



Michigan State Employees Retirement System

Comprehensive Annual
Financial Report for the
Fiscal year Ended
September 30, 1997

A Pension Trust Fund of
the State of Michigan
John Engler, Governor

Michigan State Employees Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 1997**



MSERS

**Prepared by:
Office of Retirement Systems
Michigan State Employees Retirement System
7150 Harris Drive
P.O. Box 30171
Lansing, Michigan 48909-7526
(517) 322-5103**

INTRODUCTORY SECTION

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The cost of printing this report was \$1,817.42, which was paid for by the retirement system at no cost to taxpayers.

INTRODUCTORY SECTION

Michigan State Employees Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 1997**

INTRODUCTORY SECTION



MSERS

INTRODUCTORY SECTION

Certificate of Achievement

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Michigan State Employees Retirement System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
September 30, 1996

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



Linda K. Savitsky
President

Jeffrey L. Esler
Executive Director

Letter of Transmittal

State Employees Retirement System
General Office Building, Third Floor
P.O. Box 30171
Lansing, Michigan 48909
Telephone (517) 322-5103

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF MANAGEMENT AND BUDGET

March 4, 1998

The Honorable John Engler
Governor, State of Michigan,

Members of the Legislature
State of Michigan
Retirement Board Members
and
Members, Retirees and Beneficiaries

Ladies and Gentlemen:

We are pleased to present the annual report of the Michigan State Employees' Retirement System (MSERS or System) for fiscal year 1997.

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the management of the System. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the System.

The Michigan State Employees' Retirement System was established by legislation under Public Act 240 of 1943 (the State Employees' Retirement Act). The number of active and retired members and beneficiaries of the System is presented on page 17 of this report. The services provided by the staff are performed to facilitate benefits to members.

The 1997 annual report is presented in five sections. The introductory section contains the transmittal letter, the identification of the administrative organization and professional consultants used by the System. The financial section contains the independent auditors' report, the financial statements of the System and certain supplemental schedules. The investment section summarizes investment activities. The actuarial section contains the independent consulting actuary's certification, an outline of actuarial assumptions and methods, and other actuarial statistics. The statistical section contains statistical tables of significant data pertaining to the Retirement System.

INTRODUCTORY SECTION

Letter of Transmittal (Continued)

MAJOR INITIATIVES FOR THE YEAR

Customer Information Center

In fiscal 1997, the Michigan State Employees' Retirement System and the other systems within the Office of Retirement Systems took a major step toward addressing member concerns regarding telephone communications.

Due in part to the great success of the MSERS temporary phone center during the 1997 early retirement, MSERS joined forces with the Michigan Public School Employees' Retirement System, the Judges' Retirement System and the State Police Retirement System in the fall of 1997 to establish a permanent Customer Information Center (CIC). This toll-free telephone call-in center serves as a comprehensive clearinghouse for information for members of all four retirement systems.

The CIC staff, chosen from all four retirement systems, is cross-trained to allow any staff member to answer questions about any system. Questions that are too specialized for CIC staff to answer are directed to staff of the appropriate retirement system. The goal is that CIC will answer 60% of all calls during the first six months and 90% thereafter.

The CIC became operational in October 1997.

Early Retirement

The early retirement provision of Public Act 487 of 1996 provided a major challenge to the staff of MSERS during 1997. Thanks, in large part, to the groundwork laid by the reengineering efforts of the previous year, the largest State employee early retirement was successfully completed, with almost 5,000 employees taking advantage of this opportunity to retire early. Ninety-seven percent of the new retirees received their first pension check in 60 days or less, compared to delays of up to six months only a year and a half before.

Those employees eligible for the early retirement had to be age 50 or older with 25 or more years of credited service, age 55 or older with 15 or more years of credited service, or age 60 or older with 10 or more years of credited service. Under the plan a pension was calculated based on the highest three-year average compensation times 1.75% times the number of years of credited service. Health insurance benefits were also provided as of the retirement date.

Application could be made on or after March 1, 1997, but no later than April 30, 1997 with a retirement effective date between April 1, 1997 and June 1, 1997. The applicant must have been a member of the Retirement System for the six months preceding the retirement date. Certain key employees were allowed to apply for early retirement and then continue to work past the June 1, 1997, retirement effective date to complete projects and to train replacements. State employees may work until June 1, 1998 and legislative employees may work until December 31, 1998.

MSERS on the World Wide Web

MSERS established a homepage on the World Wide Web (<http://www.state.mi.us/dmb/sers>) offering customers a 24-hour, 365-day-a-year source of retirement information. The MSERS home page offers:

- an overview of the system and its operations
- a listing of Retirement Board members
- an interactive pension benefit estimate calculator
- an actuarial present value estimate calculator

Letter of Transmittal (Continued)

- Pre-Retirement Seminar Schedule
- answers to frequently asked questions for active members and retirees
- questions and answers about the new defined contribution plan
- the complete text of the MSERS' information book
- links to other retirement-related Internet sites
- listings of MSERS' staff including e-mail addresses
- a map providing directions to the MSERS' office from anywhere in the State
- a map showing the location of the MSERS' office within the General Office Building

The move to give MSERS an internet presence was predicated on the growing level of Internet access among members and retirees.

Defined Contribution Plan

New employees hired on or after March 31, 1997, do not participate in the Michigan State Employees' Retirement System, unless they had prior service with the State of Michigan. Instead, they participate in the new defined contribution retirement plan mandated by Public Act 487 of 1996. The defined contribution plan is administered by the Michigan Department of Treasury through State Street Global Advisors. Active members who were hired prior to March 31, 1997, have the opportunity to voluntarily switch to the defined contribution plan between January 2nd and April 30th of 1998.

Actuarial Present Value Calculator

The new defined contribution plan mentioned above allows State employees hired prior to March 31, 1997, to withdraw from the defined benefit plan and irrevocably enroll in the new plan. Vested employees will take the actuarial present value of their retirement pension benefit with them. MSERS staff have developed and implemented an enhancement to the dial-up and internet pension calculators allowing employees to estimate their actuarial present value prior to making their enrollment or transfer decision.

Increased Flexibility for Insurance Enrollment

As part of continuing efforts to improve services and streamline its workflow processes, on April 1, 1997, MSERS changed from a single annual open enrollment period for adding or changing insurance coverage or carriers to accepting new changes at any time. Persons contacting the retirement office to change or add health, vision, and/or dental coverage will be sent the appropriate form on which all changes are to be designated, and the new coverage will take effect six months later.

CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MSERS for its comprehensive annual financial report for the fiscal year ended September 30, 1996. The Certificate of Achievement is a national award recognizing excellence in the preparation of state and local government financial reports.

To be awarded the Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report whose contents meet or exceed program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid only for one year. We believe our current report continues to meet the Certificate of Achievement program requirements and are submitting it to the GFOA for consideration again this year.

INTRODUCTORY SECTION

Letter of Transmittal (Continued)

FINANCIAL INFORMATION

Additions to Plan Net Assets

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through earnings on investments. Contributions and investment income (including unrealized investment gains and losses) for fiscal year 1997 totaled approximately \$2.1 billion (See Table 1). In connection with the early retirement program, members purchased service credits in record numbers. These purchases generated a \$9.5 million or 365.4% increase in member contributions.

The total contributions and investment income increased 51.9% from those of the prior year due primarily to increased investment earnings. Employer contributions decreased 4.8% and investment income increased 76.7% from the prior year. The investment section of this report reviews the results of investment activity for 1997.

Table 1 (\$ in Millions)			Increase	Increase
	1997	1996	(Decrease) Amount	(Decrease) Percentage
Member Contributions	\$ 12.1	\$ 2.6	\$ 9.5	365.4 %
Employer Contributions	410.2	431.1	(20.9)	(4.8)
Investment Income	1,699.1	965.9	733.2	76.0
Total	\$ 2,121.4	\$ 1,399.6	\$ 718.2	51.6 %

Deductions From Plan Assets

The primary expenses of the System include the payment of pension benefits to members and beneficiaries, payments for health, dental and vision benefits, refund of contributions to former members, and cost of administering the retirement system. The growth of health care expenditures continued at a moderate rate during the year. As a result, expenses for health care increased by \$9 million from \$117.7 million to \$126.7 million during the fiscal year. Total deductions for fiscal year 1997 were \$522.7 million, an increase of 18.1% over 1996 deductions (see Table 2). The increase in pension benefit expenses resulted primarily from an increase in benefit payments to retirees. In connection with the early retirement plan, members could choose to transfer their retirement benefit to the defined contribution plan. That resulted in an increase of \$7.8 million or 78% in transfers. Refunds were \$42 thousand compared to \$30 thousand in 1996.

Table 2 (\$ in Millions)			Increase	Increase
	1997	1996	(Decrease) Amount	(Decrease) Percentage
Pension benefits	\$ 382.9	\$ 321.3	\$ 61.6	19.0 %
Health care benefits	126.8	117.7	9.0	7.6
Transfers and refunds	7.8	0.1	7.7	77.0
Administrative expenses	5.2	3.5	1.7	48.5
Total	\$ 522.7	\$ 442.6	\$ 80.1	18.1 %

Letter of Transmittal (Continued)

Internal Control

The management of the System is responsible for maintaining a system of adequate internal accounting control designed to provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization, and are recorded as necessary to maintain accountability for assets and to permit preparation of financial statements in accordance with generally accepted accounting principles. The internal control process is designed to provide reasonable assurance regarding the safekeeping of assets and reliability of all financial records.

YEAR 2000

As the new millennium approaches, institutions throughout the world are faced with the problem that any system or business with a date component may fail or produce invalid results the first time a date in the new millennium is encountered. The System fully recognizes the significance and magnitude of this impending problem and is developing a comprehensive program to achieve Year 2000 compliance.

INVESTMENT

The State Treasurer is the investment fiduciary and custodian of all investments of the System pursuant to state law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment return rate. The investment activity for the year produced a total rate of return on the portfolio of 23.2%. For the last five years, the System has experienced an annualized dollar weighted rate of return of 13.6%. A summary of asset allocation and rates of return can be found on page 38 of this report.

FUNDING

Funds are derived from the excess of revenue over expenses. Funds are accumulated by the System in order to meet future benefit obligations to retirees and beneficiaries. The percentage computed by dividing the actuarial value of assets over the actuarial accrued liability is referred to as the "funded ratio". This ratio provides an indication of the funding status of the System and, generally, the greater this percentage, the stronger the System. As of September 30, 1997, the actuarial value of the assets and actuarial accrued liability of the fund were \$7.5 billion and \$8.2 billion respectively resulting in a funded ratio of 92%. As of September 30, 1996, the amounts were \$7.1 billion and \$6.7 billion. A historical perspective of funding levels for the System is presented on page 27 of this report.

As of September 30, 1997, pension net assets were \$8.8 billion. The ratio of pension plan net assets at market value to the actuarial accrued liability was 107%.

PROFESSIONAL SERVICES

An annual audit of the System was conducted by Andrews, Hooper & Pavlik P.L.C., independent auditors. The auditors' report on the System's financial statements is included in the financial section of this report.

Statute requires an annual actuarial valuation be conducted. The purpose of the valuation is to evaluate the mortality, service, compensation and other financial experience of the Retirement System and to recommend employer funding rates for the subsequent year. This annual actuarial valuation was completed for the fiscal years ended September 30, 1997 and 1996. Actuarial certification and supporting statistics are included in the actuarial section of this report.

INTRODUCTORY SECTION

Letter of Transmittal (Continued)

ACKNOWLEDGMENTS

The preparation of this report was accomplished with the dedication and cooperation of many people. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship of the funds of the System.

We would, therefore, like to express our appreciation for the assistance given by staff, the advisors and many people who contributed to its preparation. We believe their combined efforts have produced a report that will enable the employer and plan members to better evaluate and understand the Michigan State Employees' Retirement System. Their cooperation contributes significantly to the success of MSERS.

