

SERS

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

1937 — 1987

COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE YEAR ENDED JUNE 30, 1987

SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

45 North Fourth Street, Columbus, Ohio 43215

**COMPREHENSIVE ANNUAL
FINANCIAL REPORT**

For The Year Ended June 30, 1987

Prepared By SERS Staff

**Thomas R. Anderson,
Executive Director**

FIFTY
50
YEARS

THE SCHOOL EMPLOYEES RETIREMENT BOARD OF OHIO



Seated, left to right: Agnes F. O'Keefe, Orris E. Fields, Jr., Mary E. Kasunic. Standing, left to right: William D. Lenkey (State Auditor representative), Lowell B. Davis, Kathleen McManus (Attorney General representative), William A. Guy, Thomas R. Anderson.

President: Orris E. Fields, Jr., Wilmington, Ohio
Term expires June 30, 1991

Vice President: Lowell B. Davis, Euclid, Ohio
Term expires June 30, 1989

Employee-Member: William A. Guy, Columbus, Ohio
Term expires June 30, 1988

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

Retiree-Member: Agnes F. O'Keefe, Westerville, Ohio
Term expires June 30, 1988

Ex-Officio Member: Anthony J. Celebrezze, Jr.
Attorney General

Ex-Officio Member: Thomas E. Ferguson
Auditor of State

Thomas R. Anderson
Executive Director

Directors

F. Robert Coe
Management Information Services

John W. Frank
Controller

Robert E. Hartsook
Member Services

Paul M. Kubinsky
Investments

Rita M. Volpi
Planning and Development

ORGANIZATIONAL CHART

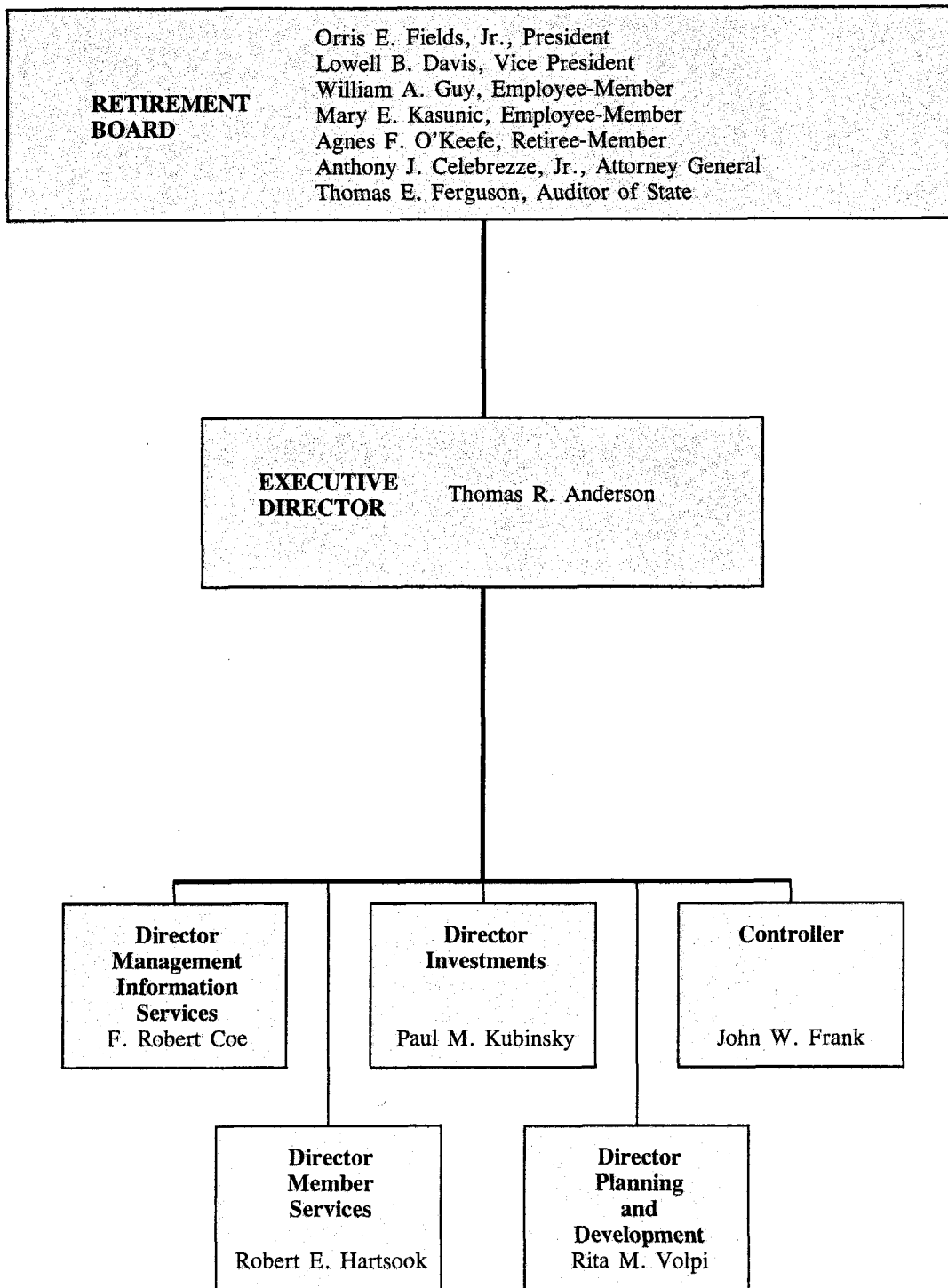


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SCHOOL EMPLOYEES RETIREMENT SYSTEM

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

January 15, 1988

President and Members of the Retirement Board: School Employees Retirement System

Dear President and Members:

During our fiftieth year of operations, we are pleased to submit herewith the Comprehensive Annual Financial Report of the School Employees Retirement System (SERS). This report contains statements of financial condition, results of operation of the benefit programs administered by the SERS, schedules of significant data regarding the operation of the Retirement System, and the opinion of our certified public accountant, Peat Marwick Main & Co. In addition, there is an Actuarial Section containing the opinion of our independent actuary, Gabriel, Roeder, Smith & Company, an Investment Section containing the investment report and schedules of portfolio activity, and the Plan Summary.

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 reader should note that the notes to the financial statements and the required supplementary information in this report have been prepared in accordance with the standards for disclosure established by Statement No. 5 of the Governmental Accounting Standards Board; accounting and financial reporting follow the principles identified by Statement No. 6 of the National Council on Governmental Accounting. Although SERS would not be required to conform to GASB Statement No. 5 until our report of June 30, 1988, we feel that the additional costs we have incurred as the result of earlier compliance are far outweighed by the benefits received.

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; discount and premium 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 safekeeping of member contributions and to provide a reasonable degree of reliability regarding all of our financial records.

Review of Operations

During the fiscal year 1987, SERS completed the installation (begun during fiscal 1986) of an automated portfolio management/accounting system. The system permits us to track portfolio performance on a current basis, and provides an analytical search and review of opportunities for portfolio growth and income, while taking into consideration the restrictions placed on our investment activities by Ohio statutes.

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, 1986.

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 GFOA to determine its eligibility for another certificate.

Financial Highlights

Revenues:

Revenues from employee and employer contributions were \$84.8 million and \$135.0 million, respectively, while income from investments totaled \$175.5 million. This represents an increase over 1986 of 7.4% for employee contributions, 3.5% for employer contributions and 2.6% for investment income. 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 1987 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 system, and administrative expenses. Expenses for

Financial Highlights (Continued)

fiscal 1987 totaled \$211.2 million, an increase of 15.1% over 1986 expenses. Increases in the number of benefit recipients, the average benefit paid, and health care expense combined to increase benefit expense by \$26.2 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 1987 resulted in an increase in fund balance of \$186.7 million. This increase is \$13.8 million less than the total increase in fund balance for the fiscal year 1986.

The actuarial valuation for funding purposes, dated June 30, 1987, reflects an unfunded accrued liability for basic benefits of \$892 million. This liability represents the difference between the computed actuarial accrued liability for basic benefits to be paid members and retirants (\$2,899 million) and total of valuation assets (\$2,007 million). The current basic benefit portion (9%) of the employer contribution rate of 14% is sufficient to amortize this unfunded accrued liability over 34 years.

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 previously mentioned funds in order to maximize both current income yield and long-term appreciation. For the fiscal year ended June 30, 1987, investments provided 44.1% of the System's total revenues while employee and employer contributions provided 21.3% and 34%, respectively; and other sources accounted for the remaining 0.6%.

At June 30, 1987, our investment portfolio was structured as follows: 43.6% in debt securities; 32.1% in equity securities; 12.1% in short-term investments; and 12.2% in real estate.

As we go to press, the market has recovered somewhat from its collapse of mid-October, but remains considerably below its high for 1987. Although it is likely that several years will be required for the market and the economy to fully recover, the System's promise to pay future benefits has not been endangered. 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 ex-

posure to risk. Recent market events, although significant in the short-term, are considered to be temporary market adjustments on a long-term actuarial basis, which endorses the basic soundness of our investment policy. 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 35 to 48 of this report.

Future Prospects

Post-retirement health care expenses continue to pose the major challenge facing SERS. As noted in the actuaries' report, the health care portion of the benefit plan is not funded on a level cost basis, and yearly expenses are now exceeding annual revenue allocated for the program.

