Teachers Retirement Association

of the

State of Minnesota

TRA

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 1988

Teachers Retirement Association

of the

State of Minnesota

Suite 500, Gallery Building
17 West Exchange Street
St. Paul, MN 55102

Elton I. Erdahl, Executive Director

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 1988

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STATE OF MINNESOTA
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January 13, 1989

Board of Trustees
State of Minnesota
Teachers Retirement Association
St. Paul, MN 55102

This is the Annual Report of the Teachers Retirement Association of the State of Minnesota for the fiscal year ended June 30, 1988, and includes information for both the Teachers Retirement Fund and the College Supplemental Retirement Fund. This report includes for both funds the appropriate financial statements with related footnotes, plan summaries, and the opinion of the Legislative Auditor. In addition, for the Teachers Retirement Fund the Report of the Actuary is provided as well as various schedules, statistical tables and an investment summary. A listing of the investment portfolio is available upon request.

The financial statements of the funds are prepared using the accrual basis of accounting. Revenues are recorded when earned and expenditures recorded when obligations are incurred. Fixed assets are recorded at cost and depreciated over the estimated life of the asset. The actuary for the Legislative Commission on Pensions and Retirement determines the actuarial reserves under the entry age normal method. The College Supplemental Retirement Fund is a fully funded Money Purchase plan and no actuarial report is required.

Revenues

There are three major sources of revenue for the funds. These are employee and employer contributions plus investment earnings. Total revenues for the Teachers Retirement Fund for '88 were $539.4 million. This was a decrease of 18.4% over the previous year. For the College Supplemental Retirement Fund, the total of employee and employer contributions increased from $2,686,699.48 for FY '87 to $2,746,422.86 for FY '88. This was a slight increase from the previous year. Earnings of the supplemental fund are reflected in the value of the shares as determined on a monthly basis. Share values as of June 30, 1988 were $26.31 for the Income Fund, $18.35 for the Growth Fund, $12.04 for the Common Stock Index Fund, and $11.52 for the Bond Market Fund. The interest rate for the Money Market Fund was 7.273% as of June 30, 1988. The Common Stock Index account, Money Market account and Bond Market account were first made available to members of the College Supplemental Retirement Fund on January 1, 1988.

Expenditures

The expenditures of the funds consist primarily of payments made to members and beneficiaries for retirement, disability or survivor benefits. Other expenditures include refunds of member contributions upon termination of employment, if requested, and administrative expenses. For FY '88, total expenditures were $158,828,705.67 and $2,418,134.26 for the Teachers Retirement Fund and College Supplemental Retirement Fund, respectively. This represented an increase over the previous fiscal year of 15.9% for the Teachers Retirement Fund and a decrease of 5.8% for the College Supplemental Retirement Fund.

For the Teachers Retirement Fund, 735 members retired during the year compared to 1,213 during the previous year. A total of 15,892 members and beneficiaries are now receiving a monthly benefit from the fund. These benefits totaled $148,243,910.63 for FY '88, an increase of $23,091,952.00 over the previous year. Of the total benefits paid, $1,286,556.22 was paid to members under the Variable Annuity program. Members of the College Supplemental Retirement Fund are provided the option of redeeming their share accounts (including employer's matching) and purchasing an annuity benefit by placing the proceeds in the Post Retirement Investment Fund; or, if they prefer, several other redemption plans are also available to them.

Refunds of contributions plus interest to members of the Teachers Retirement Fund who ceased to render teaching service during the year totaled $5,627,523.18, a decrease from the previous year's amount of $6,856,989.16. The amount of $184,974.69 represented refunds to members participating in the Variable Annuity program. Former members of the College Supplemental Retirement Fund received refunds during the year amounting to $2,289,027.26, a decrease of $200,922.35 from the previous fiscal year. Included in the above refunds are refunds of contributions plus interest to beneficiaries of deceased members.

All administrative services are provided and paid for by the Teachers Retirement Fund; however, the College Supplemental Retirement Fund reimburses the Teachers Retirement Fund each year for the services it has received. For FY '88, administrative expenses totaled $2,183,505.82 for the Teachers Retirement Fund and $129,107.00 for the College Supplemental Retirement Fund. The cost of administration of the Teachers Retirement Fund represented 0.14% of the current covered payroll of all active members.