Sincerely,



Janet E. Phipps, Director
Department of Management and Budget



Christopher M. DeRose, Director
Office of Retirement Systems

Administrative Organization

Retirement Board Members

R. Douglas Trezise, Chairperson
Retiree Member
Term Expires July 31, 2000

Vacant
Retiree Member
Term Expires July 31, 1998

James S. Neubecker, C.P.A.
Deputy Auditor General
Statutory Member

Janine Winters
Employee Member
Term Expires July 31, 2000

George M. Elworth
Representing Attorney General
Statutory Member

Roy Pentilla
Representing State Treasurer
Statutory Member

Janet McCelland
Employee Member
Term Expires July 31, 1999

D. Daniel McLellan
Representing State Personnel Director
Statutory Member

John Schoonmaker
Representing State Insurance
Commissioner
Statutory Member

Administrative Organization

**Department of Management and Budget
Office of Retirement Systems
Third Floor, Wing A, General Office Building
7150 Harris Drive
P.O. Box 30171, Lansing, Michigan 48909-7526
(517) 322-5103**

Christopher M. DeRose, Director

Deborah A. Gearhart, Director
Finance & Administration

Virginia L. Bomar, Interim Director
State Employees Retirement System

Advisors and Consultants

Actuary

The Segal Company
Michael J. Karlin, F.S.A., M.A.A.A.
New York, New York

Auditors

Thomas H. McTavish, C.P.A.
Auditor General
State of Michigan

Andrews, Hooper & Pavlik P.L.C.
Jeffrey J. Fineis, C.P.A.
Lansing, Michigan

Investment Manager and Custodian

Douglas B. Roberts
State Treasurer
State of Michigan

Legal Advisor

Frank J. Kelley
Attorney General
State of Michigan

Medical Advisors

Preferred Medical Assoc.
Marquette General Hospital

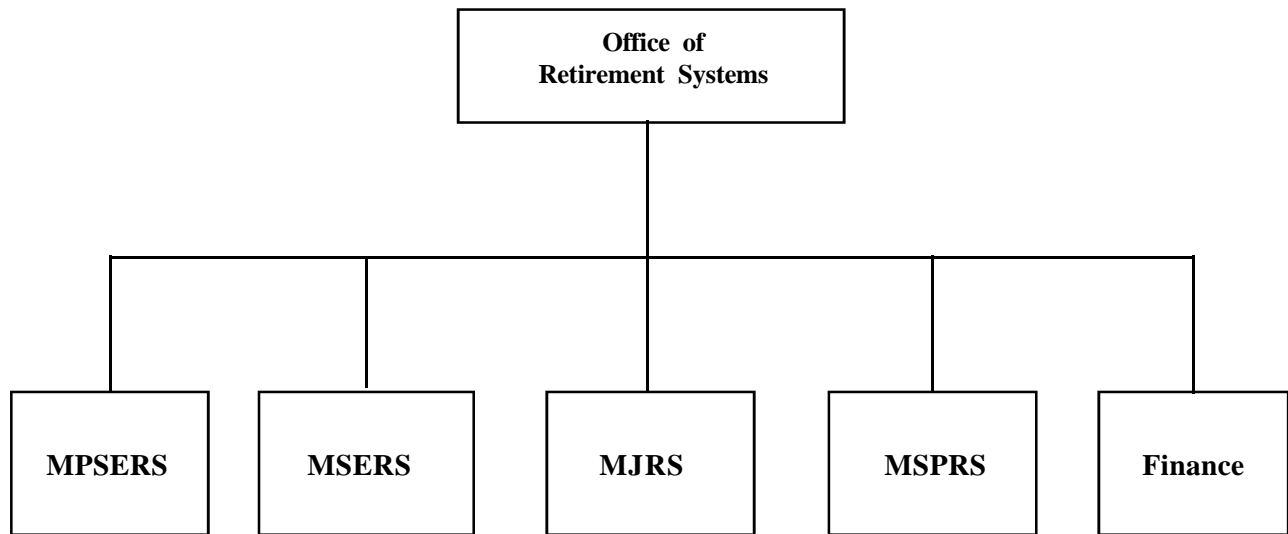
Investment Performance Measurement

S.E.I. Funds Evaluation
Chicago, Illinois

INTRODUCTORY SECTION

Administrative Organization

Organization Chart



- MPSERS - Michigan Public School Employees' Retirement System
- MSERS - Michigan State Employees' Retirement System
- MJRS - Michigan Judges' Retirement System
- MSPRS - Michigan State Police Retirement System

Michigan State Employees Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 1997**

**FINANCIAL
SECTION**



MSERS

Independent Auditors' Report



ANDREWS HOOPER & PAVLIK P.L.C.

One Michigan Avenue Building Suite 1000 • 120 North Washington Square • Lansing, Michigan 48933

Ms. Janet Phipps, Director
Department of Management and Budget

Mr. Thomas H. McTavish, CPA
Auditor General State of Michigan

Michigan State Employees
Retirement System Board:

We have audited the accompanying statements of pension plan and postemployment healthcare plan net assets of the Michigan State Employees Retirement System, as of September 30, 1997 and 1996, and the related statements of changes in pension plan and postemployment healthcare plan net assets for the years then ended. These financial statements are the responsibility of the management of the Michigan State Employees Retirement System. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to in the first paragraph present fairly, in all material respects, the plan net assets of the Michigan State Employees Retirement System, as of September 30, 1997 and 1996, and the changes in plan net assets for the years then ended in conformity with generally accepted accounting principles.

As described in Notes 2 and 4, Michigan State Employees Retirement System adopted GASB Statements 25, 26 and 28 in 1997 and restated amounts reported for 1996 as required.

Our audit was conducted for the purpose of forming an opinion on the financial statements taken as a whole. The required supplementary information and supplemental schedules listed in the table of contents are presented for the purpose of additional analysis and are not a required part of the basic financial statements. The required supplementary information and supplemental schedules are the responsibility of the System's management. Such information and schedules have been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

In accordance with *Government Auditing Standards*, we have also issued a report dated February 6, 1998 on our consideration of the Michigan State Employees Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, and contracts.

February 6, 1998

Andrews Hooper & Pavlik P.L.C.

Lansing 517 487-5000 • Fax 517 487-9535 / Saginaw 517 754-8471 • Fax 517 754-6567

Statements of Pension Plan and Postemployment Healthcare Plan Net Assets

	September 30, 1997			September 30, 1996		
	Pension Plan	Health Plan	Total	Pension Plan	Health Plan	Total
Assets:						
Cash	\$ 15,186,520	\$ 195,692	\$ 15,382,212	\$ 70,144,802	\$ 1,078,715	\$ 71,223,517
Receivables:						
Amounts due from employee	1,063	14	1,077			
Amounts due from employer	26,516,832	341,693	26,858,525	25,392,178	390,491	25,782,669
Interest and dividends	41,454,637	534,180	41,988,817	36,973,307	568,591	37,541,898
Sale of investments	9,340,952	120,367	9,461,319	24,692,891	379,737	25,072,628
Total receivables	77,313,484	996,254	78,309,738	87,058,376	1,338,819	88,397,195
Investments:						
Short term investments	832,135,795	10,722,823	842,858,618	613,009,183	9,427,105	622,436,288
Bonds, notes mortgages and preferred stock	2,222,674,424	28,641,171	2,251,315,595	2,120,880,528	32,615,765	2,153,496,293
Common stock	4,096,762,785	52,790,495	4,149,553,280	3,117,718,857	47,945,550	3,165,664,407
Real estate	561,888,399	7,240,440	569,128,839	459,266,395	7,062,786	466,329,181
Alternative investments	571,677,636	7,366,584	579,044,220	478,764,336	7,362,633	486,126,969
International investments	462,070,902	5,954,202	468,025,104	306,000,659	4,705,803	310,706,462
Collateral on loaned securities	318,778,742	4,107,752	322,886,494	172,202,521	2,648,201	174,850,722
Total investments	9,065,988,683	116,823,467	9,182,812,150	7,267,842,479	111,767,843	7,379,610,322
Equipment (net of depreciation)	578	7	585	1,152	17	1,169
Total assets	9,158,489,265	118,015,420	9,276,504,685	7,425,046,809	114,185,394	7,539,232,203
Liabilities:						
Warrants outstanding	(3,413,655)	(43,989)	(3,457,644)	(3,202,759)	(49,253)	(3,252,012)
Accounts payable and other accrued liabilities	(38,746,007)	(499,278)	(39,245,285)	(34,642,136)	(532,741)	(35,174,877)
Obligations under securities lending	(318,778,742)	(4,107,752)	(322,886,494)	(172,202,521)	(2,648,201)	(174,850,722)
Total liabilities	(360,938,404)	(4,651,019)	(365,589,423)	(210,047,416)	(3,230,195)	(213,277,611)
Net Assets Held in Trust for Pension and Healthcare Benefits*	\$ 8,797,550,861	\$ 113,364,401	\$ 8,910,915,262	\$ 7,214,999,393	\$ 110,955,199	\$ 7,325,954,592

*A schedule of funding progress is presented on page 27.

The accompanying notes are an integral part of these financial statements.

FINANCIAL SECTION

Statements of Changes in Pension Plan and Postemployment Healthcare Plan Net Assets

	September 30, 1997			September 30, 1996		
	Pension Fund	Health Fund	Total	Pension Fund	Health Fund	Total
Additions:						
Members contributions:						
Other	\$ 7,229,118		\$ 7,229,118	\$ 1,266,016		\$ 1,266,016
Military	4,915,035		4,915,035	1,353,051		1,353,051
Employer contributions	288,590,215	\$ 121,641,412	410,231,627	285,766,953	\$ 145,327,418	431,094,371
Investment income:						
Investment income	1,687,290,076		1,687,290,076	957,597,719		957,597,719
Securities lending income	11,803,417		11,803,417	8,322,932		8,322,932
Less investment expenses:						
Real estate operating expenses	(311,903)		(311,903)	(1,700,319)		(1,700,319)
Securities lending expenses	(11,412,796)		(11,412,796)	(8,042,929)		(8,042,929)
Other investment expenses	(2,042,558)		(2,042,558)	(1,481,380)		(1,481,380)
Miscellaneous income	272		272	361		361
Total additions	1,986,060,876	121,641,412	2,107,702,288	1,243,082,404	145,327,418	1,388,409,822
Deductions:						
Benefits paid to plan members and beneficiaries:						
Retirement benefits	382,866,379		382,866,379	321,314,081		321,314,081
Health benefits		113,437,939	113,437,939		104,391,365	104,391,365
Dental/vision benefits		13,340,708	13,340,708		13,350,951	13,350,951
Refunds of member contributions	42,388		42,388	29,978		29,978
Transfers to other systems	7,806,261		7,806,261	104		104
Administrative expenses	5,247,943		5,247,943	3,489,761		3,489,761
Total deductions	395,962,971	126,778,647	522,741,618	324,833,924	117,742,316	442,576,240
Net Increase (Decrease)	1,590,097,905	(5,137,235)	1,584,960,670	918,248,480	27,585,102	945,833,582
Other Changes in Net Assets						
Interest allocation	(7,546,437)	7,546,437		(5,740,883)	5,740,883	
Net Increase After Other Changes	1,582,551,468	2,409,202	1,584,960,670	912,507,597	33,325,985	945,833,582
Net Assets Held in Trust for Pension and Healthcare Benefits:						
Beginning of Year	7,214,999,393	110,955,199	7,325,954,592	6,302,491,796	77,629,214	6,380,121,010
End of Year	\$ 8,797,550,861	\$ 113,364,401	\$ 8,910,915,262	\$ 7,214,999,393	\$ 110,955,199	\$ 7,325,954,592

The accompanying notes are an integral part of these financial statements.

Notes to General Purpose Financial Statements

NOTE 1 - PLAN DESCRIPTION

ORGANIZATION

The Michigan State Employees' Retirement System (MSERS) is a multiple employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State) and created under Public Act 240 of 1943, as amended. MSERS was established by the State to provide retirement, survivor and disability benefits to the State's government employees. MSERS is a qualified trust fund under section 401(a) of the Internal Revenue Code. By statute, employees of the following employers are also covered by this plan: American Legion, American Veterans, Disabled American Veterans, Probate Judges, Mackinac Island State Park, Marine Corps League, Michigan Bar Association, Michigan Veterans Trust Fund, Military Order of the Purple Heart, Commission for Independent Vendors, Third Circuit Court, Records Court and 36th District Court. Michigan judges and elected officials, legislators, national guard and state police officers are covered by separate retirement plans.

MSERS' financial statements are included as a pension trust fund in the combined financial statements of the State of Michigan.