A study of SERS' health insurance plan was commissioned by the Retirement Board. The report by Mercer-Meidinger-Hansen, Inc., outlined several options to put the health care program back on a level cost financing basis. In conjunction with this report, the Board adopted a plan of action to deal with future health care costs and preserve the program for members and retirees. The plan calls for graded vesting for insurance for future retirees, indexed deductible and spouse premium rates and an increase in employer funding. The additional funding is being sought in House Bill 290, now pending before the Ohio General Assembly.

Acknowledgements

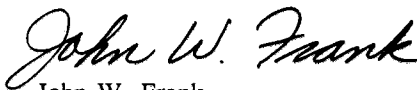
The preparation of this report is the result of the combined effort of the System's staff under the direction of the Retirement Board. It is intended to provide complete and reliable information as a basis for making management decisions, to disclose compliance with legal provisions, and as a means of 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
Executive Director



John W. Frank
Controller

Certificate of Achievement for Excellence in Financial Reporting

Presented to

School Employees
Retirement System, Ohio

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
June 30, 1986

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to governmental units and public employee retirement systems whose comprehensive annual financial reports (CAFR's) are judged to substantially conform to program standards.



Paul C. Blinson

President

Jeffrey L. Essler

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

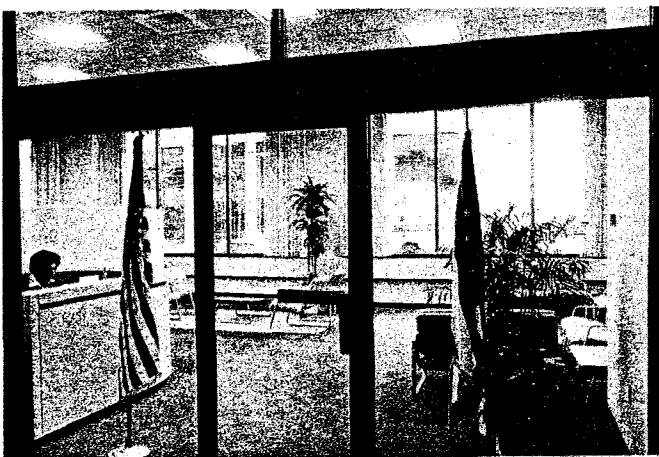
**Revenues by Source and
Expenses by Type**

Administrative Expenses

Investment Summary

**Cash Receipts and
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Fund Balance Accounts



SERS Lobby — 1950's and 1980's

AUDITORS' REPORT

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.
Two Nationwide Plaza
Columbus, OH 43215

Telephone 614 249 2300

Telecopier 614 249 2348

Honorable Thomas E. Ferguson
Auditor of State
State of OhioThe Retirement Board
School Employees Retirement System of Ohio:

We have examined the balance sheets of the School Employees Retirement System of Ohio as of June 30, 1987 and 1986 and the related statements of revenues, expenses and changes in fund balance and changes in financial position for the years then ended. Our examinations were 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 aforementioned financial statements present fairly the financial position of the School Employees Retirement System of Ohio at June 30, 1987 and 1986 and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Our examinations were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in Schedules I through VI is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the examinations of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Peat Marwick Main & Co.

December 31, 1987

Member Firm of
Klynveld Peat Marwick Goerdeler

BALANCE SHEETS

June 30, 1987 and 1986

	1987	1986
Assets:		
Cash (note 5)	\$ 1,363,890	—
Receivables:		
Contributions:		
Employers	67,797,230	66,889,712
Employees	6,561,885	7,355,788
State of Ohio subsidies	1,320,740	1,450,433
Accrued investment income	18,828,528	16,522,986
Investment sale proceeds	8,402,104	1,399,288
Total receivables	<u>102,910,487</u>	<u>93,618,207</u>
Investments, at cost (market \$2,372,149,374 and \$2,073,465,579, respectively)(notes 5 and 6)	<u>1,998,779,012</u>	<u>1,797,254,760</u>
Property and equipment, at cost (note 7)	8,437,301	8,257,608
Less accumulated depreciation	<u>2,042,793</u>	<u>1,825,153</u>
Net property and equipment	<u>6,394,508</u>	<u>6,432,455</u>
Other assets (note 9)	<u>914,484</u>	<u>556,264</u>
Total assets	<u>2,110,362,381</u>	<u>1,897,861,686</u>
Liabilities:		
Accounts payable and accrued expenses	548,061	473,130
Investment commitments payable	13,942,562	6,800,962
Health care benefits incurred and unpaid	14,411,475	9,588,913
Notes payable (note 8)	18,134,508	4,070,146
Other liabilities (note 9)	<u>342,309</u>	<u>687,710</u>
Total liabilities	<u>47,378,915</u>	<u>21,620,861</u>
Net assets available for benefits	<u>\$ 2,062,983,466</u>	<u>1,876,240,825</u>
Fund balance (note 3):		
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	2,004,405,988	1,824,518,398
Current employees:		
Accumulated employee contributions, including allocated investment income	524,262,202	475,218,163
Employer financed portion	<u>1,122,990,474</u>	<u>1,041,036,677</u>
Total pension benefit obligation	<u>3,651,658,664</u>	<u>3,340,773,238</u>
Unfunded pension benefit obligation payable	<u>(1,588,675,198)</u>	<u>(1,464,532,413)</u>
Total fund balance	<u>\$ 2,062,983,466</u>	<u>1,876,240,825</u>

See accompanying notes to financial statements.

**STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN FUND BALANCE**

Years ended June 30, 1987 and 1986

	1987	1986
Revenues:		
Contributions:		
Employers (note 4)	\$ 135,032,693	130,507,996
Employees	84,848,170	78,979,863
State of Ohio subsidies	1,320,740	1,450,433
Transfer from other Ohio systems	1,201,085	1,883,386
	<u>222,402,688</u>	<u>212,821,678</u>
Investment income:		
Interest and dividends	130,009,733	132,840,993
Real estate income, net (notes 6 and 8)	13,735,396	12,672,310
Net realized gain on sale of investments	33,263,851	34,461,091
Loss on options traded, net of option expense of \$3,612,723 in 1987 and \$15,577,985 in 1986	(1,515,780)	(8,858,718)
	<u>175,493,200</u>	<u>171,115,676</u>
Total revenues	<u>397,895,888</u>	<u>383,937,354</u>
Expenses:		
Benefits:		
Retirement	118,726,020	108,321,454
Disability	12,780,695	11,785,441
Survivor	8,958,365	8,360,152
Health care	51,728,280	37,499,209
Death	594,491	640,517
	<u>192,787,851</u>	<u>166,606,773</u>
Refund of employee contributions	10,267,756	9,058,221
Administrative expenses	6,599,526	5,863,596
Transfer to other Ohio systems	1,498,114	1,901,100
Total expenses	<u>211,153,247</u>	<u>183,429,690</u>
Net income	186,742,641	200,507,664
Fund balance, beginning of year	1,876,240,825	1,675,733,161
Fund balance, end of year	<u>\$ 2,062,983,466</u>	<u>1,876,240,825</u>

See accompanying notes to financial statements.

**STATEMENTS OF CHANGES
IN FINANCIAL POSITION**

Years ended June 30, 1987 and 1986

	1987	1986
Resources provided:		
From operations:		
Net income	\$ 186,742,641	200,507,664
Items which do not use working capital:		
Depreciation and amortization	489,615	364,061
Total resources provided from operations	187,232,256	200,871,725
Additions to notes payable	14,379,180	—
Other	31,513	51,679
Total resources provided	\$ 201,642,949	200,923,404
Resources used:		
Additions to property and equipment	483,181	590,713
Increase in other assets	358,220	290,444
Repayment of notes payable	314,818	174,535
Increase in working capital	200,486,730	199,867,712
Total resources used	\$ 201,642,949	200,923,404
Changes in components of working capital:		
Increase (decrease) in current assets:		
Cash	1,363,890	(428,419)
Receivables	9,292,280	(27,007,027)
Investments	201,524,252	196,046,970
	212,180,422	168,611,524
Increase (decrease) in current liabilities:		
Accounts payable and accrued expenses	74,931	21,951
Investment commitments payable	7,141,600	(32,652,336)
Health care benefits incurred and unpaid	4,822,562	1,096,079
Other liabilities	(345,401)	278,118
	11,693,692	(31,256,188)
Increase in working capital	\$ 200,486,730	199,867,712

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS
June 30, 1987 and 1986

(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	1987	1986
Local	376	376
City	192	192
County	86	86
Village	49	49
Vocational	49	49
Technical	13	13
College	2	2
Other	2	2
	<u>769</u>	<u>769</u>

Employee Members

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	<u>50,082</u>	<u>48,962</u>
Current employees		
Vested	52,884	53,062
Nonvested	36,650	35,248
Total	<u>89,534</u>	<u>88,310</u>

(B) Benefits — Members are eligible for normal retirement benefits upon reaching age 65 and earning 30 years of service credit. The benefit is equal to 2% of the member's final average salary, as defined, multiplied by the number of years credited service. Early retirement with reduced benefits is available upon reaching (a) age 55 and 25 years of service credit or (b) age 60 and 5 years of service credit.

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 eligible 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.

(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 in recognized on the accrual basis. Gains and losses on sales and exchanges of investments are recognized on the transaction date, subject to adjustment for market declines determined to be other than temporary.