Funding

The total net assets of the Teachers Retirement Fund on the actuarial balance sheet increased during the past year from $3,638,835,000.00 to $3,978,898,000.00. The total required reserves as determined by the Actuary for the fund increased from $5,172,415,000.00 to $5,586,441,000.00. The comparison of net assets to required reserves shows that the funding ratio for FY '88 was 71.22%, up from the ratio for the previous year of 70.35%. This is an improvement in the funding ratio; however, the unfunded liability increased by $33,446,606.00 during the year. Even though the unfunded liability increased for the year, the Actuary has projected that the Employer additional contribution rate of 4.48% of covered payroll will provide sufficient additional funding to effectively amortize the unfunded liability of the fund by the year 2009 which is the target date for full funding of the fund. Funding for the College Supplemental Retirement Fund continues at full funding since it is a Money Purchase plan and members' contributions are matched by employer contributions on a current basis.

Investments

The investment income of the Teachers Retirement Fund and Post Retirement Fund continued to provide an important part (58.3%) of the total revenues received during FY '88. Employee contributions represented 14.0%, employer contributions 27.5%, and other revenues 0.2%. This continues to emphasize the importance of investment income to the financing needs of the retirement program. Full funding would increase the role that investment income plays in this regard and is another reason for continuing to strive toward this goal.

Professional Services

Actuarial services are provided to the Teachers Retirement Fund by the firm of Coates, Herfurth & England, Inc. of San Francisco. However, the official actuarial report of the fund is prepared by The Wyatt Company which is retained by the Legislative Commission on Pensions and Retirement for the purpose of preparing these reports for all of the statewide funds. An actuarial study of the College Supplemental Fund is not required. The office of the Attorney General provides legal counsel to the funds. The Legislative Auditor of the State conducts an annual financial audit of the funds with appropriate comments included on page 15 of this report. The State Board of Investment is responsible for all investment transactions for the funds. Further information regarding investments held by the Teachers Retirement Fund can be found under the "Investments" section of this report. All financial matters, including disbursements from the funds, are processed through the Statewide Accounting System under the supervision of the Department of Finance.

Reports to the Membership

An annual statement of account for the fiscal year ended June 30, 1988 was distributed to each active member in December, 1988. This statement provides current and cumulative information regarding salaries, contributions, and service credit. Projected and deferred retirement as well as disability benefit payment amounts are also provided for eligible members. A synopsis of the Annual Report of the Fund for the year ended June 30, 1988 will be distributed to each active member as a part of the February, 1989 newsletter.

Acknowledgments

This report was prepared through the combined efforts of the staff of the Teachers Retirement Association and is intended to fairly present the financial status of the Teachers Retirement Fund and the College Supplemental Retirement Fund. Other reliable information is also included. A copy of the report will be mailed to each public school building in the state.

Respectfully submitted,

Elton Erdahl

Elton I. Erdahl
Executive Director

BOARD OF TRUSTEES

Elected Members

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ADMINISTRATIVE STAFF

Elton I. Erdahl, Executive Director

John J. Gardner, Assistant Executive Director
Member Services and Records Division

Gary Austin, Assistant Executive Director
Finance and Systems Division

TEACHERS RETIREMENT FUND
PLAN SUMMARY

Purpose

The Teachers Retirement Association was established on July 1, 1931 by the Minnesota State Legislature. Its purpose is to improve educational service and better compensate teachers in order to make the occupation of teaching in this state more attractive to qualified persons by providing a retirement benefit schedule that rewards faithful and continued service.

Administration

The management of the Teachers Retirement Association is vested in a board of eight trustees — three are ex-officio and five are elected. The ex-officio trustees are the Commissioner of Education, the Commissioner of Finance and the Commissioner of Commerce. Four of the five elected trustees are active members and one is a retiree. Administrative management of the association is vested in an Executive Director who is appointed by the Board of Trustees. The board also appoints an actuary and utilizes legal counsel provided by the Attorney General's office.

Membership

All teachers employed in Minnesota's public elementary and secondary schools, state universities, community colleges and all other educational institutions maintained by the State (except those teachers employed by the cities of Minneapolis, St. Paul, and Duluth and by the University of Minnesota) are required to be members.

Retirement Service Credit

Service credit for benefits is earned from teaching service rendered on a full-time, part-time or substitute basis. In addition, service credit may be obtained by using accumulated sick leave or by purchasing service for a period of a qualified leave of absence. If a teacher teaches at least 170 full days in any fiscal year, credit is given for a full year of teaching service. If a teacher teaches less than 170 full days, fractional service credit is given as the ratio of the number of full days taught to 170. If a teacher teaches only a fractional part of a day, service credit is given for a full day of teaching service for each five hours taught.