MSERS operates within the Michigan Department of Management and Budget, Office of Retirement Systems. The Department Director appoints the Office Director who serves as Executive Secretary to the MSERS Board, with whom the general oversight of the Retirement System resides. The State Treasurer serves as the investment officer and custodian for the System.

MEMBERSHIP

At September 30, 1997 and 1996, the System's membership consisted of the following:

Retirees and beneficiaries		
currently receiving benefits:	1997	1996
Regular benefits	28,648	23,914
Survivor benefits	4,739	4,535
Disability benefits	2,736	2,644
Total	<u>36,123</u>	<u>31,093</u>
Current employees:		
Vested	33,925	37,122
Non-vested	21,509	26,685
Total	<u>55,434</u>	<u>63,807</u>
Inactive employees entitled		
to benefits and not yet		
receiving them	<u>7,656</u>	<u>6,667</u>
Total All Members	<u><u>99,213</u></u>	<u><u>101,567</u></u>

Enrollment in the health care fund is voluntary. The number of plan participants are as follows.

Health/Dental/Vision Plan	1997	1996
Eligible participants	36,123	31,093
Participants receiving benefits	33,299	28,769

FINANCIAL SECTION

Notes to General Purpose Financial Statements

BENEFIT PROVISIONS

Introduction

Benefit provisions of the defined benefit pension plan are established by state statute, which may be amended. Public Act 240 of 1943, State Employees Retirement Act, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan. Retirement benefits are determined by final average compensation and years of service. Members are eligible to receive a monthly benefit when they meet certain age and service requirements. MSERS also provides duty disability, non-duty disability and survivor benefits.

Members who separated from employment may request a refund of his or her member contribution account. (MSERS is currently non-contributory.) A refund cancels a former member's rights to future benefits. Former members who return to employment and who previously received a refund of their contributions may reinstate their service through repayment of the refund upon satisfaction of certain requirements.

Effective March 31, 1997, Public Act 487 of 1996 closed the plan to new entrants. All new employees become members of the defined contribution plan. The Public Act allows returning employees and members who left state employment on or before March 31, 1997, to elect the defined benefit plan instead of the defined contribution plan.

Regular Retirement

The retirement benefit is based on a member's years of credited service (employment), age, and final average compensation. The normal benefit equals 1.5% of a member's final average compensation multiplied by the years of credited service and is payable monthly over the member's lifetime.

Final average compensation is the average of a member's monthly pay during 36 consecutive months of credited service. The 36 consecutive month period producing the highest monthly average is used. For most members, this is the last three years of employment.

A member may retire and receive a monthly benefit after attaining:

1. age 60 with 10 or more years of credited service; or
2. age 55 with 30 or more years of credited service; or
3. age 55 with at least 15 but less than 30 years of credited service. The benefit allowance is permanently reduced 0.5% for each month from the member's age on the effective date of retirement to the date the member will attain age 60.

Employees in covered positions are eligible for supplemental benefits and may retire after attaining:

1. age 51 with 25 or more years in a covered position; or
2. age 56 with 10 or more years in a covered position.

In either case, the three years immediately preceding retirement must have been in a covered position. Employees in covered positions are responsible for the custody and supervision of inmates.

Employees of closing Department of Community Health facilities are eligible for retirement under one of the following conditions:

1. age 51 with 25 years of service, the last 5 of which were rendered in the closing facility;
2. age 56 with 10 years of service, the last 5 of which were rendered in the closing facility; or
3. 25 years of service at the closing facility regardless of age.

Notes to General Purpose Financial Statements

Employees of the State Accident Fund, Michigan Biologic Products or Liquor Control Commission who were terminated as the result of privatization may retire if the member's age and length of service was equal to or greater than 70 on the date of transfer or termination.

Conservation Officers (CO) with a hire date on or before April 1, 1991, are eligible to retire after 25 years of service, 20 of which must have been rendered as a CO. CO's hired after April 1, 1991 and before March 31, 1997, must have 23 years of service as a CO to be eligible for a full retirement with only 25 years of service. In either case, 2 years immediately preceding retirement must be as a CO.

Deferred Retirement

Any member with 10 or more years of credited service who terminates employment but has not reached the age of 60 is a deferred member and is entitled to receive a monthly pension upon reaching age 60, provided the member's accumulated contributions have not been refunded. Deferred retirement is available after 5 years of service for State employees occupying unclassified positions in the executive and legislative branches and certain Department of Community Health employees subject to reduction in force lay-offs by reason of deinstitutionalization.

Non-Duty Disability Benefit

A member with 10 or more years of credited service who becomes totally and permanently disabled not due to performing duties as a state employee is eligible for a non-duty disability pension. The non-duty disability benefit is computed in the same manner as an age and service allowance based upon service and salary at the time of disability.

Duty Disability Benefit

A member who becomes totally and permanently disabled from performing duties as a state employee as a direct result of state employment and who has not met the age and service requirement for a regular pension, is eligible for a duty disability pension. If the member is under age 60, the duty disability allowance is a maximum payment of \$6,000 payable annually. At age 60 the benefit is recomputed under service retirement.

Survivor Benefit

Upon the death of a member who was vested, the surviving spouse shall receive a benefit calculated as if the member had retired the day before the date of death and selected Option A (see below). Certain designated beneficiaries can be named to receive a survivor benefit.

Pension Payment Options

When applying for retirement, an employee may name a person other than his or her spouse as a beneficiary if the spouse waives this right. If a beneficiary is named, the employee must choose whether the beneficiary will receive 100% or 50% of the retiree's pension benefit after the retiree's death. The decision is irrevocable. A description of the options follows.

Regular Pension — The pension benefit is computed with no beneficiary rights. If the retiree made contributions while an employee and has not received the total accumulated contributions before death, a refund of the balance of the contributions is made to the beneficiary of record. If the retiree did not make any contributions, there will not be payments to beneficiaries.

Option A (100% survivor) — Under this option, after the retiree's death, the beneficiary will receive 100% of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

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Notes to General Purpose Financial Statements

Option B (50% survivor) — Under this option, after the retiree's death, the beneficiary will receive 50% of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. The reduction factor is lower than the factor used in Option A above. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

Equated Pension — An equated pension may be chosen by any member under age 65 except a disability retiree and an early supplemental retiree. Equated pensions provide an additional amount until age 65 and may be combined with Regular, Option A or B. At age 65 the monthly amount is permanently reduced. The initial and reduced amounts are based on an estimate of social security benefits at age 65. Social security benefits are estimated by using age, final salary average, and State service. The actual amount received from social security may vary from the estimate.

Post Retirement Adjustments

One time upward benefit adjustments were made in 1972, 1974, 1976, 1977 and 1987. Beginning October 1, 1988, a 3% non-compounding increase, up to a maximum of \$25 monthly, is paid each October to recipients who have been retired 12 full months. Beginning in 1983, eligible benefit recipients share in a distribution of investment income earned in excess of 8% annually. This distribution is known as the thirteenth check. The thirteenth check is offset by one year's cumulative increases received after the implementation of the annual 3% increase in benefits. These adjustment payments were not issued during fiscal years 1991 through 1994. Members who retired on or after October 1, 1987, are not eligible for the thirteenth check.

Contributions

Member Contributions — Members currently participate in MSERS on a noncontributory basis. Under certain circumstances, members may contribute to the System for the purchase of creditable service, such as military service or maternity leave. If a member terminates MSERS covered employment before a retirement benefit is payable, the member's contribution and interest on deposit may be refunded. If the member dies before being vested, the member's contribution and interest are refunded to the designated beneficiaries.

Employer contributions — The statute requires the employer to contribute to finance the benefits of plan members. These employer contributions are determined annually by the System's actuary and are based upon level-percent-of-payroll funding principles so the contribution rates do not have to increase over time.

Early Retirement

Public Act 487 of 1996 provided an opportunity for employees to retire early if they met certain age and years of service requirements. To take advantage of the early retirement plan, an employee had to apply on or after March 1, 1997, but no later than April 30, 1997. The effective date of retirement had to be on or after April 1, 1997, but no later than June 1, 1997. Under certain circumstances, the effective date of retirement could be between June 1, 1997 and December 31, 1998. The plan included an incentive in the benefit calculation. The benefit was calculated by multiplying the final average compensation by 1.75% (instead of 1.5%) and the years of service. State employees may work until June 1, 1998 and legislative employees may work until December 31, 1998.

Other Post Employment Benefits

Under the State Employees Retirement Act, all retirees have the option of receiving health, dental and vision coverage. The employer funds health benefits on a pay-as-you-go basis. Retirees with this coverage contribute 5% and 10% of the monthly premium amount for the health, dental and vision coverage, respectively. The employer's payroll contribution rate to provide this benefit was 4.8% and 5.0% for fiscal years 1997 and 1996 respectively.

Prescription drug, vision and dental coverage is also available.

Notes to General Purpose Financial Statements

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting and Presentation

MSERS financial statements are prepared using the accrual basis of accounting. Contributions from the State are recognized as revenue in the period in which employees provide service. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Reserves

Public Act 240 of 1943, as amended, created the employees' savings reserve, employer's accumulation reserve, pension reserve, income account, expense account, and health insurance reserve. The financial transactions of the plan are recorded in these accounts as required by Public Act 240 of 1943, as amended.

Employees' Savings Reserve — Members no longer contribute to this fund except to purchase eligible service credit or repay previously refunded contributions. This fund represents active member contributions and interest less amounts transferred to the Pension Reserve for regular and disability retirement, amounts refunded to terminated members and unclaimed amounts transferred to the income account. At September 30, 1997, and 1996, the balance in this account was \$16.7 million and \$68.0 million respectively.

Pension Reserve — This represents the reserves for payment of future retirement benefits to current retirees. At retirement, a member's accumulated contributions plus interest are transferred into this reserve from the Employee's Savings Reserve. Monthly benefits, which are paid to the retiree, reduce the reserve. At the end of each fiscal year, an amount determined by an annual actuarial valuation is transferred from the Employer Accumulation Reserve to this reserve to fully fund this reserve. At September 30, 1997 and 1996, the balance in this account was \$3.2 billion and \$3.2 billion respectively.

Employer Accumulation Reserve — All employer contributions are credited to this reserve. Interest from the income account is credited annually. Amounts are transferred annually to the Pension Reserve to fully fund this reserve. At September 30, 1997 and 1996, the balance in this account was \$3.7 billion and \$3.4 billion respectively.

Income Account and Expense Account — The income account is credited with all investment earnings. Interest is transferred annually to the reserves. Administrative expenses are paid from the expense account. The legislature appropriates the funds necessary to defray and cover the administrative expense of the plan. At September 30, 1997 and 1996, the net balance of these accounts was \$1.8 billion and \$614.0 million respectively.

Health Insurance Reserve — This fund is credited with employee and employer contributions for retirees' health, dental and vision benefits. Premiums for health, dental and vision benefits are paid from this fund. At September 30, 1997 and 1996, the balance in this account was \$113.4 million and \$111.0 million respectively.

Fair Value of Investments

Plan investments are reported at fair value, except for short-term investments. Short-term investments are carried at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Corporate bonds not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk. Real estate debt is valued on the basis of future principal and interest payments, and is discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals. Other investments not having an established market are recorded at estimated fair value.

Reporting Entity

MSERS is a pension trust fund of the State of Michigan. As such, MSERS is considered part of the State and is included in the State's comprehensive annual financial report as a pension trust fund. MSERS and the MSERS' board are not

FINANCIAL SECTION

Notes to General Purpose Financial Statements

financially accountable for any other entities or other organizations. Accordingly, MSERS is the only entity included in this financial report.

Investment Income

Dividend income is recognized based on the ex-dividend date and interest income is recognized on the accrual basis as earned. Fair value changes are recorded as investment income or loss. Purchases and sales of investments are recorded as of the trade date (the date upon which the transaction is initiated), except for purchase and sale of mortgages, real estate, and alternative investments which are recorded as of the settlement date (the date upon which the transaction is ultimately completed). The effect of recording such transactions as of the settlement date does not materially affect the financial statements.

Property and Equipment

Office space is leased from the State on a year to year basis. Office equipment is capitalized if the value exceeds \$5,000. These assets are recorded at cost and are reported net of depreciation in the Statement of Pension and Postemployment Healthcare Plan Net Assets. Such assets are depreciated on a straight line basis over 10 years.