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 fund-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)
Autos	3
Equipment and furniture	3-10
Building	40

NOTES TO FINANCIAL STATEMENTS (Continued)

(D) **Federal Income Tax Status** — During the years ended June 30, 1987 and 1986 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.

(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, 1987. The following significant assumptions were used in the actuarial valuation as of June 30, 1987:

Actuarial Assumption

Rate of return on investments	7.5% compounded annually, with a 2% additional rate of return annually July 1, 1987 through June 30, 1991.
Projected salary increases	4.5% compounded annually, attributable to inflation, additional increases ranging from .5% 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 spouses for health care.
Medicare	All recipients are eligible for Medicare on attainment of age 65 or immediately if retired for disability.

At June 30, 1987 the unfunded pension benefit obligations 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	<u>2,645,958,243</u>	<u>1,005,700,421</u>	<u>3,651,658,664</u>
Net assets available for benefits, at cost (market \$2,436,353,828)	<u>1,930,344,027</u>	<u>132,639,439</u>	<u>2,062,983,466</u>
Unfunded pension benefit obligation	<u>\$ 715,614,216</u>	<u>873,060,982</u>	<u>1,588,675,198</u>

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 9% to basic retirement benefits and 5% to health care benefits. The adequacy of employer contribution rates is determined annually 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 pension benefit obligation, for basic retirement benefits, as of June 30, 1987 over 34 years. Employer contribution rates for health care benefits are not sufficient to fund current health care benefits on a cash basis, or to provide level cost financing of the health care benefit.

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 \$132,262,000 and \$83,461,000, respectively in 1987.

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 investment 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 value of real estate is based upon appraisals. Market value of the investment in the commingled real estate funds is based on information provided by the fund managers.

A summary of investments as of each June 30 follows:

	1987		1986	
	Carrying Value	Market Value	Carrying Value	Market Value
Corporate and government bonds and obligations:				
Corporate bonds	\$ 153,815,561	\$ 151,533,710	\$ 129,100,975	\$ 138,459,333
Utility bonds	104,247,894	99,511,720	122,300,604	126,451,104
United States Government and Agency obligations	184,783,012	191,525,812	182,867,906	193,788,207
Canadian Government obligations	41,515,713	41,927,019	—	—
	<u>\$ 484,362,180</u>	<u>\$ 484,498,261</u>	<u>\$ 434,269,485</u>	<u>\$ 458,698,644</u>
First mortgage loans and mortgage-backed securities:				
GNMA modified pass-through mortgage-backed securities	161,277,011	167,109,246	198,377,910	208,409,853
FHLMC mortgage-backed participation certificates	151,751,049	153,305,405	130,831,237	134,889,415
FHA/VA guaranteed single-family mortgages	362,232	325,178	444,243	407,874
HUD guaranteed mortgages	1,161,515	1,149,150	1,604,413	1,590,604
FHA guaranteed project mortgage	3,370,140	2,348,482	3,441,641	2,533,134
Commercial and industrial mortgages	69,430,554	76,040,000	73,483,903	78,917,003
	<u>\$ 387,352,501</u>	<u>\$ 400,277,461</u>	<u>\$ 408,183,347</u>	<u>\$ 426,747,883</u>
Common and preferred stocks	\$ 642,075,170	\$ 965,655,385	\$ 535,014,725	\$ 732,997,117
Short-term investments — Commercial paper	\$ 241,794,481	\$ 242,669,718	\$ 219,290,092	\$ 219,759,540
Real estate, land and buildings	132,141,792	154,494,981	99,239,296	122,362,196
Commingled real estate funds	91,919,508	104,773,967	86,257,815	98,204,826
Capital development fund — limited partnership	19,133,380	19,779,601	15,000,000	14,695,373
Total investments	<u>\$ 1,998,779,012</u>	<u>\$ 2,372,149,374</u>	<u>\$ 1,797,254,760</u>	<u>\$ 2,073,465,579</u>

NOTES TO FINANCIAL STATEMENTS (Continued)

(6) Real Estate and Leases

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

	1987	1986
Land	\$ 27,083,650	18,413,656
Buildings	<u>117,230,037</u>	<u>91,740,498</u>
	144,313,687	110,154,154
Less accumulated depreciation	<u>12,171,895</u>	<u>10,914,858</u>
	<u>\$ 132,141,792</u>	<u>99,239,296</u>

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, 1987:

Year ending June 30	
1988	\$ 11,782,842
1989	10,226,598
1990	8,495,577
1991	7,142,159
Future lease revenues	<u>54,626,906</u>
Total minimum future lease revenues	<u>\$ 92,274,082</u>

Depreciation expense on the above real estate aggregated \$2,871,392 and \$2,446,676 in 1987 and 1986, 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:

	1987	1986
Land	\$ 1,178,055	1,178,055
Building and improvements	3,902,816	3,731,436
Furniture and equipment	<u>3,356,430</u>	<u>3,348,117</u>
	8,437,301	8,257,608
Less accumulated depreciation	<u>2,042,793</u>	<u>1,825,153</u>
	<u>\$ 6,394,508</u>	<u>6,432,455</u>

(8) Notes Payable

Notes payable at June 30, consists of the following:

	1987	1986
10.75% mortgage note payable, interest due monthly with principal due September 1, 1990.....	\$ 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.....	3,865,615	—
10.25% (variable beginning May 1, 1990) 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....	2,688,160	—
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.....	1,300,067	—
10% unsecured notes payable, interest due quarterly with principal due May 31, 1991.....	2,788,390	2,788,390
6.5% unsecured note payable, due in monthly installments of \$35,758, plus interest, through December 17, 1989.....	992,276	—
9.5% unsecured notes payable, due in monthly installments of \$31,457, plus interest, through September 1, 1990.....	—	1,281,756
	<u>\$ 18,134,508</u>	<u>4,070,146</u>

The mortgage notes payable are collateralized by investments in real estate properties with a net book value of \$20,295,000 at June 30, 1987. The approximate aggregate maturities of notes payable for the five years ending June 30, 1992 are as follows: 1988, \$433,991; 1989, \$465,439; 1990, \$281,772; 1991, \$9,367,315; and 1992, \$87,452. Total interest expense on the above notes aggregated \$1,165,805 and \$396,614 in 1987 and 1986, 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). Under this 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, 1987, market value of investments in the Program totaled \$342,309. 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

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, 1987 was \$2,816,927; SERS' total payroll was \$2,923,857.

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 pro-

vides 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. SERS and employee contributions for the year ended June 30, 1987 were \$392,961 and \$239,439, respectively; these contributions represented 13.95% and 8.5% of covered employee payroll, respectively.

PERS uses the entry age normal actuarial cost method of valuation in determining the actuarial accrued liability. The actuarial accrued liability (excluding the effect of future salary increases) at December 31, 1985 was \$17.1 billion. PERS' valuation assets and unfunded actuarial accrued liability at that date were \$11.1 billion and \$6.0 billion, respectively.

(11) 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 financial statements.

(12) Subsequent Event

As reflected in the balance sheets, market value of investments was in excess of cost by \$373,370,862 at June 30, 1987 and \$276,210,819 at June 30, 1986, of which \$323,716,296 and \$222,411,551, respectively was applicable to common stocks, preferred stocks, corporate and government bonds and obligations. At October 31, 1987, the market value of common stocks, preferred stocks, corporate and government bonds and obligations exceeded cost by \$114,195,285.

ANALYSIS OF FUNDING PROGRESS

Schedule I

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)
1984	\$1,488,850,477	\$2,636,240,463	57.5%	\$1,147,389,986	\$737,347,635	155.6%
1985	1,675,733,161	2,913,480,931	57.5	1,237,747,770	804,230,073	153.9
1986	1,876,240,825	3,340,773,238	56.2	1,464,532,413	869,111,274	168.5
1987	2,062,983,466	3,651,658,664	56.5	1,588,675,198	931,385,997	170.6

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.

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

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

See accompanying auditors' report.

ADMINISTRATIVE EXPENSES
 Schedule III

Years ended June 30, 1987 and 1986

	1987	1986
Personal services:		
Salaries	\$ 2,923,857	2,719,708
Retirement contributions	392,961	372,517
Insurance	267,210	233,483
Total personal services	<u>3,584,028</u>	<u>3,325,708</u>
Professional services:		
Investment counsel	182,581	164,225
Medical	166,583	174,992
Technical and actuarial	151,917	161,448
Computer support services	582,605	120,975
Auditing	54,043	71,585
Employee training	67,507	39,711
Total professional services	<u>1,205,236</u>	<u>732,936</u>
Communications:		
Postage	238,716	236,911
Telephone	49,133	45,180
Retirement counselling services	13,785	11,719
Printing and publications	74,801	29,417
Total communications	<u>376,435</u>	<u>323,227</u>
Other services and charges:		
Equipment repairs and maintenance	209,951	271,641
Building occupancy and maintenance	228,374	211,053
Interest on notes payable (Non-investment)	88,476	146,672
Supplies	99,097	163,804
Transportation and travel	121,166	101,279
Equipment rental	82,767	78,333
Surety bonds and insurance	46,271	22,300
Memberships and subscriptions	27,492	26,526
Retirement study commission	20,617	19,804
Miscellaneous	20,001	16,592
Total other services and charges	<u>944,212</u>	<u>1,058,004</u>
	<u>6,109,911</u>	<u>5,439,875</u>
Depreciation (Non-investment):		
Furniture and equipment	391,267	330,329
Building	98,348	93,392
Total depreciation	<u>489,615</u>	<u>423,721</u>
Total administrative expense	<u>\$ 6,599,526</u>	<u>5,863,596</u>

See accompanying auditors' report.