Financing

Benefits are financed by employee contributions, employer contributions, investment earnings and turnover gains. Turnover gains are employer contributions released to the association when members take refunds of their own contributions.

Employee Contributions

TRA members pay a percentage of their gross annual salary as determined by their system of membership. Basic system members (without Social Security coverage) contribute 8.5% of their annual salary while coordinated system members (with Social Security coverage) contribute 4.5% of their annual salary. The basic system of membership is being phased out.

Employer Contributions

Local school districts and other TRA covered employer units provide matching contributions of 8.5% of total salary for members in the basic system and 4.5% of total salary for members in the coordinated system. In addition, the employer unit contributes an amount equal to 4.48% of total salary for amortizing the association's unfunded liability. For coordinated members the employer unit also makes the required matching contribution to the Social Security Administration.

Retirement Benefit

The retirement benefit is determined by a formula. The formula includes three component parts: the average of the highest five successive annual salaries, an accumulated percentage factor based on the total years of service credit, and the age of the member at retirement. The formula percentage factors are given below:

	Coordinated Member	Basic Member
Each year of service during the first ten	1.0 percent per year	2.0 percent per year
Each year of service thereafter	1.5 percent per year	2.5 percent per year

Variable Annuity Fund

From July 1, 1969 until June 30, 1978 some members elected to make one-half of their retirement contributions to the Minnesota Variable Annuity Fund which is authorized to invest up to 100% of assets in equities. These members receive only one-half of the full formula percentage factors for years during which Variable Annuity Fund contributions were made. However, at retirement, they receive a variable annuity benefit in addition to their formula benefit. The variable annuity benefit is based on the asset value of the member's account plus employer matching contributions and the appropriate annuity purchase rate for the attained age at retirement.

Full Normal Retirement Benefits

Normal retirement benefits are available at age 65; however, members with 30 or more years of allowable service credit are eligible for normal retirement benefits at age 62.

Reduced Early Retirement Benefits

Early retirement benefits are first available at age 55 with at least 5 years of allowable service (10 years of allowable service if termination of teaching service occurs before July 1, 1987) or at any age with 30 or more years of allowable service. The early retirement benefit is the normal retirement benefit reduced by 1/2% for each month under age 65, to and including age 60, and by 1/4% for each month under age 60.

Deferred Retirement

Members with 5 or more years of allowable service (10 years of allowable service if termination of teaching service occurs before July 1, 1987) who cease to render teaching service in schools covered by the association may have their retirement benefit deferred until they attain age 55 or older. Under the formula program, the benefit is augmented by 3% interest compounded annually.

Annuity Income Options

Monthly annuity payments are always made to the annuitant for as long as the annuitant lives. The annuitant may provide survivors benefits to designated beneficiaries contingent upon the selection of one of five annuity options listed below:

1. Life A-1, No Refund
2. Life B-1, Guaranteed Refund
3. Life C-3, 15 Year Certain
4. Life E-1, Survivorship in Full
5. Life E-2, Survivorship in Half

Post Retirement Increases

The required reserves needed to pay retirement benefits are transferred from the association's regular fund to the Minnesota Post Retirement Investment Fund at the time of retirement. Benefits may be increased periodically based on the income yield of the fund and there is a guarantee that they will never be decreased below the original amount established at retirement.

Combined Service Annuity

Any member who has a combined total of five or more years of allowable service with one or more of the Minnesota retirement funds that participate in the combined service program may elect to receive a combined service annuity upon compliance with eligibility requirements of the covered funds in which service was rendered.

Refunds

Upon termination of teaching service and application, TRA will issue a refund of a member's accumulated contributions plus 5% interest provided the member has officially resigned from employment and the appropriate application form is submitted no sooner than 30 days after termination of teaching service.

Repayment of Refunds

Members who return to teaching service, after previously withdrawing their formula program contributions may repay these contributions upon completing two years of allowable service. The repayment must include compounded interest at the annual rate of 6%.

Disability

Any active member, who becomes disabled after at least five years of allowable service is eligible to apply for a total and permanent disability benefit provided at least three of the required five years of allowable service are rendered after last becoming a member. Total and permanent disability is defined as "the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to be of long continued and indefinite duration." An indefinite duration is a period of at least one year.