Related Party Transactions

Leases and services — The retirement system leases operating space and purchases certain administrative, data processing, legal and investment services from the State. The space and services are not otherwise available by competitive bid. The following summarizes costs incurred by MSERS for such services.

	<u>1997</u>	<u>1996</u>
Building rentals	\$ 117,071	\$ 118,910
Administrative services	203,168	272,153
Data processing services	1,197,252	411,150
Legal	158,410	87,763
Investment	1,745,236	1,684,434

Common Cash — The cash account includes \$15,382,212 and \$71,223,517, on September 30, 1997, and 1996, respectively, which represents funds deposited in a common cash investment pool maintained for various State operating funds. The participating funds in the common cash pool earn interest at various rates depending upon prevailing short-term interest rates. Earnings from these activities amounted to \$2,931,025 and \$4,083,747 for the years ended September 30, 1997 and 1996, respectively.

Effect of change in accounting principle

During fiscal year 1997, MSERS adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, and Statement No. 26, *Financial Reporting for Postemployment Healthcare Plans Administered by Defined Benefit Pension Plans*. GASB Statements 25 and 26 establish the financial reporting framework for pension plans. The framework includes fair value accounting for investments (recognition of unrealized investment gains and losses), amortization of unfunded actuarial liabilities over 40 years, and requires certain additional disclosures regarding postemployment healthcare benefits.

The provisions of GASB Statement No. 25 and 26 require restatement of the prior year balances for the effect of changing from reporting investments at cost to reporting investments at fair value. The effect of the change in accounting principle on the net assets held in trust for pension benefits and postemployment healthcare benefits as of September 30, 1995, is shown below.

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Notes to General Purpose Financial Statements

	<u>Pension</u>	<u>Health</u>	<u>Total</u>
September 30, 1995 Net assets held in trust for benefits, as previously reported	\$ 5,312,238,091	\$ 65,432,036	\$ 5,377,670,127
Cumulative effect of change in accounting principle	<u>990,253,705</u>	<u>12,197,178</u>	<u>1,002,450,883</u>
September 30, 1995, Net assets held in trust, for benefits as restated	<u>\$ 6,302,491,796</u>	<u>\$ 77,629,214</u>	<u>\$ 6,380,121,010</u>

Reclassification of Prior Year Amounts

Certain amounts in the prior year financial statements have been reclassified to conform with the current year presentation.

NOTE 3 - CONTRIBUTIONS

Contributions

Members currently participate in MSERS on a non-contributory basis. Under certain circumstances, members may contribute to the System for the purchase of creditable service such as military service or maternity leave. The State is required by Public Act 240 of 1943, as amended, to contribute amounts necessary to finance the benefits of its employees. Contribution provisions are fixed by state statute and may be amended only by action of the state legislature.

Periodic employer contributions to MSERS are determined on an actuarial basis using the entry age normal actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit age. The portion of this cost allocated to the current valuation year is called the normal cost. The remainder is called the actuarial accrued liability. Normal cost is funded on a current basis. The unfunded actuarial accrued liability is funded over a 39-year period (remaining) for the 1996-97 fiscal year.

Actual employer contributions for retirement benefits including health contributions in excess of health benefits paid for the year were \$283,452,980 and \$313,352,055, representing 11.5% and 12.6% of annual covered payroll, for the years ended September 30, 1997, and 1996, respectively. Required employer contributions for pensions included:

1. \$229,502,829 and \$231,374,113 for fiscal years 1997 and 1996, respectively, for normal cost of pensions representing 9.1% and 9.2%, respectively, of annual covered payroll;
2. \$20,295,693 and \$41,307,907 for fiscal years 1997 and 1996, respectively, for amortization of unfunded actuarial liability, representing 0.8% and 1.2%, respectively, of annual covered payroll;

The fund is required to reconcile actuarial requirements annually. Any funding excess or deficiency is included in the subsequent years appropriation request, and is not recognized as a payable or receivable in the accounting records. Based on this reconciliation and other adjustments, the differences are smoothed over 5 years.

NOTE 4 - INVESTMENTS

Investment Authority

Under Public Act 380 of 1965, as amended, the authority for the purchase and the sale of investments resides with the State Treasurer. Investments are made subject to the Michigan Public Pension Investment Act, Public Act 314 of 1965, as amended. The Michigan Public Pension Investment Act authorizes, with certain restrictions, the investment of pension fund assets in stock, corporate and government bonds and notes, mortgages, real estate, and certain short-term and alternative investments. Investments must be made for the exclusive purposes of providing benefits to active members, retired members and beneficiaries, and of defraying the expenses of investing the assets.

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Notes to General Purpose Financial Statements

Under Public Act 314 of 1965 up to 5% of the System's assets may be invested in alternative investments and up to 15% of the System's assets may be invested in investments not otherwise qualified under the Act. Alternative investments include limited partnerships and distributions from these partnerships in the form of bonds, common stock and preferred stock.

Derivatives

The State Treasurer does not employ the use of derivatives in the investment of Common Cash or the investment of trust funds other than the pension trust funds.

Derivatives are used for a small amount of the pension trust fund portfolios. However, derivatives are not used for speculation and they are not used to leverage the investment portfolios. Less than 6% of the total pension trust funds portfolio has been invested from time to time in future contracts, collateralized mortgages and swap agreements. Swap agreements represent the largest category of derivatives used, and represent approximately 5.4% of the total portfolio.

To further diversify the pension funds portfolio into international equities, the State Treasurer has entered into swap agreements with AAA rated counterparties which are tied to stock market indices in seventeen foreign countries. The notional amounts of the swap agreements at September 30, 1997 and 1996, were \$389.1 million and \$277.9 million, respectively. One half of the notional amount is hedged against foreign currency fluctuations. The swap agreements provide that the retirement systems will pay quarterly, over the term of the swap agreements, interest indexed to the three month London Inter Bank Offer Rate (LIBOR), adjusted for an interest rate spread, on the notional amount stated in the agreements. At the maturity of the swap agreements the pension fund will either receive the increase in the value of the international equity indices from the level of the indices at the inception of the agreements, or pay the decrease in the value of the indices. Swap agreement maturities range from January, 1998 to December, 2000.

U.S. domestic LIBOR based floating rate notes were purchased in the open market to correspond approximately with the notional amount of the swap agreements. The State Treasurer maintains custody and control of these notes.

The value of these synthetic equity structures is a combination of the value of the swap agreements and the value of the notes. The book value represents the cost of the notes. The current value represents the current value of the notes and the change in value of the underlying indices from the inception of the swap agreements. The current value is used as a representation of the fair value based upon the intention to hold all swap agreements until maturity.

The respective September 30, 1997 and 1996 values are as follows:

	<u>Notional Value</u>	<u>Book Value</u>	<u>Current Value</u>
9/30/97 (dollars in millions)	\$ 389.1	\$ 385.3	\$ 468.0
9/30/96 (dollars in millions)	277.9	277.1	310.7

Investments Exceeding 5% of Plan Net Assets

MSERS did not hold an individual investment (other than U.S. Government securities) that exceeded 5% of net assets available for benefits at September 30, 1997 or 1996.

Securities Lending

In May 1995, GASB issued Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*. The statement established accounting and financial reporting standards for recognizing assets and liabilities arising from collateralized securities lending transactions in which governmental entities (lenders) transfer their securities to broker-dealers and other entities (borrowers). MSERS adopted the provisions of this standard for the year ended September 30,

Notes to General Purpose Financial Statements

1997. Comparative amounts for fiscal year 1996 have been restated to reflect this change. The effect of this change has increased the total assets and total liabilities of the System as of September 30, 1997 and 1996 by \$322,886,494 and \$174,850,722 respectively.

State statutes allow the retirement system to participate in securities lending transactions, and the retirement system has, via a Securities Lending Authorization Agreement, authorized its agent bank, State Street Bank & Trust Company (State Street), to lend its securities to broker-dealers and banks pursuant to a form of loan agreement.

During the fiscal year, the agent bank lent, at the direction of the retirement system, the retirement system's securities and received cash (United States and foreign currency), securities issued or guaranteed by the United States government, sovereign debt rated A or better, convertible bonds, and irrevocable bank letters of credit issued by a person other than the borrower or an affiliate of the borrower as collateral. The agent bank did not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to: (i) in the case of loaned securities denominated in United States dollars or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102% of the market value of the loaned securities; and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States, 105% of the market value of the loaned securities.

The retirement system did not impose any restrictions during the fiscal year on the amount of the loans the agent bank made on its behalf. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year. Moreover, there were no losses during the fiscal year resulting from a default of the borrowers or the agent bank. State Street is not liable for any losses unless there is negligence or willful misconduct on its part.

During the fiscal year, the retirement system and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. As of September 30, 1997, such investment pool had an average duration of 53 days and an average weighted maturity of 55 days. Because the loans were terminable at will their duration did not generally match the duration of the investments made with cash collateral. On September 30, 1997, the retirement system had no credit risk exposure to borrowers. The collateral held and the market value of securities on loan for the retirement system as of September 30, 1997 were \$324,415,435 and \$315,321,587 respectively. The types of securities included in these amounts were as follows:

USD Market Value of	Cash	Securities	Letter of Credit	Total
Collateral	\$ 322,886,494	\$ 1,441,971	\$ 86,970	\$ 324,415,435
Loaned Securities	313,858,919	1,397,027	65,642	315,321,587

Gross income from security lending for the fiscal year was \$11,803,417. Expenses associated with this income amounted to \$11,219,908 for the borrower's rebate and \$192,888 for fees paid to the agent.

Categories of Investment Risk

Investments made by the fund, including repurchase agreements and information concerning reverse repurchase agreements, are summarized below. The investments represented by specific identifiable investment securities are classified as to credit risk in three categories.

Category 1 includes investments insured, registered, or held by MSERS' or its agent in MSERS' name. Category 2 includes uninsured and unregistered investments held by the counterparty's trust department or agent in MSERS' name. Category 3 includes uninsured and unregistered investments held by the counterparty, its trust department, or agent, but not in MSERS' name.

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Notes to General Purpose Financial Statements

At September 30, 1997, all investments of the pension trust fund were classified as Category 1, except for certain investments not categorized.

The following table summarizes the investments:

Category 1	
Prime Commercial Paper	\$ 689,794,068
Short Term Note	153,064,550
Government Securities	1,148,962,267
Corporate Bonds & Notes	845,339,668
Convertible Bonds	4,183,670
Preferred Stock	120,928
Equities	4,004,306,139
Real Estate	62,319,556
Alternative Investments	28,438,453
Derivatives (International)	468,025,104
Total Category 1	\$ 7,404,554,403
Non-Categorized	
Private Placements	36,803,001
Mortgages	47,294,284
Real Estate	506,809,283
Alternative Investments	550,605,767
Cash Collateral	322,886,494
Securities on Loan:	
U.S. Government Securities	167,459,252
Corporate Bonds and Notes	1,152,525
Equities	145,247,141
Total Non-Categorized	\$ 1,778,257,747
Grand Total	\$ 9,182,812,150

As of September 30, 1996, the market value of the Category 1 and Non-categorized investments was \$5,917,606,464 and \$1,462,003,858 respectively.

NOTE 5 - COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision made by the Board. Once the administrative procedure has been exhausted, the decision may be appealed in Michigan's court system.

The majority of the administrative cases pending at September 30, 1997, or filed subsequent to fiscal year end, seek reversal of a denial of duty or non-duty disability. Various cases having exhausted the administrative procedures have been appealed in the court system. These cases are in the normal course of business and the retirement system does not anticipate any material loss as a result of the contingent liabilities.

Required Supplementary Information

Schedule of Funding Progress (Amounts in Millions)

Expressing the net assets available for benefits as a percentage of the actuarial accrued liability provides one indication of MSERS funding status. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system. Trends in unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of MSERS progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the system.