INVESTMENT SUMMARY

Schedule IV

Year Ended June 30, 1987

	1986				1987		% of Total Market Value
	Carrying Value	Market Value	Purchases	Sales and Redemptions	Carrying Value	Market Value	
Corporate and govern- ment 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 fund — limited partnership	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%

Year Ended June 30, 1986

	1985				1986		% of Total Market Value
	Carrying Value	Market Value	Purchases	Sales and Redemptions	Carrying Value	Market Value	
Corporate and govern- ment bonds and obligations	\$ 435,246,436	\$ 441,059,863	\$ 362,673,874	\$ (363,650,825)	\$ 434,269,485	\$ 458,698,644	22.1%
First mortgage loans and mortgage-backed securities	391,416,259	402,858,045	127,415,263	(110,648,175)	408,183,347	426,747,883	20.6
Common stocks	389,537,785	438,176,482	245,035,961	(99,559,021)	535,014,725	732,997,117	35.4
Short-term investments	203,987,857	204,472,794	3,439,573,237	(3,424,271,002)	219,290,092	219,759,540	10.6
Real estate, land and buildings	101,039,956	121,071,000	646,016	(2,446,676)	99,239,296	122,362,196	5.9
Commingled real estate funds	71,079,497	81,453,847	15,178,318	—	86,257,815	98,204,826	4.7
Capital development fund — limited partnership	8,900,000	8,853,324	6,100,000	—	15,000,000	14,695,373	.7
Total investments	\$ 1,601,207,790	\$ 1,697,945,355	\$ 4,196,622,669	\$ (4,000,575,699)	\$ 1,797,254,760	\$ 2,073,465,579	100.0%

See accompanying auditors' report.

CASH RECEIPTS AND DISBURSEMENTS

Schedule V

Years ended June 30, 1987 and 1986

	1987	1986
Cash balance at beginning of year	\$ —	428,419
Receipts:		
Contributions:		
Employers	134,125,175	124,194,955
Employees	85,642,073	78,490,850
State of Ohio subsidies	1,450,433	1,578,723
Transfers from other Ohio systems	1,201,085	1,883,386
	<u>222,418,766</u>	<u>206,147,914</u>
Investments:		
Investments matured and sold	3,760,955,361	4,028,913,320
Investment income	173,187,658	176,458,846
	<u>3,934,143,019</u>	<u>4,205,372,166</u>
Proceeds from notes payable	14,379,180	—
Total Receipts	<u>4,170,940,965</u>	<u>4,411,520,080</u>
Disbursements:		
Benefits:		
Retirement	118,726,020	108,321,454
Disability	12,780,695	11,785,441
Survivor	8,958,365	8,360,152
Health Care	46,905,718	36,403,130
Death	594,491	640,517
Total benefits	<u>187,965,289</u>	<u>165,510,694</u>
Refund of employee contributions	10,267,756	9,058,221
Administrative expenses	6,524,595	5,841,645
Investments purchased	3,962,340,829	4,229,275,005
Transfers to other Ohio systems	1,498,114	1,901,100
Other, net	980,492	361,834
Total disbursements	<u>4,169,577,075</u>	<u>4,411,948,499</u>
Cash balance at end of year	<u>\$ 1,363,890</u>	<u>—</u>

See accompanying auditors' report.

FUND BALANCE ACCOUNTS

Schedule VI

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 fund into the Annuity and Pension Reserve Fund and the Survivors' 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 transferred from the Guarantee Fund to cover expenses incurred.

A summary of the fund balance accounts follows:

FUND BALANCE ACCOUNTS (Continued)
Schedule VI (Continued)

	Year Ended June 30, 1987						
	Employees' Savings Fund	Employers' Trust Fund	Annuity and Pension Reserve Fund	Survivors' Benefit Fund	Guarantee Fund	Expense Fund	Total
Fund balance at beginning of year	\$ 475,218,163	(287,186,788)	1,588,730,532	99,478,918	—	—	1,876,240,825
Changes for the year:							
Contributions:							
Employers	—	135,032,693	—	—	—	—	135,032,693
Employees	84,848,170	—	—	—	—	—	84,848,170
State of Ohio subsidies	—	1,320,740	—	—	—	—	1,320,740
Investment income	—	—	—	—	175,493,200	—	175,493,200
Transfer from other Ohio systems	—	—	1,198,987	2,098	—	—	1,201,085
Benefits:							
Retirement	—	—	(118,726,020)	—	—	—	(118,726,020)
Disability	—	—	(12,780,695)	—	—	—	(12,780,695)
Survivor	—	—	—	(8,958,365)	—	—	(8,958,365)
Health Care	—	—	(51,728,280)	—	—	—	(51,728,280)
Death	—	—	(594,491)	—	—	—	(594,491)
Refunds of employee contributions	(10,267,756)	—	—	—	—	—	(10,267,756)
Administrative expenses	—	—	—	—	—	(6,599,526)	(6,599,526)
Transfers to other Ohio systems	—	—	(1,465,856)	(32,258)	—	—	(1,498,114)
Other transfers	(25,536,375)	(214,005,289)	388,904,096	19,531,242	(175,493,200)	6,599,526	—
Net changes	49,044,039	(77,651,856)	204,807,741	10,542,717	—	—	186,742,641
Fund balance at end of year	\$ 524,262,202	(364,838,644)	1,793,538,273	110,021,635	—	—	2,062,983,466

	Year Ended June 30, 1986						
	Employees' Savings Fund	Employers' Trust Fund	Annuity and Pension Reserve Fund	Survivors' Benefit Fund	Guarantee Fund	Expense Fund	Total
Fund balance at beginning of year	\$ 432,528,863	(268,594,919)	1,413,312,555	98,486,662	—	—	1,675,733,161
Changes for the year:							
Contributions:							
Employers	—	130,507,996	—	—	—	—	130,507,996
Employees	78,979,863	—	—	—	—	—	78,979,863
State of Ohio subsidies	—	1,450,433	—	—	—	—	1,450,433
Investment income	—	—	—	—	171,115,676	—	171,115,676
Transfer from other Ohio systems	—	—	1,857,400	25,986	—	—	1,883,386
Benefits:							
Retirement	—	—	(108,321,454)	—	—	—	(108,321,454)
Disability	—	—	(11,785,441)	—	—	—	(11,785,441)
Survivor	—	—	—	(8,360,152)	—	—	(8,360,152)
Health Care	—	—	(37,499,209)	—	—	—	(37,499,209)
Death	—	—	(640,517)	—	—	—	(640,517)
Refunds of employee contributions	(9,058,221)	—	—	—	—	—	(9,058,221)
Administrative expenses	—	—	—	—	—	(5,863,596)	(5,863,596)
Transfers to other Ohio systems	—	—	(1,875,147)	(25,953)	—	—	(1,901,100)
Other transfers	(27,232,342)	(150,550,298)	333,682,345	9,352,375	(171,115,676)	5,863,596	—
Net changes	42,689,300	(18,591,869)	175,417,977	992,256	—	—	200,507,664
Fund balance at end of year	\$ 475,218,163	(287,186,788)	1,588,730,532	99,478,918	—	—	1,876,240,825

See accompanying auditors' report.

AUDITOR OF STATE'S LETTER



THOMAS E. FERGUSON

AUDITOR OF STATE
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SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO
45 North 4th Street
Columbus, Ohio 43215

We have examined the Financial Statement and Schedules, (With Auditors Report Thereon), of the School Employees Retirement System of Ohio as prepared by Peat Marwick Main & Co. CPAs, for the period ending June 30, 1986 and 1987. Based upon this examination, we have accepted these Statements and Report in lieu of the examination required by Section 117.10 of the Revised Code. The Auditor of State has not examined the underlying documentation supporting these Statements and Report 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, policies, procedures, and guidelines of the Auditor Of State, and local resolutions/ordinances.

THOMAS E. FERGUSON
Auditor Of State

January 15, 1988

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Actuarial Section

Actuaries' Letter

Statement of Actuaries



The old and the new in data processing.

ACTUARIES' LETTER

GABRIEL, ROEDER, SMITH & COMPANY
Actuaries & Consultants

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December 31, 1987

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, 1987. 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 employer contribution rate is 14% of pay. An SERS policy decision is now allocating 9% to basic benefits and 5% to health care benefits.

On the basis of the 1987 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.

However, the financial condition of health care benefits is quite different. The 5% contribution allocated to health care benefits is not sufficient to cover either current cash benefit outgo, 6.0% of pay, or to provide level cost financing of the health care benefits.

To provide level cost financing of the health care benefits requires some combination of increased contributions and/or decreased health benefits.

Respectfully submitted,

 
Gerald B. Sonnenschein Richard G. Roeder

RGR:ct

STATEMENT OF ACTUARIES
(Valuation as of June 30, 1987)

Actuarial Cost Method and Assumptions

Employer contribution rates are for basic benefits 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 as of June 30, 1987 over 34 years.

The present employer contribution rate of 14% of pay is allocated between basic benefits, 9% of pay, and health benefits, 5% of pay. The 5% contribution allocated to health benefits is neither sufficient to cover current health cash benefits, nor is it sufficient to provide level cost financing of the health benefits.

