at least 5 years service credit. In addition to the age and service requirements, the member must:

- Have developed the disabling illness or injury after last becoming a member of SERS;
- Have been recommended for approval by a SERS-sponsored medical review board;
- Have applied for benefits within 2 years of the last day of service with the school district;
- Not have withdrawn contributions or retired on service retirement.

The benefit is calculated in the same way as a regular service retirement benefit, except that no reduction is made for being under 65 years of age. SERS grants free credit for each year between the member's date of disability retirement and age 60. Benefits range from a minimum of 30% of final average salary to a maximum of 75% and are granted as long as the member remains disabled (subject to re-examination) or until death.

Death Benefits

The designated beneficiary of any SERS retirant will receive a $500 lump sum payment upon the retirant's death. If there is no beneficiary, payment is made to the person responsible for the burial expenses or to the retirant's estate.

Survivor Benefits

Qualified dependents of a deceased member may apply for monthly survivor benefits. Such benefits are payable if the member had at least 18 months of Ohio service credit, three of which were served in the 2.5 years prior to the member's death, or if the member was receiving a disability benefit.

If the member was eligible for service retirement but had not yet applied for benefits, the surviving spouse or other single dependent beneficiary of any age can draw a monthly lifetime benefit known as the joint survivor option. Duration of survivor benefits depends primarily on the age and marital status of the dependent(s).

Health Care and Other Benefits

Eligible benefit recipients receive medical insurance from SERS. Coverage for a spouse and/or dependent children can be provided by means of a monthly deduc-tion from the benefit. Coverage is offered by the selec-tion of the Aetna insurance company, for those persons in the Cleveland area, the Kaiser health plan, or for those in the Marion area, HealthOhio, Inc., or for those in the Central Ohio area, United Health Plan.

If the benefit recipient participates in Medicare B, the premium is paid by SERS and is added to the monthly benefit, up to $24.80 per month.

An optional prescription drug program is available to all benefit recipients of SERS and their dependents who are covered under the Aetna health care plan. Participants may either choose to obtain prescription drugs from their local pharmacy and receive reimbursement from the Aetna health care plan or they may elect to receive the drugs by mail from a licensed mail order pharmacy for a minimal fee per medication.

Members retiring after June 1, 1986 must have 10 or more years of service credit to qualify for the health care benefits.

Cost Of Living Increases

After 12 months on the benefit rolls, and each year thereafter, SERS retirants are entitled to an automatic cost of living increase of 3%, provided the Consumer Price Index shows a 3% gain over the previous year. This increase will be paid each year by the Retirement System until the accumulated excess cost of living points fall below 3%. In addition, the legislature has granted several permanent ad hoc increases to SERS retirees, the last such increase being in 1988.