Retirement Benefits (\$ in Millions)

Valuation Date Sept 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) ⁽¹⁾ (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio AAL (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1988	\$ 3,642	\$ 3,576	\$ (66)	101.8 %	\$ 1,927	(3.4) %
1989	3,928	3,967	39	99.0	2,066	1.9
1990 [#]	4,106	4,464	358	92.0	2,306	15.5
1991	4,347	4,939	592	88.0	2,315	25.6
1992	4,534	5,480	946	82.7	2,266	41.8
1993 ⁺	5,043	6,172	1,129	81.7	2,261	49.9
1994	5,476	6,560	1,084	83.5	2,351	46.1
1995	6,090	6,861	771	88.8	2,431	31.7
1996	6,678	7,147	469	93.4	2,515	18.6
1997	7,515	8,213	698	92.0	2,273	30.7

⁽¹⁾ Based on entry age normal actuarial method.

[#] Benefits amended.

⁺ Revised asset valuation method.

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Required Supplementary Information (Continued)

Schedule of Employer Contributions

<u>Fiscal Year Ending Sept. 30</u>	<u>Annual Required Contribution (ARC)</u>	<u>Percentage Contributed</u>
1988	\$ 129,389,951	127.2 %
1989	141,862,851	79.9
1990	160,367,963	77.3
1991	195,590,162	78.8
1992	215,470,500	86.8
1993	219,912,052	112.3
1994	230,231,706	114.6
1995	260,769,716	117.5
1996	262,682,020	108.9
1997	249,798,522	115.5

Notes to Required Supplemental Information

NOTE A - DESCRIPTION

Ten year historical trend information designed to provide information about MSERS progress made in accumulating sufficient assets to pay benefits when due is presented in the preceeding schedules. Other ten year historical trend information related to the pension plan is presented in the statistical and actuarial sections of the report. This information is presented to enable the reader to assess the progress made by MSERS in accumulating sufficient assets to pay pension benefits as they become due.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the pension obligation as a factor.

The Schedule of Funding Progress and Schedule of Employer Contributions are reported as historical trend information. The Schedule of Funding Progress is presented to measure the progress being made to accumulate sufficient assets to pay benefits when due. The Schedule of Employer Contributions is presented to show the responsibility of the Employer in meeting the actuarial requirements to maintain the retirement system on a sound financial basis.

NOTE B - SUMMARY OF ACTUARIAL ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation Date	09/30/97
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Payroll, Closed
Remaining Amortization Period	39 Years
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions:	
Inflation Rate	3% next 2 years, then 5%
Investment Rate of Return	8%
Projected Salary Increases	3% - 11.5%
Cost-of-Living Adjustments	3% Annual Non-Compounded with Maximum Annual Increase of \$300 for those Eligible

FINANCIAL SECTION

Supporting Schedules

Comparative Summary Schedule of Pension Plan Administrative Expenses Year Ended September 30, 1997 and 1996

	<u>1997</u>	<u>1996</u>
Personnel Service:		
Staff salaries	\$ 1,081,072	\$ 803,482
Retirement and social security	223,825	200,555
Other fringe benefits	167,433	144,707
	<u>1,472,330</u>	<u>1,148,744</u>
Total	1,472,330	1,148,744
Professional Services:		
Actuarial	62,315	65,647
Accounting, records management and mail	237,873	437,677
Data processing	1,197,252	411,150
Attorney general	158,410	87,763
Audit	30,438	60,547
Medical	195,289	164,254
	<u>1,881,577</u>	<u>1,227,038</u>
Total	1,881,577	1,227,038
Building and Equipment:		
Building rentals	117,071	118,910
Equipment purchase, maintenance and rentals	156,221	66,684
Depreciation	586	586
	<u>273,878</u>	<u>186,180</u>
Total	273,878	186,180
Miscellaneous:		
Customer Information Center	20,796	0
Office administrative support	59,030	148,508
Department administrative support	203,168	272,153
Travel and board meetings	13,544	5,860
Postage, telephone and other	1,323,620	501,278
	<u>1,620,158</u>	<u>927,799</u>
Total	1,620,158	927,799
Total Administrative Expenses	<u>\$ 5,247,943</u>	<u>\$ 3,489,761</u>

Supporting Schedules (Continued)

Schedule of Investment Expenses

	<u>1997</u>	<u>1996</u>
Real Estate	\$ 311,903	\$ 1,700,319
Securities Lending Expense	11,412,796	8,042,929
Other	<u>2,042,558</u>	<u>1,481,380</u>
Total Investment Expenses	<u><u>\$ 13,767,257</u></u>	<u><u>\$ 11,224,628</u></u>

Schedule of Payments to Consultants

	<u>1997</u>	<u>1996</u>
Independent Auditors	\$ 30,438	\$ 60,547
Attorney General	158,410	87,763
Medical Advisor	195,289	164,254
Actuary	<u>62,316</u>	<u>65,647</u>
Total Payments	<u><u>\$ 446,453</u></u>	<u><u>\$ 378,211</u></u>

FINANCIAL SECTION

Supporting Schedules (continued)

Detail of Changes in Plan Net Assets (Pension and Postemployment Healthcare Benefits)

	For Year Ending September 30, 1997					
	Employee Savings	Pension Reserve	Employer Accumulation	Income	Health Insurances	Total
Additions:						
Members contributions:						
Other	\$ 7,229,118					\$ 7,229,118
Military	4,915,035					4,915,035
Employer contributions			\$ 288,590,215		\$ 121,641,412	410,231,627
Investment income:						
Investment income				\$ 1,687,290,076		1,687,290,076
Securities lending income				11,803,417		11,803,417
Less investment expenses:						
Real estate operating expenses				(311,903)		(311,903)
Securities lending expenses				(11,412,796)		(11,412,796)
Other investment expenses				(2,042,558)		(2,042,558)
Miscellaneous income				272		272
Total additions	12,144,153		288,590,215	1,685,326,508	121,641,412	2,107,702,288
Deductions:						
Benefits paid to plan members and beneficiaries						
Retirement benefits		382,866,379				382,866,379
Health benefits					113,437,939	113,437,939
Dental/vision benefits					13,340,708	13,340,708
Refunds of member contributions	42,388					42,388
Transfers to other systems	312,680		7,493,581			7,806,261
Administrative expenses				5,247,943		5,247,943
Total deductions	355,067	382,866,379	7,493,581	5,247,943	126,778,647	522,741,618
Net Increase (Decrease)	11,789,086	(382,866,379)	281,096,634	1,680,078,565	(5,137,235)	1,584,960,670
Other Changes in Net Assets:						
Interest allocation	1,898,501	214,919,479	228,528,776	(452,893,193)	7,546,437	
Transfers upon retirements	(64,964,806)	64,964,806				
Transfers of inactive balances	231			(231)		
Transfers of employer shares		182,720,864	(182,720,864)			
Total other changes in net assets	(63,066,075)	462,605,149	45,807,912	(452,893,423)	7,546,437	
Net Increase (Decrease) After Other Changes	(51,276,989)	79,738,770	326,904,546	1,227,185,142	2,409,202	1,584,960,670
Net Assets Held in Trust for Pension and Healthcare Benefits:						
Beginning of Year	68,021,752	3,165,281,319	3,367,521,530	614,174,792	110,955,199	7,325,954,592
End of Year	\$ 16,744,763	\$ 3,245,020,089	\$ 3,694,426,076	\$ 1,841,359,934	\$ 113,364,401	\$ 8,910,915,262

FINANCIAL SECTION

For year ending September 30, 1996

<u>Employee Savings</u>	<u>Pension Reserve</u>	<u>Employer Accumulation</u>	<u>Income</u>	<u>Health Insurances</u>	<u>Total</u>
\$ 1,266,016					\$ 1,266,016
1,353,051					1,353,051
		\$ 285,766,953		\$ 145,327,418	431,094,371
			\$ 957,597,719		957,597,719
			8,322,932		8,322,932
			(1,700,319)		(1,700,319)
			(8,042,929)		(8,042,929)
			(1,481,380)		(1,481,380)
			361		361
2,619,067		285,766,953	954,696,384	145,327,418	1,388,409,822
	\$ 321,314,081				321,314,081
				104,391,365	104,391,365
				13,350,951	13,350,951
29,978					29,978
104					104
			3,489,761		3,489,761
30,082	321,314,081		3,489,761	117,742,316	442,576,240
2,588,985	(321,314,081)	285,766,953	951,206,623	27,585,102	945,833,582
1,992,384	209,459,162	203,734,653	(420,927,082)	5,740,883	
(22,245,914)	22,245,914				
1,563			(1,563)		
	47,004,290	(47,004,290)			
(20,251,967)	278,709,366	156,730,363	(420,928,645)	5,740,883	
(17,662,982)	(42,604,715)	442,497,316	530,277,978	33,325,985	945,833,582
85,684,734	3,207,886,034	2,925,024,214	83,896,814	77,629,214	6,380,121,010
\$ 68,021,752	\$ 3,165,281,319	\$ 3,367,521,530	\$ 614,174,792	\$ 110,955,199	\$ 7,325,954,592

INVESTMENT SECTION

Michigan State Employees Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 1997**

INVESTMENT SECTION



MSERS

INVESTMENT SECTION

Report on Investment Activity

INVESTMENT POLICY GOAL

The function of the MSERS is to provide retirement, survivor and disability benefits to its members. The State Treasurer is the sole investment fiduciary and custodian of the System investments pursuant to State law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment rate of return, at a reasonable cost achieved by cultivating a motivated team of dedicated professionals.

STATE LAW

Pursuant to State Law (Section 91 of Act No. 380 of the Public Acts of 1965, as amended), the State Treasurer, State of Michigan, is the investment fiduciary for the following four State sponsored retirement systems: Michigan Public School Employees' Retirement System; Michigan State Employees' Retirement System; Michigan State Police Retirement System; and Judges' Retirement System.

The aforementioned State Law created an Investment Advisory Committee comprised of the Director of the Department of Consumer & Industry Services, the Director of the Department of Management & Budget, or their duly authorized representatives, and three public members appointed by the Governor with the advice and consent of the Senate. The committee meets quarterly and reviews investments, goals, and objectives, and may submit recommendations to the State Treasurer. The Investment Advisory Committee may also, by a majority vote, direct the State Treasurer to dispose of any holdings which, in the committee's judgement, are not suitable for the funds involved, and may, by unanimous vote, direct the State Treasurer to make specific investments.

Act No. 314 of the Public Act of 1965, as amended, authorizes the investment of assets of public employee retirement systems or plans created and established by the state or any political subdivision.

PROXY VOTING POLICY

The MSERS Proxy Voting Policy sets forth directives on the following issues: Board of Directors, Corporate Governance, and Social Issues, corporate restructurings and defenses. All proxies are reviewed and voted in accordance with the above mentioned items.

INVESTMENT RESULTS

Total Portfolio Result

For the fiscal year ended September 30, 1997, the total portfolio returned 23.2%, compared to the median of 22.7% of State plans including MSERS compiled by SEI Funds Evaluation. For the three year period the fund returned 18.2% and for the five year period the fund returned 13.6%. This compares with the median return of 17.2% for the three year period and 13.2% for the five year period.

During the fiscal year ending September 30, 1997, the nation's economy was characterized by full employment, low inflation, stable interest rates and moderate economic growth. The equity market again experienced excellent returns as the S&P 500 returned 40.5%. With a relatively stable interest rate environment, the Lehman Bros Government/Corporate bond index experienced a return of 9.6% and the Salomon Brothers Broad Grade Index experienced a return of 9.7%.

The returns were calculated using a time-weighted rate of return in accordance with standards of the Association for Investment Management and Research (AIMR) unless a modification is described in the discussion of the return.

Domestic Stocks

Domestic stock returns rose in fiscal year 1997 due to continued improvement in inflation coupled with rising corporate profitability. During this period, the domestic portfolio returned 39.7% compared with a return of 40.5% for the S&P 500 and a

INVESTMENT SECTION

Report on Investment Activity

37.7% return for the Dow Jones Industrial Average. For the most recent one year period, the market was paced by a 61.6% return on technology stocks followed by a 57.4% return on the financials and a 46.7% return on the energy sector.

Domestic equities currently represent 46.8% of the total portfolio with 36.4% of the total portfolio managed actively and 10.4% indexed. This compares with domestic equity exposure of 42.1% in 1995 and 35.6% in 1993.