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, 1987 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 \$6,701,353.

The following significant assumptions were used in the actuarial valuations as of June 30, 1987:

- (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, 1987 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 members are shown for sample ages in the following table.

Sample Age	Increase Next Year		Total
	Merit & Seniority	Base (Economy)	
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

Sample Ages	Percent of Eligible Active Members Retiring Within Next Year	
	Men	Women
50	15%	12%
55	10	18
60	10	25
65	40	35
70	50	50
75	100	100

- (5) post-retirement mortality life expectancies 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;

STATEMENT OF ACTUARIES (Continued)
(Valuation as of June 30, 1987)

(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

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 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	
	1987	1986
Benefit Recipient below age 65	\$ 202.13	\$ 169.86
Spouse below age 65*	109.67	83.38
Benefit recipient above age 65 and eligible for Medicare	42.04	35.33
Spouse above age 65 and eligible for Medicare*	26.07	19.35
Mail order prescription service	19.40	14.55

* System portion.

Medicare Part B Premium: \$24.80 per month assumed to be effective January 1, 1988, from \$17.90. (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.

Health Care Benefits

Initially, beginning in 1974, 0.75% was the contribution rate established for health care benefits, and included in a total employer rate then 12.50%. Health care contribution rates have been increased at various times since 1974. The current employer rate of 14% is not sufficient to provide level cost financing of the health care benefits, especially in light of the low salary base of the contributing members. A combination of increased contributions and/or decreased health benefits is necessary to provide level cost financing.

STATEMENT OF ACTUARIES (Continued)
(Valuation as of June 30, 1987)

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 rendered, but the resulting monthly cash benefit may not be payable

until years in the future. Accrued liabilities are the result of complex mathematical calculations, which are made annually by the plan's actuaries—specialists who make such calculations. The results of the computed actuarial accrued liabilities, using the entry age normal actuarial cost method, are listed in the following schedule.

Actuarial Accrued Liabilities June 30, 1987

Present Value Of	Actuarial Accrued Liabilities	
	Health Care	Basic Benefits
Future monthly benefits and death benefits to present retirants and survivors	\$ 562,163,872	\$ 1,341,396,036
Monthly benefits and refunds to present inactive members	56,892,603	43,953,477
Service allowances and health care benefits to present active members	408,222,697	1,408,533,370
Disability allowances to present active members	7,653,404	38,356,510
Death-after-retirement benefit (\$500) on behalf of present active members		1,676,335
Survivor benefits on behalf of present active members who die before retiring	16,039,783	39,182,781
Refunds of member contributions of present active members		26,267,969
Benefits for present active members	431,915,884	1,514,016,965
Benefits For Present Covered Persons	\$ 1,050,972,359	\$ 2,899,366,478

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 1987

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

**Retirants and Beneficiaries Added To
and Removed From Rolls, 1978 to 1987**

Fiscal Year Ended June 30	Additions During Year	Deletions During Year	Number at End of Year
1978	2,380	627	25,093
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

STATEMENT OF ACTUARIES (Continued)
(Valuation as of June 30, 1987)

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 benefit 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)					Portion of Accrued Liabilities Covered by Assets		
June 30	(1) Member Contributions	(2) Retired Lives	(3) Present Members (Employer Portion)	(4) Valuation 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

HEALTH CARE BENEFITS (\$ In Millions)					Portion of Accrued Liabilities Covered by Assets		
June 30	(1) Member Contributions	(2) Retired Lives	(3) Present Members (Employer Portion)	(4) Valuation 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

* Revised Financial Assumptions

Statistical Section



**Asset Coverage of
Accrued Liabilities**

Benefit Expenses by Type

**Number of Benefit
Recipients by Type**

**Number of
Participating Employers**

Retirement Averages



Keeping track of member records—then and now.

**COMPARATIVE SUMMARY OF ACCRUED LIABILITIES
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

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, (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 7 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
1978	\$ 39,821,999	\$ 3,958,026	\$ 4,500,933	\$ 6,772,412	\$ 7,941,967
1979	44,834,588	4,743,472	4,855,008	11,290,894	10,656,975
1980	49,938,156	5,619,031	5,221,125	15,809,333	10,003,023
1981	55,597,625	6,328,456	5,567,213	17,084,324	8,428,101
1982	64,708,104	7,294,601	6,240,292	23,460,414	10,340,929
1983	75,497,557	8,076,576	6,756,619	28,959,381	9,160,974
1984	85,444,144	9,270,155	7,389,851	29,153,910	8,418,007
1985	96,910,985	10,527,898	8,004,136	30,778,698	8,937,228
1986	108,321,454	11,785,441	8,360,152	37,499,209	9,698,738
1987	118,726,020	12,780,695	8,958,365	51,728,280	10,862,247

NUMBER OF BENEFIT RECIPIENTS BY TYPE
Last Ten Years

Table III

Year Ending June 30	Service	Disability	Survivor	Total
1978	21,233	1,716	2,144	25,093
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

NUMBER OF PARTICIPATING EMPLOYERS
Last Ten Years

Table IV

Year	Total	Counties	Locals	Cities	Villages	Colleges	Technical	Vocational	Other
1978	769	87	381	187	49	2	13	49	1
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

RETIREMENT AVERAGES
Last Ten Years

Table V

Service Retirement

Year Ending June 30	Service Credit	Monthly Amount	Age	Salary
1978	15.969	\$184.01	63.64	\$ 6,265.35
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

Disability Retirement

Year Ending June 30	Service Credit	Monthly Amount	Age	Salary
1978	12.239	\$243.79	52.63	\$ 6,373.75
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

Investment Section



1966

**Investment Portfolio
Distribution**

Investment Report

Portfolio Summary

Schedules

Exhibits

Investment Policy

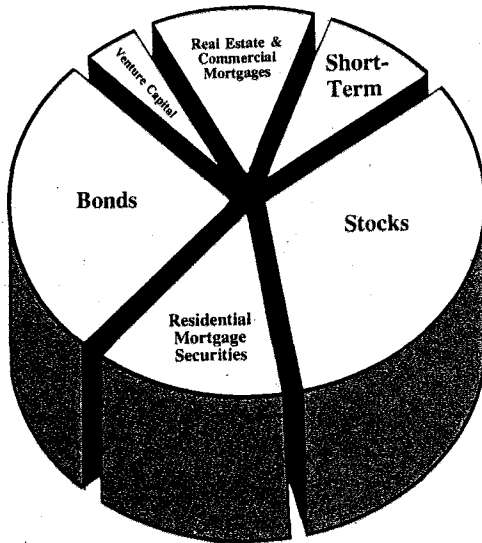


1981

Building the old and new SERS offices.

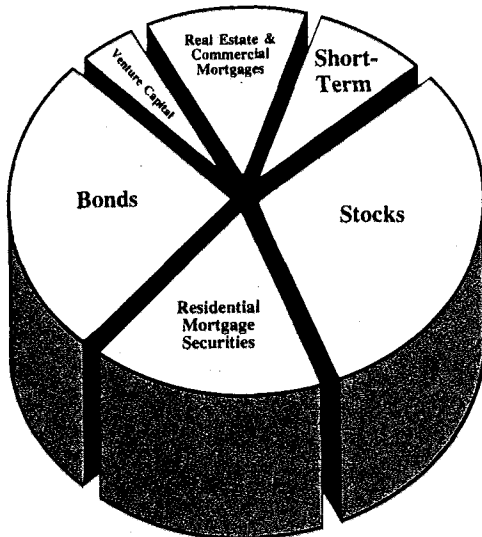
INVESTMENT PORTFOLIO DISTRIBUTION

June 30, 1987



- 23.7% Bonds
- 15.9% Residential Mortgage Securities
- 32.7% Stocks
- 14.7% Real Estate & Commercial Mortgages
- 12.0% Short-Term
- 1.0% Venture Capital

June 30, 1986



- 23.9% Bonds
- 18.8% Residential Mortgage Securities
- 29.5% Stocks
- 14.9% Real Estate & Commercial Mortgages
- 12.1% Short-Term
- 0.8% Venture Capital

INVESTMENT REPORT

Last year the U.S. economy continued to grow for the fourth year in a row, although the growth was again very slow (approximately +2.7%). Inflation increased to +3.8%, but it was still very moderate. There were areas of strength in the economy this year and areas of weakness much like last year. The strength this year came more from Industrial America rather than from the U.S. consumer. We have seen capacity utilization increase to over 80% and unemployment decrease to 6.1%. Both of these statistics indicate strength in the U.S. economy for the remainder of 1987 and into 1988. The final stage of the Tax Reform Act of 1986 will go into effect in 1988 and it should also promote further growth in the U.S. economy through the first half of 1988. All of these trends should provide a good atmosphere for common stocks to perform well during the coming year.

There are, however, several matters which will adversely affect the U.S. in the months ahead. The U.S. foreign trade deficit is still very high and even though the U.S. dollar has depreciated in price versus the Japanese yen and the German mark, improvement in the trade deficit has been very slow. The U.S. government's spending deficit also remains very high. Congress has found it difficult to cut government spending further and the President seems unwilling to allow a tax increase. Consequently the U.S. Treasury will be forced to sell a large amount of bonds to raise the money necessary to fund spending programs. This will probably keep pressure on interest rates and prevent them from declining too much during the coming year.