Coordinated Survivor Benefits

If a coordinated member with Social Security coverage dies before retirement, the total amount of accumulated contributions plus 5% interest is paid to the surviving spouse or, if there is none, to the designated beneficiary. Any survivor benefits payable from Social Security are in addition to the TRA survivor benefit.

Basic Survivor Benefits

If an active basic member dies before retirement, survivor benefits are payable to a dependent spouse and/or dependent children. The minimum benefit is equal to 30% of the basic member's monthly average salary paid in the last full fiscal year preceding death, subject to a family maximum of $1,000.00 per month. However, if the member is not married and there are no dependent children, then the total amount of accumulated contributions plus 5% interest is paid to the designated beneficiary.

Joint and Survivor Annuity

Married members who have attained the age of 50 with at least five years of allowable service credit, or those with 30 or more years of allowable service credit regardless of age, are eligible for this survivor benefit. This monthly annuity is payable to the spouse or to a designated beneficiary in the event of the member's death prior to retirement. The amount of the Joint and Survivor Annuity is based upon the member's retirement program and the ages of the member and spouse or beneficiary on the member's date of death; however, for members with less than 30 years of allowable service credit, annuity payments cannot begin until the member would have attained at least age 55 if the member dies before age 55.

COLLEGE SUPPLEMENTAL RETIREMENT FUND
PLAN SUMMARY

The College Supplemental Retirement Plan was established by the 1967 Legislature to cover all unclassified employees of the State University Board and the Community College Board who have completed their second year of full-time service. The Supplemental Retirement Plan was designed as an incentive to keep qualified teachers at the state and community colleges. Presently, there are approximately 3,400 active and 950 inactive participants. Participation in the Supplemental Retirement Plan is mandatory for all eligible college personnel.

Members of the Supplemental Retirement Plan contribute 5% of their salary between $6,000 and $15,000 and the employer matches their contributions equally. The maximum withheld from an employee is $450 if earned salary is equal to or greater than $15,000. The employee as well as the employer contributions are posted monthly to the member's individual account. All shares are purchased and redeemed on the first of each month.

The net contributions received from members for the 1987-88 fiscal year were $1,373 million and an equal amount for the employer's matching portion.

The general ledger of the College Supplemental Retirement Fund reflects total net assets as of June 30, 1988 of $92.3 million. The administrative expenses were $129,107 for the 1987-88 fiscal year.

At the election of the member, contributions made to the College Supplemental Retirement Fund are invested in shares of the Income, Growth, Common Stock Index, Money Market or Bond Market accounts of the Minnesota Supplemental Retirement Fund administered by the State Board of Investment. If no election is made by the member, shares are automatically purchased in the Income account. The State Board of Investment computes the market value of the investments in the various accounts on a monthly basis and determines a new share value of the accounts. This market value is used for all investments and withdrawals from the fund during the month. Twice each year, each participant is entitled to indicate in writing how they wish to have their future Supplemental contributions invested. In addition, twice each year, members may transfer previously purchased shares between share accounts.

A member's account remains invested in the fund until the member retires, dies or terminates service. Certain rules govern whether the member will receive only the employee contributions or the employer's matching as well. Upon retirement at age 55 or older the member or, upon death, the beneficiary receives the market value of the account including the employer's contributions. Upon termination under age 55, if the member applies for a refund the member receives only the market value of the member's contributions and forfeits the employer's matching. However, if the member has reached the age of 55, the member may elect to purchase an annuity. Under this election, both the member's and the employer's contributions, at current market value, are used to purchase the annuity.

In cases where the member applies for a refund and forfeits the employer's matching, the forfeited amount is credited to the turnover account and is used by the fund to pay the administrative expenses.

Employee share account annual statements are mailed to the members each fall. The annual statement describes beginning and ending balances, and share account activity for the previous fiscal year.

Financial Section

STATE OF MINNESOTA
OFFICE OF THE LEGISLATIVE AUDITOR
VETERANS SERVICE BUILDING, ST. PAUL, MN 55155 • 612/296-4708
JAMES R. NOBLES, LEGISLATIVE AUDITOR

Executive Director and Board of Trustees
Teachers Retirement Association

We have examined the Balance Sheet and the Statement of Reserves Required of the Teachers Retirement Fund as of June 30, 1988 and the related Statement of Revenues, Expenses, and Changes in Fund Balance and Statement of Changes in Financial Position for the year then ended. We have also examined the Statement of Assets and Liabilities of the College Supplemental Fund as of June 30, 1988 and the related Statements of Operations and of Changes in Net Assets for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As explained in Note 2b, investments in marketable equity securities are valued at the lower of cost or market and other investments are valued at cost as required by generally accepted accounting principles. Minnesota Statutes require valuation of all securities at cost plus one-third of the unrealized capital gains or losses. Since the statutory provision deviates from generally accepted accounting principles, the basic statements are not in compliance with the statute. Note 1d contains the disclosures which must be considered together with the basic financial statements to achieve statutory reporting requirements.