International Equities

Passive exposure to international equity returns is achieved by investing in a combination of fixed income notes and equity swap agreements on foreign stock indices in developed markets. Interest on the dedicated notes is exchanged for international stock index returns, and the notional amount of the equity swap agreements is held in the approximate proportions of the Salomon Brothers Broad Market Index (BMI) Europe and Pacific Composite (EPAC) country weightings for the larger component countries. The passive investment program using swap agreements was established in 1993. During 1997, \$379 million was invested in the combination structure, bringing international equity investments to 5.3% of the total fund.

The benchmark used to evaluate international equity returns is a custom version of the Salomon Brothers BMI-EPAC adjusted for net dividends. Fifty percent of the benchmark return is hedged to the U.S. dollar and the other 50% is impacted by local currency exchange rate changes. The composite international equity return of 18.1% in 1997, compared favorably with the Salomon BMI-EPAC return of 16.7%. The composite international equity return of 13.3% for 3 years, compared well with the Salomon BMI-EPAC return of 11.3% over the same period.

Fixed Income (Excluding Mortgages)

For the fiscal year ending September 30, 1997, 25.8% of the portfolio was invested in fixed income compared to 26.6% and 30.7% for fiscal year ended 1995 and 1993 respectively. Two factors hampered the effort to achieve the thirty percent guideline. The asset allocation objective is to invest 30% of the total portfolio in fixed income.

With the decline in interest rates during the year, there was a substantial increase in the number of issues called. In addition, the continued dramatic growth in equity prices facilitated a further increase in the portfolio market value. While fixed income holdings grew by almost \$209.5 million in real terms during fiscal 1997, the relative proportion of the total portfolio remained constant due to the significant number of issues called and the overall increase in the fund's market value.

As the year progressed, rates declined and quality and maturity spreads narrowed. The fixed income focus was, therefore, on higher grade, shorter maturity issues. Even with the more defensive posture, the fixed income segment for bonds achieved a 10.4% return compared with a 9.7% return for the Salomon Brothers Broad Grade Index. This return ranked in the 27th percentile of the broad SEI universe. The three year compound rate was 10.6% compared to 9.5% for the index and a 15th percentile ranking. For five years the rates were 7.8% and 7.0% for a 23rd percentile ranking.

Real Estate Equity

As of the year ending September 30, 1997, 6.4% of the total net assets were invested in equity real estate. This compares to 6.6% and 6.0% for the fiscal years ending September 30, 1995 and 1993, respectively. The asset allocation objective is to invest 7.5% of the total net assets in equity real estate. Due to the growth of the total pension fund size during the year, certain opportunistic timing of property sales and the receipt of funds from financed properties, the percentage of total equity real estate did not materially change from the 1995 levels.

The one-year, three-year and five-year total equity real estate net returns for the fiscal year ending September 30, 1997, were 14.9%, 11.2% and 6.0%, respectively. This compares to the National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index returns of 10.9%, 9.3% and 6.1% relating to the same time periods.

The real estate investments are broadly diversified geographically, across the country, and by type of property to reduce risk. The properties are regularly valued by independent appraisers to establish market values. The market values established by

Report on Investment Activity

the appraisers are utilized in computing the real estate portfolio appreciation return. The appreciation return coupled with the income return produced from the real estate holdings are utilized to derive the equity real estate portfolio total return.

Real Estate Debt (Mortgages)

As of the year ending September 30, 1997, 0.5% of the total net assets were invested in mortgages. This compares to 2.6% and 3.7% for the fiscal years ending September 30, 1995 and 1993, respectively. The asset allocation objective is to reduce its mortgage holdings to zero percent over time.

The one-year, three-year and five-year total returns for the mortgage portfolio, for the fiscal year ending September 30, 1997, were 8.0%, 9.1% and 7.9%, respectively. This compares to Salomon Brothers Broad Grade Index returns of 9.7%, 9.5% and 7.0% relating to the same time periods. Since the majority of the mortgage portfolio is federally insured mortgages, the returns generated by the mortgage portfolio are normally expected to be less than the index.

During the year, the majority of the mortgage portfolio was sold to take advantage of the favorable low interest rate environment the economy enjoyed and the resulting premium prices for the mortgages. The sale of the mortgages resulted in realized gains to the portfolio. Current mortgage holdings are mostly comprised of federally insured multifamily mortgages and a few multi-tenant commercial office buildings. The mortgage portfolio is geographically dispersed across the country and by property type to reduce risk. Mortgages are valued monthly based upon quotes obtained from Wall Street brokerage houses that buy and sell mortgages.

Alternative Investments Division

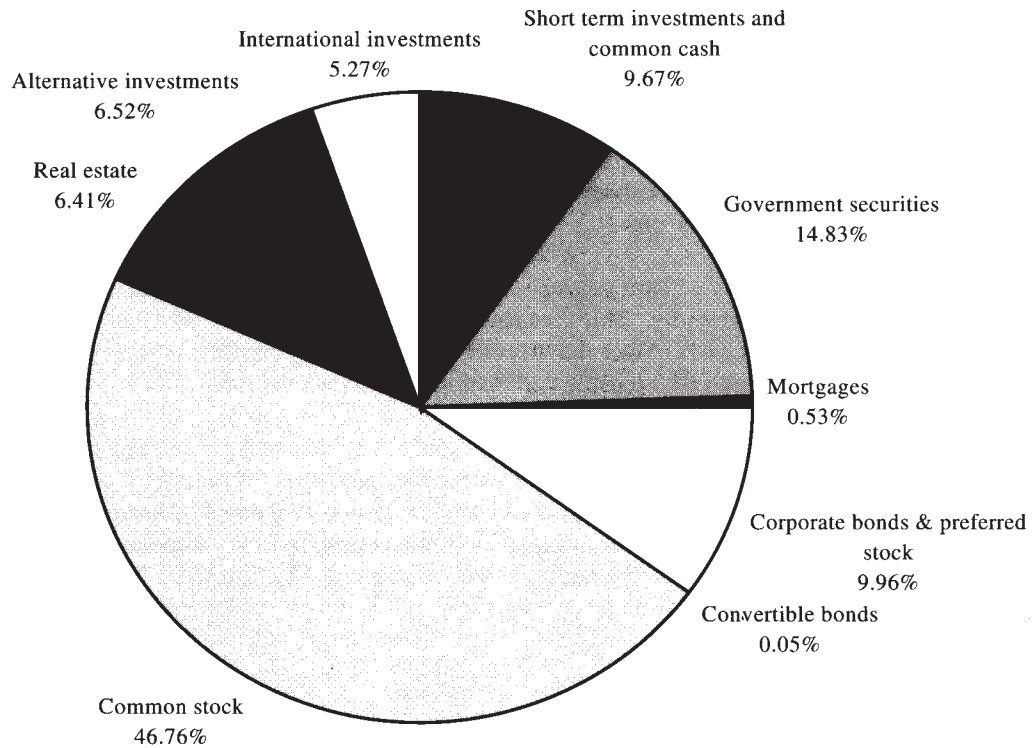
Alternative investments are investments in private equities. Through September 30, 1997, approximately 90% of those investments were made through limited partnerships. Of the investments in limited partnerships, approximately 7% were in partnerships investing internationally. The remaining 10% were direct private equity investments and public stock distributions received from the limited partnerships. The percentage of assets in alternative investments has consistently increased since 1993. As of September 30, 1997, 1995, and 1993, 6.5%, 5.7% and 4.6%, respectively, of total net assets were invested in alternative investments. The desired asset allocation for alternative investments for fiscal year 1997 was 7.5%. Due to the growth of the total pension fund's size during the year and the return of capital gains by the limited partnerships, the Alternative Investments Division was not able to meet this allocation target.

The one-year, three-year and five-year total alternative investments returns for the fiscal year ending September 30, 1997, were 16.5%, 21.9%, and 18.9%, respectively.

INVESTMENT SECTION

Report on Investment Activity

Asset Allocation



Investment Results Periods Ending September 30, 1997

Investment Category	Current Year	Annualized Rate of Return	
		3 Years	5 Years
Total Portfolio	23.2 %	18.2 %	13.6 %
Median	22.7	17.2	13.2
Domestic Equities Stock - Active/Convertible	39.7	28.6	22.0
Domestic Equities Stock - Passive	40.0	29.9	21.3
Standard & Poor's (S&P 500)	40.5	29.9	20.8
International Equities	18.1	13.3	N/A
Net Salomon Brothers BMI - EPAC 50/50	16.7	11.3	N/A
Fixed Income Bonds (U.S. Corp and Govt)	10.4	10.6	7.8
Salomon Brothers Broad Grade Index	9.7	9.5	7.0
Real Estate - Debt	8.0	9.1	7.9
Salomon Brothers Broad Grade Index	9.7	9.5	7.0
Real Estate - Equity	14.9	11.2	6.0
NCREIF	10.9	9.3	6.1
Alternative Investments	16.5	21.9	18.9

Report on Investment Activity

Largest Assets Held

Largest Stock Holdings September 30, 1997

<u>Rank</u>	<u>Shares</u>	<u>Stocks</u>	<u>Market Value</u>
1	1,917,969	General Electric Corporation	\$ 130,542,724
2	750,277	Citicorp	100,490,601
3	731,726	Microsoft Corporation	96,816,862
4	1,256,745	Compaq Computer Corporation	93,941,689
5	957,463	Schlumberger Limited	80,607,316
6	830,004	Amco Corporation	79,991,636
7	1,669,848	McDonald's Corporation	79,526,511
8	2,150,944	Chrysler Corporation	79,182,701
9	1,904,711	Phillip Morris Companies Inc	79,165,503
10	647,604	Chase Manhattan Corporation	76,417,272

Largest Bond Holdings September 30, 1997

<u>Rank</u>	<u>Par Amount</u>	<u>Bonds & Notes</u>	<u>Market Value</u>
1	\$ 85,815,000	U.S. Treasury Bonds at 9.125% Due 5-15-2009	\$ 99,062,262
2	93,086,000	U.S. Treasury 0% Callable Principle Due 11-15-2011	52,978,966
3	43,600,000	Morgan, J.P. FRN Due 3-13-2000	42,455,500
4	69,781,800	U.S. Treasury 0% Callable Principle Due 5-15-2011	41,012,857
5	23,980,000	U.S. Treasury Bonds 7.25% Due 5-15-2016	26,044,438
6	34,777,000	U.S. Treasury Tiger 14 0% Due 8-15-2004	22,805,713
7	21,800,000	FHLMC - Global 6.55% Due 11-13-2001	21,752,258
8	21,800,000	GMAC FRN Due 2-15-2000	21,735,690
9	21,800,000	First Union Corporation FRN Due 7-22-2003	21,695,578
10	21,800,000	FHLMC Debenture 6.51% Due 12-10-2001	21,691,000

A complete list of stock and bond holdings is available from the Michigan Department of Treasury.

INVESTMENT SECTION

Report on Investment Activity

Schedule of Investment Advisors & Commissions

The State Treasurer is the investment fiduciary and custodian of the retirement system's funds pursuant to state law. Outside advisors are utilized to augment the State Treasurer's internal staff in the real estate and alternative investment markets. Only 6.7% of the total investment portfolio is managed by fully discretionary outside advisors. Outside advisor's fees are netted against the partnership or trust fund income. The Michigan Department of Treasury's cost of operations applicable to the retirement system for the fiscal year amounted to \$1.4 million or less than two basis points (.02%) of the average fair market value of the portfolio.

State law created an Investment Advisory Committee comprised of the directors of the Departments of Consumer and Industry Services and Management and Budget, or their duly authorized representatives, and three public members appointed by the Governor with the advice and consent of the Senate. The public members serve without pay, but are paid actual and necessary travel and other expenses. The committee meets quarterly to review investments, goals and objectives and may submit recommendations to the State Treasurer. The committee may also, by a majority vote, direct the State Treasurer to dispose of any holding which in the committee's judgment is not suitable for the fund involved, and may by unanimous vote direct the State Treasurer to make specific investments.