The Fund grew in market value from \$2.07 billion in June, 1986 to \$2.37 billion in June, 1987. During the past year the percent of the fund invested in equities grew from 29.5% to 31.9% while the percent invested in fixed-income securities decreased from 42.7% to 39.9%. This shift in asset allocation benefited the fund during the past year since equities returned 22.7% while fixed-income securities returned only 6.2%. The Fund as a whole returned 12.7% for the year and it has had an average annual return of 18.8% for each of the last 5 years.

As mentioned above, the equity portfolios experienced a great amount of growth during the year. The Core Equity Fund increased in market value from \$615 million to \$788 million and the Internal Equity Fund increased from \$119 million to \$178 million during the year. Both equity portfolios continued to perform very well during the year and for

the five year period they had an average annual return of 25.3% per year. During the year another portfolio was started by staff. This portfolio invests in securities which are convertible into common stock. The portfolio was started as a defensive measure to protect the Fund when the business cycle starts to decline and equity prices start down.

The percentage of the Fund invested in fixed-income securities declined during the past year, from 42.7% to approximately 40%. Over the last five years these securities have had an average annual return of 18.7% per year. Staff continues to emphasize high quality bonds and mortgage-backed securities in the fixed-income portfolios. With the likelihood that inflation will increase modestly over the next year and that the U.S. economy will continue to grow slowly, it is not anticipated that interest rates will decline too much from current levels. New cash committed to the fixed-income portfolios will be committed to intermediate maturity securities; and longer maturity bonds will be traded for shorter maturity bonds when possible, so that the average maturity of the fund can be reduced further.

The Real Estate portfolio continued to represent approximately 15% of the total fund. The real estate assets of the Fund continue to perform well and have had an average annual return of 11.4% for each of the last five years. The real estate market in general continues to be overbuilt. However, there are selected areas in the U.S. in which real estate properties continue to perform very well, such as Washington D.C., Boston and New York City. The Fund has taken a very conservative posture on real estate since late in 1986, and until the condition of the real estate market in general improves, we will be very selective in our purchases of real estate properties.

For the coming year we expect the U.S. economy to continue growing slowly, probably in the 3.0% to 3.5% area. However we do expect inflation to increase modestly to 4.0% or 4.5% by year-end 1987 and approximately 5.0% by mid-1988. We do not foresee a recession during 1988. Based on this outlook we intend to continue to invest new cash coming into the Fund in equities on market weakness and in shorter maturity bonds or mortgage-backed securities. As mentioned previously, real estate purchases will be made very selectively during the period. We anticipate that by June 1988 the Fund will be invested in the following manner; 35% in equities; 40% in fixed-income securities; 15% in real estate; and 10% in cash equivalents.

PORTFOLIO SUMMARY

Schedule I

Investment Category	June 30, 1987			June 30, 1986		June 30, 1985	
	Par Value	Book Value	Market Value	Market Value	Market Value	Market Value	Market Value
U.S. Government & Agency Bonds	\$ 184,019,200	\$ 184,783,012	\$ 191,525,812	\$ 193,788,207	\$ 193,020,218		
Corporate Bonds	249,700,000	246,586,386	239,370,132	263,939,187	239,252,848		
Canadian Bonds	43,000,000	41,515,713	41,927,019	—	8,786,797		
G.N.M.A./FHLMC/FHA/VA/HUD Mortgages & Mortgage-Backed Pass-Thrus	322,474,892	317,921,947	324,237,461	347,830,880	305,355,282		
Common, Preferred Stocks and Convertible Securities	653,799,170	653,552,239	977,330,683	733,968,367	438,176,482		
Investment Real Estate (Including Equity Participating Mortgages)	291,635,745	279,463,849	318,333,948	275,228,024	273,919,605		
Commercial & Industrial Mortgages	14,028,005	14,028,005	16,975,000	24,256,001	22,990,162		
Venture Capital	19,133,380	19,133,380	19,779,601	14,695,373	11,971,167		
Short-Term Investments	243,425,000	241,794,481	242,669,718	219,759,540	204,472,794		
	<u>\$ 2,021,215,392</u>	<u>\$ 1,998,779,012</u>	<u>\$ 2,372,149,374</u>	<u>\$ 2,073,465,579</u>	<u>\$ 1,697,945,355</u>		

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	22.7%	27.7%	25.3%
Bond Portfolio	4.2	18.7	18.4
Residential Mortgage Portfolio	9.0	19.8	19.2
Short-Term Investment Portfolio	6.4	7.9	8.6
Total Fund	12.7%	19.7%	18.8%

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 11.4% annually.

QUALITY OF COMMON STOCKS (By Market Value)

Schedule III

Quality Rating	Percent of Stock
A+	24.3%
A	19.3
A-	31.5
B+	9.8
B	1.5
B-	12.0
C	0.4
D	--
Not Rated	1.2

Of the stocks owned by the System, the majority fall within the top four quality grades as rated by Standard and Poor's Corporation with respect to the relative stability and growth of earnings and dividends. The 1.2 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

DIVIDEND GROWTH FROM COMMON AND PREFERRED STOCKS (Excluding Convertible Bonds)

Schedule IV

Fiscal Year Ended	Dividends Received*	Par Value
June 1987	\$ 26,982,310	\$ 637,544,643
June 1986	20,867,916	535,014,725
June 1985	17,328,134	389,537,785
June 1984	14,845,987	353,050,884
June 1983	13,187,649	272,728,121

* Cash Basis

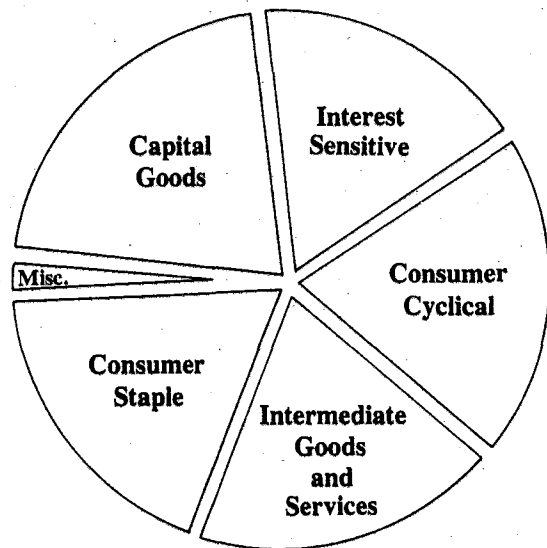
TWENTY LARGEST COMMON STOCK HOLDINGS (By Market Value)

Schedule V

Stock	Shares	Market Value	% of Stock Portfolio
International Business Machines Corp.	244,900	\$ 39,796,250	4.14%
Exxon Corp.	349,200	32,562,900	3.39
General Electric Co.	386,200	20,999,625	2.19
Eastman Kodak Co.	200,800	17,293,900	1.80
DuPont (E.I) De Nemours & Co.	114,700	13,764,000	1.43
Minnesota Mining & Mfg. Co.	167,200	11,850,300	1.23
Wal Mart Stores, Inc.	172,200	11,645,025	1.21
American Telephone & Telegraph Co.	385,100	10,638,388	1.11
Hewlett-Packard Co.	167,900	10,262,888	1.07
General Motors Corp.	117,300	9,691,913	1.01
Pfizer Inc.	134,600	9,691,200	1.01
Westinghouse Electric Corp.	148,700	9,461,038	0.98
Ford Motor Co.	89,600	8,870,400	0.92
American International Group, Inc.	121,200	8,590,050	0.89
Amoco Corp.	95,700	8,373,750	0.87
Merck & Co., Inc.	48,800	8,320,400	0.87
American Home Products Corp.	92,500	7,874,063	0.82
Chevron Corp.	121,500	7,533,000	0.78
Phillip Morris Cos., Inc.	83,000	7,438,875	0.77
Dow Chemical Co.	85,800	7,389,525	0.77

Exhibit 1

DIVERSIFICATION OF COMMON STOCKS (By Market Value)



20.4% Capital Goods
 20.1% Consumer Cyclical
 19.2% Intermediate Goods and Services
 19.1% Consumer Staple
 17.5% Interest Sensitive
 3.7% Miscellaneous