In our opinion, the financial statements referred to above present fairly the financial position of the Teachers Retirement Fund and College Supplemental Fund as of June 30, 1988, the results of operations and the changes in financial position of the Teachers Retirement Fund for the year then ended, and the results of operations and changes in net assets of the College Supplemental Fund for the year then ended in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. In addition, except for the valuation of securities, as discussed in the preceding paragraph, the aforementioned financial statements are in compliance with the reporting requirements of Minnesota Statute Section 356.20.

Our examination was made for the purpose of forming an opinion on the individual fund financial statements. The Schedule of Administrative Expenses included in the financial section is presented for purposes of additional analysis and is not a required part of the financial statements of the Teachers Retirement Association. The information has been subjected to the auditing procedures applied in the examination of the financial statements and in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

James R. Nobles
Legislative Auditor

John Asmussen, CPA
Deputy Legislative Auditor

December 2, 1988

TEACHERS RETIREMENT FUND
BALANCE SHEET
June 30, 1988 and 1987

ASSETS

	1988	1987
Cash	$ 495,024.89	$ 261,443.33
Accounts Receivable	28,321,243.43	25,993,396.03
Accrued Investment Income	466,026.95	666,543.40
Investments:		
Outside Managed Pooled Accounts (Notes 2 & 7)	1,922,825,255.48	1,641,532,366.07
Short-term Cash Equivalents (Notes 2 & 7)	137,446,204.97	191,440,759.51
Equity in Investment Funds (Note 8)	1,818,370,058.43	1,674,445,712.11
Fixed Assets Net of Accumulated Depreciation	183,188.38	179,446.48
Total Assets	$ 3,908,107,002.53	$ 3,534,519,666.93

LIABILITIES AND RESERVES REQUIRED

	1988	1987
Liabilities:		
Current —		
Accounts Payable	$ 438,425.29	$ 251,827.96
Due to Other Funds	185,176.17	9,414,635.16
Accrued Compensated Absences	2,219,778.57	168,974.41
Total Liabilities	$ 2,843,380.03	$ 9,835,437.53
Fund Balance:		
Member Reserves	$ 616,435,583.40	$ 558,561,553.16
Investment Fund Reserves	1,818,370,058.43	1,674,445,712.11
Benefit Reserves	3,151,635,358.17	2,939,407,734.73
Total Reserves (Note 1)	$ 5,586,441,000.00	$ 5,172,415,000.00
Unreserved Fund Balance:		
Unfunded Actuarial Accrued Liability (Note 1)	$(1,681,177,377.50)	$(1,647,730,770.60)
Total Unreserved Fund Balance (Note 1)	$(1,681,177,377.50)	$(1,647,730,770.60)
Total Fund Balance	$ 3,905,263,622.50	$ 3,524,684,229.40
Total Liabilities and Fund Balance	$ 3,908,107,002.53	$ 3,534,519,666.93

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

TEACHERS RETIREMENT FUND
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND BALANCE
For Fiscal Years Ended June 30, 1988 and 1987

	1988	1987
Operating Revenues:		
Member Contributions (Notes 1 & 4)	$ 75,488,712.75	$ 72,867,302.96
Employer Contributions (Notes 1 & 4)	148,607,094.52	142,069,969.78
Investment Income	128,232,485.40	244,803,064.41
Distributed Income from Equity in Investment Funds (Note 8)	186,478,851.86	200,210,131.15
Other	600,954.24	807,037.75
Total Operating Revenues	$ 539,408,098.77	$ 660,757,506.05
Operating Expenses:		
Benefits Paid (Notes 1 & 5)	$ 148,243,910.63	$ 125,151,958.55
Refunds	5,627,523.18	6,856,989.16
Administrative Expenses	2,183,505.82	2,073,334.49
Investment Management Fees	2,773,766.04	2,853,548.39
Total Operating Expenses	$ 158,828,705.67	$ 136,935,830.59
Net Fund Balance Additions	$ 380,579,393.10	$ 523,821,675.46
Fund Balance, July 1, 1987	3,524,684,229.40	3,000,862,553.94
Fund Balance, June 30, 1988	$3,905,263,622.50	$3,524,684,229.40