Schedule of Investment Advisors

	Assets Under Management at 9-30-97 (At Market)
Alternative Investments	
Kohlberg, Kravis & Roberts	\$ 237,669,087
Hicks, Muse, Tate & Furst Inc.	42,553,959
Warburg, Pincus Counselors	19,070,634
Equity Institutional Investors, Inc.	16,099,084
Hancock Venture Partners	12,424,872
TPG Partners, L.P.	12,260,359
The Carlyle Group	8,964,023
Leonard Green & Partners, L.P.	8,203,991
The Foothill Groups	8,054,093
Kelso & Company	7,311,578
DLJ Merchant Banking Inc.	7,220,551
Accel Partners	7,166,302
Cypress Merchant Banking Partners	6,995,448
CIE Management II Limited	6,960,605
Advent International Corporation	6,687,967
Berkshire Partners	6,597,413
Healthcare Investment Corporation	6,273,312
Menlo Ventures	5,257,997
Alternative Investments representing less than .05% of plan net assets	95,759,223
Total Alternative Investments	\$ 521,530,498
Real Estate	
Raymond James Realty Advisors*	\$ 140,100,795
Equitable Realty Portfolio Management*	76,117,244
L & B Real Estate Counsel*	54,114,460
Kensington Realty Advisors*	45,184,674
Aldrich, Eastman & Waltch, Inc.	35,427,669
KOLL Investment Management (dba KB Realty Advisors)*	22,097,758
Sentinel Realty Advisors	19,851,352
John Hancock Timber Resource Group	10,456,719
Real Estate representing less than .12% of plan net assets	26,070,645
Total Real Estate	\$ 429,421,316
GRAND TOTAL	\$ 950,951,814

* Advisor does not have full discretion

INVESTMENT SECTION

Report on Investment Activity

Schedule of Investment Advisors & Commissions (Continued)

Schedule of Commissions

	Number of Share Traded	Commissions Paid Fiscal Year Ended 9-30-97 ⁽¹⁾	Average Commissions per Shares
Investment Performance Measurement Consultant:			
SEI Capital Resources Company (Directed brokerage included below)	177,343	\$ 10,640	0.06
Investment Brokerage Firms:			
Paine Webber	2,556,344	\$ 146,184	0.06
Bear Stearns	2,438,792	138,107	0.06
Salomon Brothers	2,067,534	112,380	0.05
Merrill Lynch	1,591,497	93,880	0.06
Morgan Stanley	1,187,228	68,649	0.06
Capital Inst. Service	1,056,951	63,417	0.06
Shroeder-Wertheim	978,362	56,390	0.06
Bernstein, Sanford	912,553	55,178	0.06
Smith Barney	910,250	53,742	0.06
Cowen & Company	892,642	53,440	0.06
Prudential Bache	826,401	47,033	0.06
First Boston	785,515	44,690	0.06
Bridge Trading Company	740,415	44,425	0.06
Donaldson, Lufkin	768,086	42,650	0.06
Goldman Sachs	745,709	41,252	0.06
Lehman	681,277	40,804	0.06
Citation	665,881	39,953	0.06
S & P Securities	626,663	37,600	0.06
Oppenheimer & Company	487,165	29,230	0.06
Wilshire Associates	456,972	27,418	0.06
Everen Securities	476,940	26,536	0.06
Deutch/Morgan/Greenfell	406,679	22,594	0.06
Witter, Dean/Reynolds	372,925	21,252	0.06
Cantor Fitzgerald	503,617	21,102	0.04
Montgomery Securities	270,621	15,547	0.06
Subtotal (25 highest)	23,407,019	\$ 1,343,453	0.06 ⁽²⁾
All Other Brokerage Firms	1,719,726	102,005	0.06 ⁽³⁾
Total	25,126,745	\$ 1,445,458	0.06 ⁽⁴⁾

⁽¹⁾ These amounts are included in purchase and sale prices of investments.

⁽²⁾ The average commission rate per share for the top 25 brokerage firms.

⁽³⁾ The average commission rate per share for all other brokerage firms, excluding the top 25 brokerage firm.

⁽⁴⁾ The average commission rate per share for all brokerage firms.

INVESTMENT SECTION

Report on Investment Activity

Investment Summary

	1997		1996	
	<u>Market Value*</u>	<u>Percent of Total Market Value</u>	<u>Market Value*</u>	<u>Percent of Total Market Value</u>
Fixed Income:				
Government Bonds	\$ 1,316,421,519	14.83 %	\$ 1,089,272,485	14.97 %
Corporate Bonds & Preferred Stocks	883,416,122	9.96	901,112,270	12.38
Convertible Bonds	4,183,670	0.05	4,015,890	0.06
Mortgages	47,294,284	0.53	159,095,648	2.19
Total Fixed Income	<u>\$ 2,251,315,595</u>	<u>25.37 %</u>	<u>\$ 2,153,496,293</u>	<u>29.60 %</u>
Common Stocks	4,149,553,280	46.76	3,165,664,407	43.51
Real Estate	569,128,839	6.41	466,329,181	6.41
Alternative	579,044,220	6.52	486,126,969	6.68
International Equity	468,025,104	5.27	310,706,462	4.27
Short-Term Investments**	<u>858,240,830</u>	<u>9.67</u>	<u>693,659,805</u>	<u>9.53</u>
Total	<u><u>\$ 8,875,307,868</u></u>	<u><u>100.00 %</u></u>	<u><u>\$ 7,275,983,117</u></u>	<u><u>100.00 %</u></u>

* Amounts do not include non-cash collateral on loaned securities. Short term investments are at cost, which approximates market.

** Includes equity in the State Treasurer's Common Cash Fund, but excludes amounts payable and receivable for sales and purchases of securities with a settlement date after September 30 for each fiscal year. Amount also excludes \$322,886,494 and \$174,850,722 in collateral for security lending for fiscal years 1997 and 1996 respectively.

Michigan State Employees Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 1997**

**ACTUARIAL
SECTION**



MSERS

ACTUARIAL SECTION

Actuary's Certification

THE SEGAL COMPANY

One Park Avenue
New York, New York
10016-5895
212-251-5321
FAX: 212-251-5490

Michael J. Karlin, F.S.A., M.A.A.A.
Senior Vice President & Actuary

March 2, 1998

Ms. Janet E. Phipps
Director
Department of Management and Budget
and
Retirement Board
Michigan State Employees' Retirement System
P.O. Box 30171
Lansing, Michigan 48909

Ladies and Gentlemen:

The Michigan State Employees Retirement System (MSERS) is funded on an actuarial reserve basis. The basic financial objective of MSERS is to establish and receive contributions that remain approximately level as a percentage of active member payroll over a long period of years.

Actuarial valuations are prepared annually to determine MSERS's actuarial liabilities and the employer contributions required to fund the System in accordance with the actuarial reserve funding provisions of the governing State Statute. The most recent actuarial valuation as of September 30, 1997 included a total of 99,213 members of MSERS. The actuarial value of MSERS's pension assets amounted to approximately \$7.52 billion on September 30, 1997. The actuarial assumptions used in the 1997 valuation are the same as those used in the previous annual actuarial valuation. These assumptions produce valuation results which we consider to be reasonably indicative of the plan's underlying cost.

Our actuarial valuation of MSERS as of September 30, 1997 was performed by qualified actuaries in accordance with accepted actuarial procedures. In our opinion, the calculated contribution rate meets the fundamental objectives of State law. Based on the 1997 valuation results, it is also our opinion that the Michigan State Employees Retirement System continues in sound condition, in accordance with actuarial principles of level cost financing.

Sincerely,



Michael Karlin, F.S.A., M.A.A.A.
Senior Vice President & Actuary

Summary of Actuarial Assumptions and Methods

1. The investment return rate used in making the valuations was 8% per year, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. Considering other financial assumptions, this investment return rate translates to an assumed long term real rate of return of 3% for 5 years, beginning October 1, 1994 and 5% thereafter. Adopted 1994.
2. The mortality table used in evaluating allowances to be paid was the 1983 Group Annuity Mortality Table, set forward one year for men and 2 years for women. Adopted 1994.
3. Sample probabilities of retirement with an age and service allowance are shown in Schedule 1 on page 46. Adopted 1994.
4. Sample probabilities of withdrawal from service and disability, together with individual pay increase assumptions, are shown in Schedule 2 on page 46 of this report. Adopted 1994.
5. Total active member payroll is assumed to increase 3% per year for the next 5 years, beginning October 1, 1994 and 5% thereafter. This represents the portion of the individual pay increase assumptions attributable to inflation. In effect, this assumes no change in the number of active members. Adopted 1994.
6. An individual entry age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1975. Unfunded actuarial accrued liabilities are financed over a period of 50 years and over a declining 40 year period for years beginning October 1, 1996. Adopted 1996.
7. Valuation assets (cash and investment) were valued using a five year smoothed market value method. For the 1993 valuation and later, the excess (shortfall) of actual investment income (including interest, dividends, realized and unrealized gains or losses) over the imputed income at the valuation interest rate is considered the gain (loss), which is spread over five years. Adopted 1993.
8. The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.
9. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). The assumptions used in the actuarial valuations were adopted by the retirement board after consulting with the actuary.

ACTUARIAL SECTION

Summary of Actuarial Assumptions and Methods (Continued)

SCHEDULE 1

Percent of Eligible Active Members Retiring Within Next Year

<u>Retirement Ages</u>	<u>Correction Officers</u>	<u>Conservation Officers</u>	<u>Other Members</u>
45		20 %	
48		20	
51	20 %	20	
55	25	25	23 %
58	15	15	18
61	20	20	20
64	15	15	28
67	40	100	35
70	100	100	50

SCHEDULE 2

Separation From Active Employment Before Age & Service Retirement & Individual Pay Increase Assumptions

<u>Sample Ages</u>	<u>Years Service</u>	<u>Percent of Active Members Withdrawing Within Next Year (Men and Women)</u>	<u>Percent of Active Members Becoming Disabled Within Next Year</u>	<u>Percent Increase In Pay During Next Year</u>
All	0	16.50 %		
	1	12.50		
	2	7.50		
	3	5.50		
	4	4.50		
25	5 & Over	3.40	0.01 %	9.50 %
35		2.08	0.04	4.70
45		1.42	0.26	3.75
55		1.36	0.65	3.24
65		1.36	1.15	3.00

Actuarial Valuation Data

Schedule of Active Member Valuation Data

Valuation Date Sept. 30	Number	Reported Annual Payroll*	Average Annual Pay	% Increase	Average Age	Average Service
1988	63,511	\$ 1,861,675	\$ 29,313	3.8 %	41.1 years	10.9 years
1989	66,388	1,996,039	30,066	2.6	40.9	10.7
1990	69,558	2,227,755	32,027	6.5	41.2	10.9
1991	65,595	2,236,336	34,093	6.5	42.1	11.9
1992	64,248	2,189,752	34,083		42.2	11.9
1993	63,906	2,184,972	34,190	0.3	42.6	12.1
1994	64,923	2,271,304	34,985	2.3	43.0	12.5
1995	65,133	2,348,534	36,058	3.1	43.2	12.7
1996	63,807	2,515,420	39,422	9.3	43.8	13.0
1997	55,434	2,273,203	41,007	4.0	43.7	13.1

* In thousands of dollars. Base pay only excluding 3 1/2% for overtime and shift differentials through 1995. Greater of base pay or prior year actual earnings beginning in 1996.

Schedule of Changes in the Retirement Rolls

Year Ended Sept. 30	Added to Rolls		Removed from Rolls		Rolls—End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances*	No.	Annual Allowances*	No.	Annual Allowances*		
1988	1,890	\$ 32,194	755	\$ 3,990	23,008	\$ 149,237	23.3 %	\$ 6,486
1989	1,944	24,625	765	5,067	24,187	168,795	13.1	6,979
1990	1,449	17,453	773	5,552	24,863	180,696	7.1	7,268
1991	1,493	20,168	790	5,936	25,566	194,928	7.9	7,624
1992	4,177	55,336	887	6,652	28,856	243,612	25.0	8,442
1993	1,105	18,468	786	4,887	29,175	257,193	5.6	8,816
1994	1,888	22,636	1,101	6,442	29,962	273,387	6.3	9,124
1995	1,566	23,575	966	6,268	30,562	290,694	6.3	9,512
1996	1,595	20,527	1,064	7,288	31,093	307,933	5.9	9,904
1997	6,098	121,005	1,068	7,878	36,123	421,060	36.7	11,656

* In thousands of dollars

ACTUARIAL SECTION

Prioritized Solvency Test

The MSERS funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the system 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 solvency test.