Exhibit 2

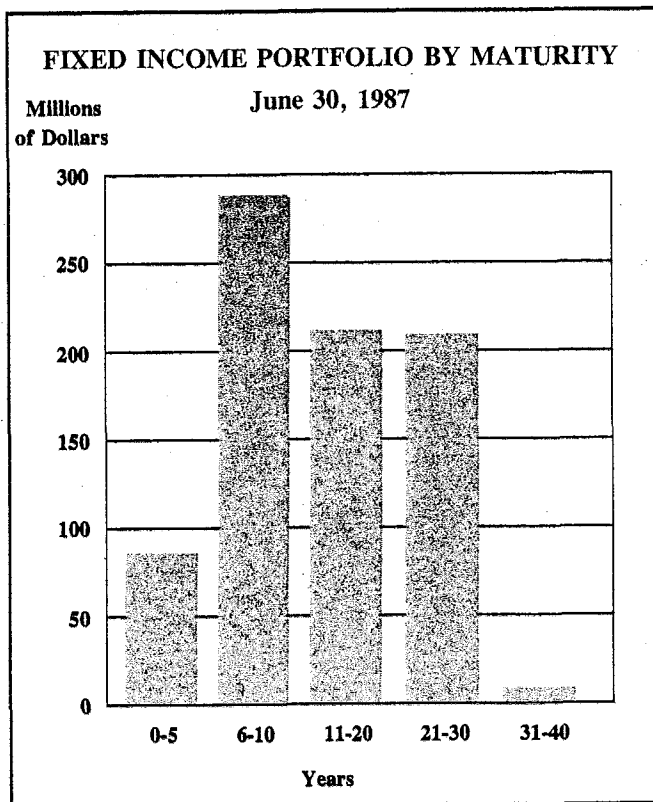


Exhibit 3

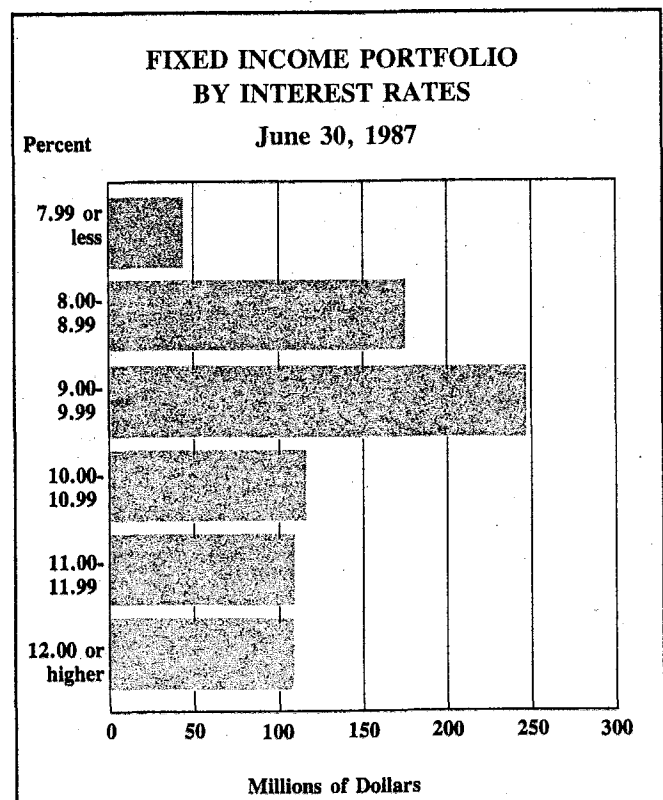


Exhibit 4

BOND PORTFOLIO BY SECTOR
June 30, 1987

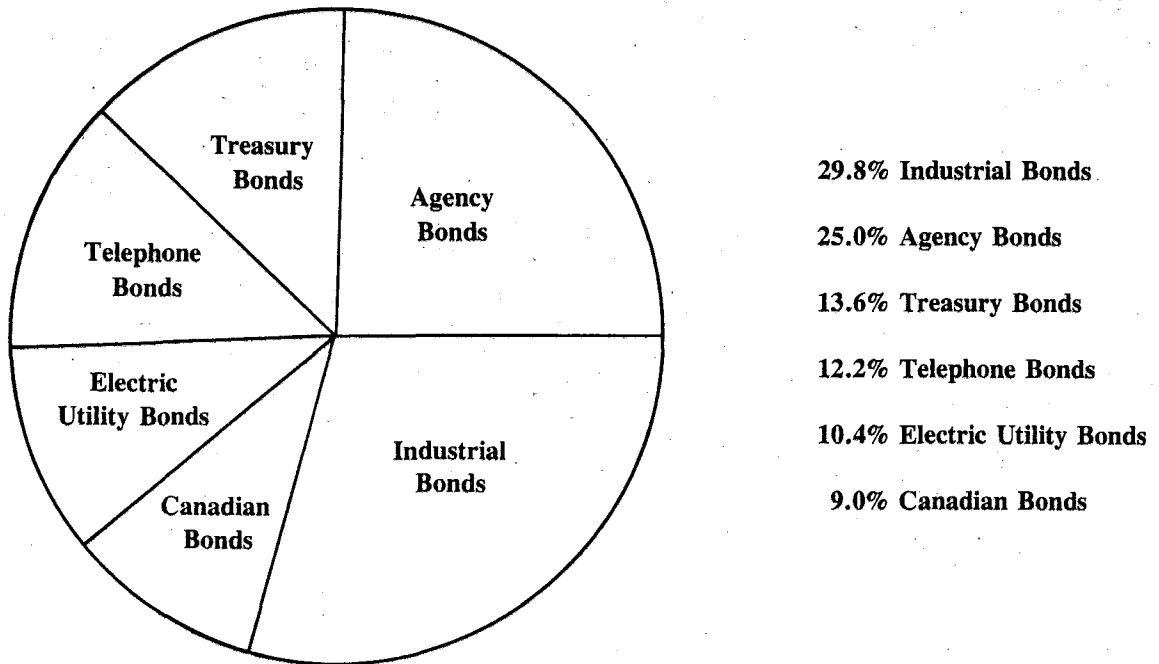


Exhibit 5

BOND PORTFOLIO QUALITY RATINGS BY MOODY'S
June 30, 1987

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.

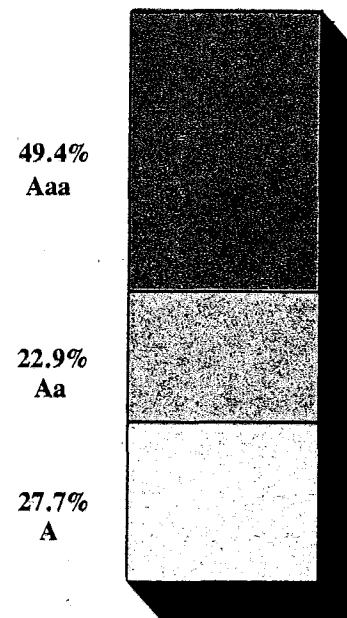


Exhibit 6

DISTRIBUTION OF GOVERNMENT INSURED
OR GUARANTEED MORTGAGE PORTFOLIO
June 30, 1987

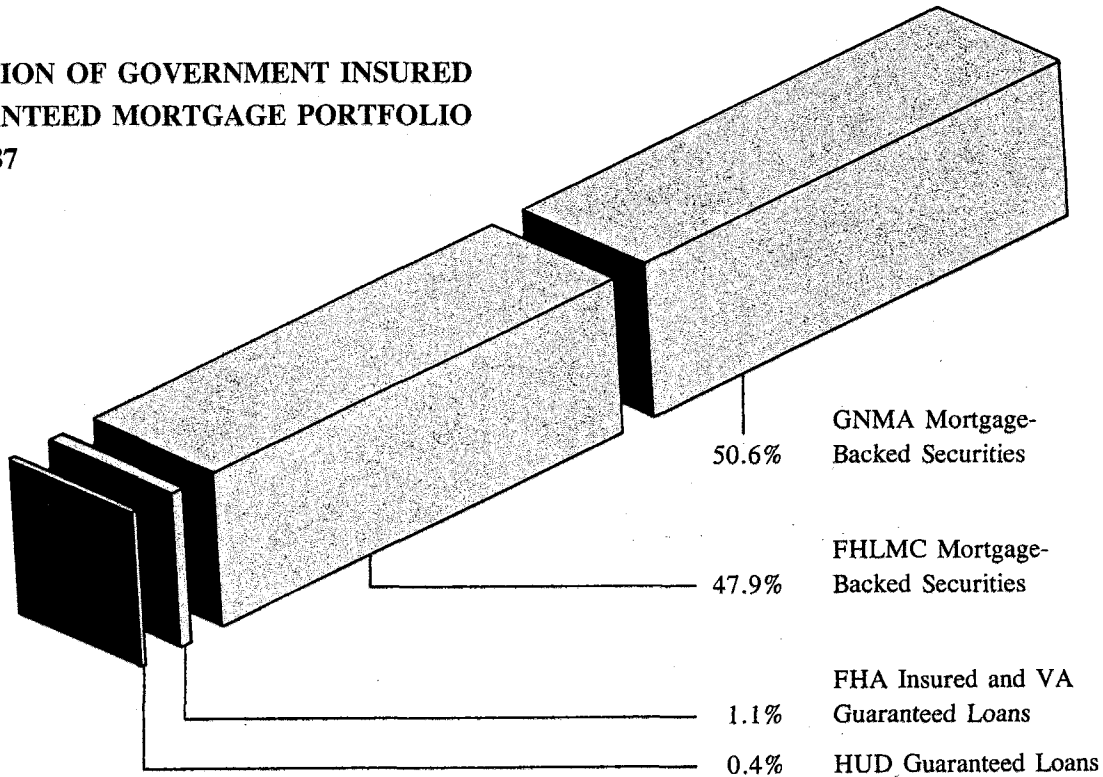


Exhibit 7

REAL ESTATE PORTFOLIO BY GEOGRAPHICAL LOCATION

(Excluding Investments In Commingled Funds)



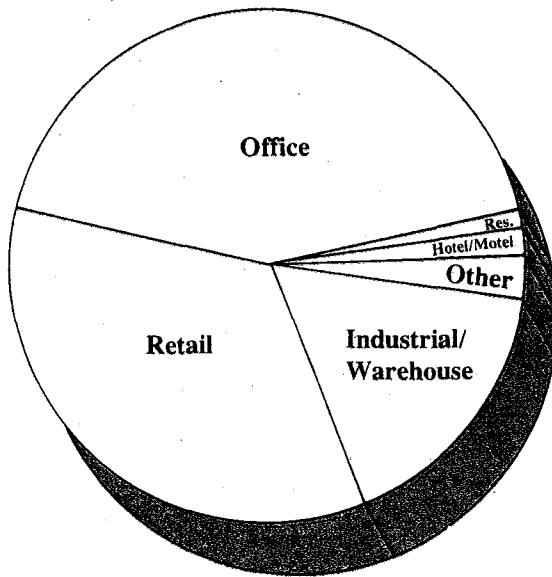
▲ Office Buildings (8)

● Retail (24)

■ Industrial/Warehouse (4)

Exhibit 8

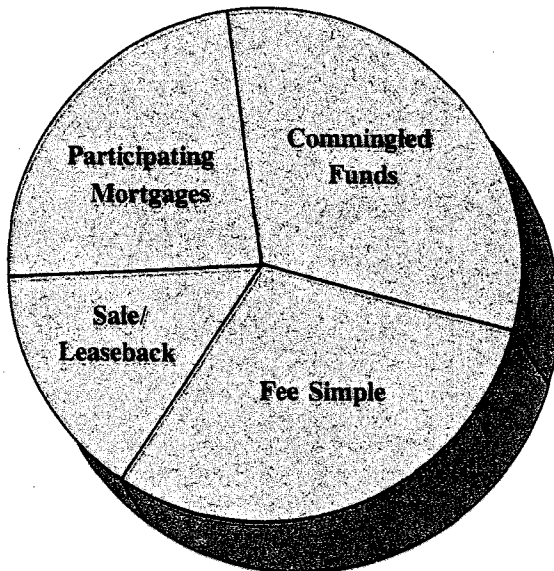
REAL ESTATE PORTFOLIO BY PROPERTY TYPE (Including Commingled Funds)
 Percent Of Holdings As Of June 30, 1987 (Based On Market Value)



- 42.0% Office Buildings
- 35.6% Retail
- 16.9% Industrial/Warehouse
- 2.7% Other
- 1.8% Hotel/Motel
- 1.0% Residential

Exhibit 9

REAL ESTATE PORTFOLIO BY TYPE OF OWNERSHIP
 Percent Of Holdings As Of June 30, 1987 (Based On Market Value)



- 31.2% Commingled Funds
- 29.6% Fee Simple
- 22.7% Participating Mortgages
- 16.5% Sale/Leaseback

Exhibit 10

REAL ESTATE PORTFOLIO BY TYPE OF OWNERSHIP (Including Commingled Funds)
 Percent Of Holdings As Of June 30, 1987 (Based On Market Value)

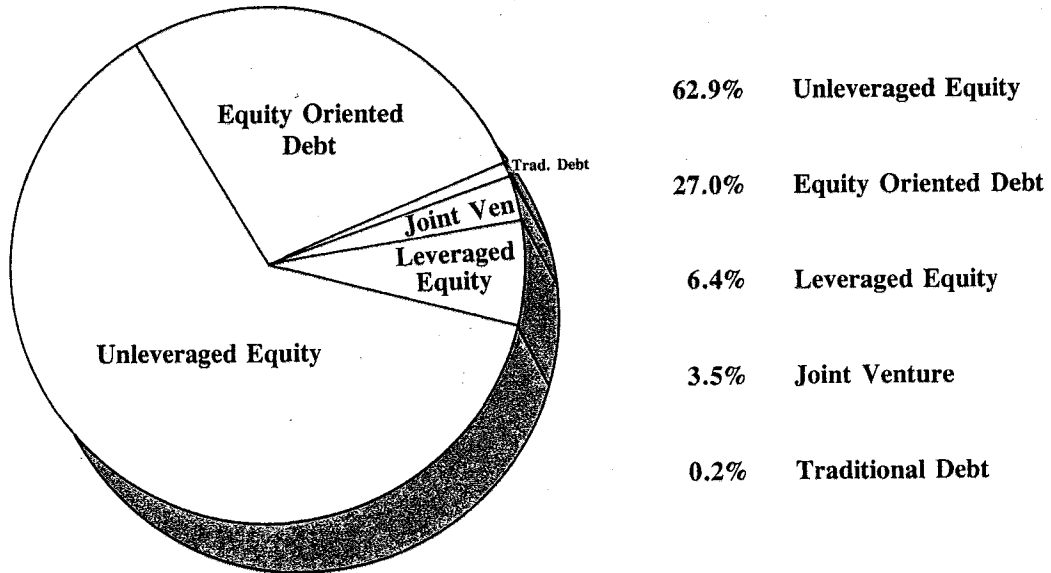
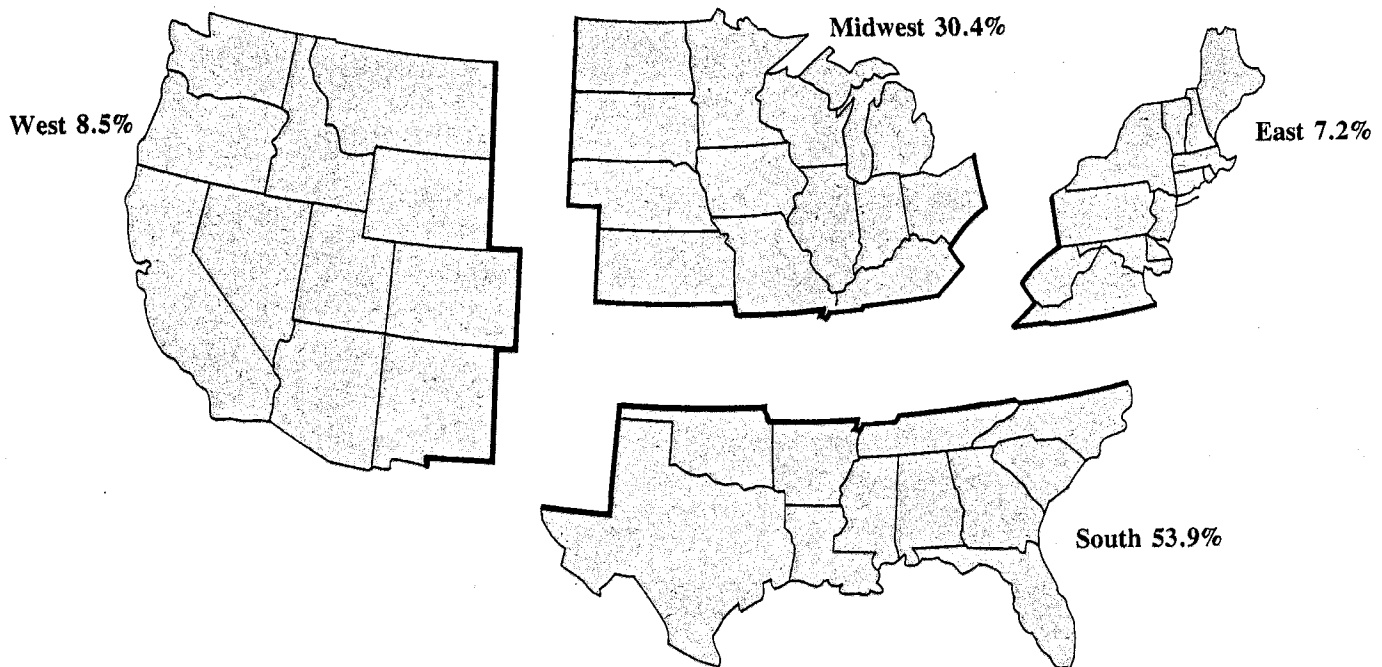


Exhibit 11

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



INVESTMENT POLICY

This Investment Policy was adopted by the School Employees Retirement Board Of Ohio at its August 2, 1985 meeting.

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 accor-

INVESTMENT POLICY (Continued)

D. Investment Objectives (Continued)

Performance Objectives (Continued)

dance with applicable regulatory restrictions and within prudent parameters of risk.

B. Preservation of Principal: To protect the System from severe depreciation in asset value during adverse market conditions. This objective shall be attained 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 those areas where specialized expertise is required, the Retirement Board employs the services of outside Investment Managers.

The Board has 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 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.

INVESTMENT POLICY (Continued)**F. Investment Organization and Responsibilities (Continued)**

- 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.

Responsibilities of the Investment Staff

The Investment Staff, headed by the Executive Director and the Assistant Director for Investments, shall accept the following responsibilities. The Executive Director shall:

- 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

INVESTMENT POLICY (Continued)

F. Review and Evaluation (Continued)

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:

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 accountabili-

ty 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.

PLAN SUMMARY

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 769 school districts. This purpose is sustained by the member and employer contributions and the income realized from investments from 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 retirees. 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 accounting & control, investments, member services, planning & 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 anyone 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 of 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.

PLAN SUMMARY

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 — For service with the armed forces of the U.S., a member may purchase up to five years of credit for time spent before working for a school employer or after leaving that employment. 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 in this instance, the employer-school district must likewise make its contribution, and the employer is under no obligation to do so.

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 \$86.00. If it is, \$86.00 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.

For "early retirement" (the member is under age 65 or has less than 30 years of service) there is a corresponding 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, this may be done by the selec-

PLAN SUMMARY

tion 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 deduction from the benefit. Coverage is offered by the selection 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.

If the benefit recipient participates in Medicare B, the premium is paid by SERS and is added to the monthly benefit.

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 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 1984.