A prioritized solvency test is another 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; and (3) the liabilities for service already rendered by active members. In a system following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) is normally partially covered by the remainder of present assets. Generally, if the system has been using level-cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded is not necessarily a byproduct of level percent of payroll funding methods.

The schedule below illustrates the history of the liabilities of the system and is indicative of the MSERS policy of following the discipline of level percent of payroll financing.

Valuation Date Sept. 30	Actuarial Present Value of Accrued Liabilities (\$ in Millions)			Valuation Assets	Portion of Present Value Covered by Assets			
	(1)	(2)	(3)		(1)	(2)	(3)	(4)***
	Active Member Contributions	Retirants and Beneficiaries	Active Members (Employer Financed Portion)					
1988 [@]	\$ 89	\$ 1,341	\$ 2,146	\$ 3,642	100 %	100 %	103.1 %	101.8 %
1989	83	1,551	2,333	3,928	100	100	98.3	99.0
1990 [#]	83	1,715	2,668	4,106	100	100	86.6	92.0
1991 [#]	82	1,870	2,987	4,347	100	100	80.2	88.0
1992	83	2,413	2,984	4,533	100	100	68.3	82.7
1993 ⁺	72	2,561	3,539	5,043	100	100	68.1	81.7
1994 [@]	73	2,778	3,709	5,476	100	100	70.8	83.5
1995	72	2,751	4,038	6,090	100	100	80.9	88.8
1996	55	2,844	4,248	6,678	100	100	88.9	93.4
1997	3	4,300	3,910	7,516	100	100	82.2	91.5

[@] Revised actuarial assumptions.

[#] Benefits amended.

⁺ Revised asset valuation method.

*** Percents funded on a total valuation asset and total actuarial accrued liability basis.

Summary Of Plan Provisions

Our actuarial valuation of MSERS as of September 30, 1997 is based on the present provisions of the State employees' Retirement Act, which are summarized in this section.

Regular Retirement (no reduction factor for age)

Eligibility — Age 55 with 30 years service; or age 60 with 10 or more years service. Corrections Officers may retire at age 51 with 25 or more years service; or age 56 with 10 or more years service. Conservation Officers may retire after 25 years of service regardless of age.

Final Average Compensation — Regular retirement benefit is based on final average compensation (FAC), which is the average of highest 3 consecutive years (2 years for Conservation Officers).

Annual Amount — Total service times 1.5% of FAC. For members with 20 or more years of service, a \$3,000 minimum annual benefit is payable. Corrections Officers receive an additional temporary supplement to age 62 equal to the product of supplemental service times 0.5% of FAC. Conservation Officers retiring after 25 years receive a benefit equal to 60% of FAC.

Early Retirement (age reduction factor used)

Eligibility — Age 55 with 15 or more years service.

Annual Amount — Computed as regular retirement benefit but reduced by 0.5% for each month under age 60.

Deferred Retirement (vested benefit)

Eligibility — 10 years of service (5 years for unclassified persons in the executive or legislative branch). Benefit commences at age 60.

Annual Amount — Computed as regular retirement benefit based on service and FAC at termination.

Duty Disability Retirement:

Eligibility — No age or service requirement.

Annual Amount — Disability after age 60: Computed as regular retirement benefit with minimum benefit based on 10 years service. Disability prior to age 60: To age 60, benefit is two-thirds of FAC but limited to \$6,000 per year. Additional limitation such that benefit plus workers' compensation does not exceed final compensation. After age 60, benefit is recomputed as a regular retirement benefit with service granted for period in receipt of disability benefit before age 60 (benefit not reduced after age 60).

Non-Duty Disability Retirement:

Eligibility — 10 years of service.

Annual Amount — Computed as regular retirement benefit based on service and FAC at time of disability. Minimum annual benefit is \$600.

ACTUARIAL SECTION

Summary Of Plan Provisions (continued)

Duty Death Before Retirement

Eligibility — No age or service requirement. Also applies to duty disability retirant who dies within 3 years of disability and before age 60.

Annual Amount — Accumulated employee contributions are refunded. Surviving spouse receives annual benefit of one-third of final compensation until death. Unmarried children under age 18 each receive an equal share of one-fourth of final compensation (if no spouse each child receives one-fourth, to a maximum of one-half for all children). If no spouse or eligible children, each dependent parent receives one-sixth of final compensation. Total benefits payable are limited to \$2,400 per year. Additional limitation such that benefits plus workers' compensation does not exceed final compensation.

Non Duty Death Before Retirement

Eligibility — 10 years of service. In the case of a deceased vested former member, the survivor benefit commences when the deceased former member would have attained age 60.

Annual Amount — Computed as regular retirement benefit but reduced in accordance with a 100% joint and survivor election.

Post-Retirement Cost-of-Living Adjustments

One-time upward adjustments have been made in 1972, 1974, 1976, 1977 and 1987. Beginning in 1983, some benefit recipients share in a distribution of a portion of investment income earned in excess of 8% annually (13th check). Beginning in 1988 all benefit recipients are eligible for automatic 3% annual (non-compounded) benefit increases, with a maximum \$300 annual increase. Eligibility for the above benefits:

Retired before October 1, 1987	Greater of 13th check or the combination of the 1987 one-time adjustment and the automatic increases.
Retired on or after October 1, 1987	Automatic increases only.

Post-Retirement Health Insurance Coverage

Persons in receipt of retirement allowance (including members who did not retire directly from the System, but come from a vested deferred status), and their dependents, are eligible for 95% State-paid health insurance coverage and 90% State-paid dental and vision insurance

Member Contributions

None

Defined Contribution

New employees hired on or after March 31, 1997, become participants in Tier 2 (i.e., a defined contribution plan) rather than Tier 1 (i.e., the above described defined benefit plan).

Active members on March 30, 1997, may irrevocably elect to terminate membership in Tier 1 and become participants in Tier 2. Elections must be in writing and submitted between January 2, 1998 and April 30, 1998. Such members will become Tier 2 participants on June 1, 1998, and will have the actuarial present value of their Tier 1 accrued benefit transferred into Tier 2 by November 30, 1998.

Michigan State Employees Retirement System

**Comprehensive Annual Financial Report
for the Fiscal Year Ended September 30, 1997**

**STATISTICAL
SECTION**



MSERS

STATISTICAL SECTION

Schedule of Revenues by Source

Fiscal Year Ended Sept. 30	Member Contributions	Employer Contributions		Net Investment & Other Income	Total
		Dollars*	% of Annual Covered Payroll		
1988	\$ 4,595,320	\$ 198,535,629	10.66 %	\$ (46,800,027)	\$ 156,330,922
1989	3,065,894	162,046,886	8.12	622,558,381	787,671,161
1990	2,733,598	188,863,034	8.48	(125,829,294)	65,767,338
1991	4,416,336	227,348,243	10.17	661,760,771	893,525,350
1992	4,810,700	285,424,393	13.03	396,188,599	686,423,692
1993	4,068,696	371,902,232	17.02	562,436,683	938,407,611
1994	2,257,216	389,728,590	17.16	133,510,369	525,496,175
1995	2,260,510	422,294,609	17.98	912,938,131	1,337,493,250
1996	2,619,067	431,094,371	17.14	954,696,384	1,388,409,822
1997	12,144,153**	410,231,627	18.05	1,685,326,508	2,107,702,288

* Includes financing for early retirement pensions

** Increase is attributable to purchase of service credit in connection with "early out" retirement.

Schedule of Expenses by Type

Fiscal Year Ended Sept. 30	Benefits Payments*	Refunds and Transfers	Administrative Expenses	Total
1988	\$ 180,131,209	\$ 196,462	\$ 2,583,564	\$ 182,911,235
1989	231,499,226	204,889	2,461,919	234,166,034
1990	246,339,702	125,828	2,993,159	249,458,689
1991	271,569,768	126,406	3,607,115	275,303,289
1992	333,082,770	123,792	4,047,661	337,254,223
1993	394,557,537	99,369	3,412,142	398,069,048
1994	409,975,308	92,153	3,777,812	413,845,273
1995	406,140,322	80,453	4,268,833	410,489,608
1996	439,056,397	30,082	3,489,761	442,576,240
1997	509,645,026	7,848,649**	5,247,943	522,741,618

* Includes health insurance premiums and benefits.

** Includes transfers to defined contribution plan in connection with the "early out" retirement.

Schedule of Benefit Expenses by Type

Fiscal Year Ended Sept. 30	Regular Benefits	Disability Benefits	Supplemental Check	Health Benefits**	Total
1988	\$ 134,355,645	\$ 8,942,350		\$ 36,833,214	\$ 180,131,209
1989	153,243,799	9,928,141	\$ 15,488,627*	52,838,659	231,499,226
1990	164,701,113	12,231,653		69,406,936	246,339,702
1991	178,896,021	11,827,319		80,846,428	271,569,768
1992	212,280,362	13,850,266		106,952,142	333,082,770
1993	245,615,207	14,725,503		134,216,826	394,557,536
1994	256,660,402	16,672,201		136,642,705	409,975,308
1995	269,206,552	20,494,647		116,439,123	406,140,322
1996	284,061,320	22,017,877	15,234,884	117,742,316	439,056,397
1997	331,964,200	26,069,505	24,832,674	126,778,647	509,645,026

* Includes \$88,674 paid in March 1989 and an estimated \$15,399,953 paid in March 1990.

** Includes vision and dental benefits.

Schedule of Retired Members by Type of Benefit
September 30, 1997

Amount Monthly Benefit	Number of Retirees	Type of Retirement *								Selected Option #					
		1	2	3	4	5	6	7	8	Reg.	Opt. A	Opt. B	Opt. E	Opt. E1	Opt. E2
\$ 1 - 200	1,649	870	481	16	196	36	28	1	21	601	477	379	163	15	14
201 - 400	5,641	3,654	901	30	785	198			73	2,600	1,535	1,030	375	50	51
401 - 600	5,910	3,629	542	388	855	296		8	192	2,985	1,572	950	308	50	45
601 - 800	4,576	3,136	310	534	534	243		13	340	2,050	1,280	935	223	39	49
801 - 1,000	4,038	2,795	191	347	347	171		41	493	1,789	1,151	809	178	48	63
1,001 - 1,200	3,578	2,573	161	148	148	107		33	556	1,442	1,066	742	205	50	73
1,201 - 1,400	2,771	2,165	92	64	64	70		30	350	928	859	648	222	45	69
1,401 - 1,600	2,076	1,714	51	38	38	32		51	190	712	619	430	195	52	68
1,601 - 1,800	1,657	1,445	29	12	12	29		62	80	447	563	336	173	56	82
1,801 - 2,000	1,213	1,086	17	5	5	11		56	38	306	401	242	153	51	60
Over 2,000	3,014	2,805	24	4	4	33		105	43	745	875	692	332	159	211
Totals	36,123	25,872	2,799	434	2,988	36	1,218	400	2,376	14,605	10,398	7,193	2,527	615	785

* Type of Retirement

- 1 - Normal retirement for age & service
- 2 - Survivor payment - normal or early retirement
- 3 - Duty disability retirement (incl. survivors)
- 4 - Non-duty disability retirement (incl. survivors)
- 5 - Survivor payment - duty death in service
- 6 - Survivor payment - non-duty death in service
- 7 - Retirees with supplemental benefits for early retirement incentive factors
- 8 - Retirees with reduced benefits for early retirement reduction factors

Selected Option #

- Reg. - Straight life allowance
- Opt. A - 100% survivor option
- Opt. B - 50% survivor option
- Opt. E - Social Security equated
- Opt. E1 - Social Security equated w/100% survivor
- Opt. E2 - Social Security equated w/50% survivor option

Schedule of Average Benefit Payments

<u>Retirement Effective Dates</u>	<u>Average Monthly Benefit</u>	<u>Number of Active Retirants</u>
Period 10/01/91 to 09/30/92	\$ 8,442	28,856
Period 10/10/92 to 09/30/93	8,816	29,175
Period 10/01/93 to 09/30/94	9,124	29,962
Period 10/01/94 to 09/30/95	9,512	30,562
Period 10/01/95 to 09/30/96	9,904	31,093
Period 10/01/96 to 09/30/97	11,656	36,123

**10 Year History of Membership
Fiscal Years Ended September 30**