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

TEACHERS RETIREMENT
STATEMENT OF REVENUES, EXPENSES,
For Fiscal Years

	Member
Operating Revenues:	
Member Contributions (Notes 1 & 4)	$ 75,015,749.43
Employer Contributions (Notes 1 & 4)	—0—
Investment Income	—0—
Distributed Income from Equity in Investment Funds (Note 8)	—0—
Other	—0—
Total Operating Revenues	$ 75,015,749.43
Operating Expenses:	
Benefits Paid (Notes 1 & 5)	$ —0—
Refunds	5,442,548.49
Administrative Expenses	—0—
Investment Management Fees	—0—
Total Operating Expenses	$ 5,442,548.49
Other Changes in Reserves:	
Annuities Awarded	$(13,011,077.52)
Other Transfers	1,311,906.82
Mortality	—0—
Total Other Changes	$(11,699,170.70)
Net Fund Balance Additions	$ 57,874,030.24
Change in Unfunded Accrued Liability	—0—
Fund Balance, July 1, 1987	558,561,553.16
Fund Balance, June 30, 1988	$616,435,583.40

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

FUND
AND CHANGE IN FUND BALANCES
Ended June 30, 1988 and 1987

Reserves: Investment Funds	Reserves: Benefit	Unreserved Fund Balance	Total June 30, 1988	Total June 30, 1987
$ 67,104.29	$ 405,859.03	$	$ 75,488,712.75	$ 72,867,302.96
67,104.29	148,539,990.23		148,607,094.52	142,069,969.78
—0—	128,232,485.40		128,232,485.40	244,803,064.41
186,478,851.86	—0—		186,478,851.86	200,210,131.15
—0—	600,954.24		600,954.24	807,037.75
$ 186,613,060.44	$ 277,779,288.90	$ —0—	$ 539,408,098.77	$ 660,757,506.05
$ 144,302,035.06	$ 3,941,875.57	$	$ 148,243,910.63	$ 125,151,958.55
184,974.69	—0—		5,627,523.18	6,856,989.16
96,697.24	2,086,808.58		2,183,505.82	2,073,334.49
—0—	2,773,766.04		2,773,766.04	2,853,548.39
$ 144,583,706.99	$ 8,802,450.19	$ —0—	$ 158,828,705.67	$ 136,935,830.59
$ 99,131,044.33	$ (86,119,966.81)	$	$	$
10,930.54	(1,322,837.36)			
2,753,018.00	(2,753,018.00)			
$ 101,894,992.87	$ (90,195,822.17)	—0—	—0—	—0—
$ 143,924,346.32	$ 178,781,016.54	$	$ 380,579,393.10	$ 523,821,675.46
—0—	33,446,606.90	(33,446,606.90)		
1,674,445,712.11	2,939,407,734.73	(1,647,730,770.60)	3,524,684,229.40	3,000,862,553.94
$1,818,370,058.43	$3,151,635,358.17	$(1,681,177,377.50)	$3,905,263,622.50	$3,524,684,229.40

TEACHERS RETIREMENT FUND
STATEMENT OF CHANGES IN FINANCIAL POSITION
For Fiscal Years Ended June 30, 1988 and 1987

	1988	1987
Resources Provided by:		
From Operations —		
Net Operating Income	$380,579,393.10	$523,821,675.46
Item Not Requiring Resources Currently:		
Depreciation Expense	28,348.93	28,958.52
Total Resources Provided	$380,607,742.03	$523,850,633.98
Resources Used by:		
Current Year Acquisition of Equipment	$ 32,090.83	$ 56,332.38
Net Increase in Working Capital	380,575,651.20	523,794,301.60
Total Resources Used	$380,607,742.03	$523,850,633.98

Elements of Net Increase (Decrease) in Working Capital:

	Year Ended June 30,		Increase
	1988	1987	(Decrease)
Current Assets:			
Cash	$ 495,024.89	$ 261,443.33	$ 233,581.56
Accounts Receivable	28,321,243.43	25,993,396.03	2,327,847.40
Accrued Investment Income	466,026.95	666,543.40	(200,516.45)
Investments —			
Outside Managed Pooled Accounts (Notes 2 & 7)	1,922,825,255.48	1,641,532,366.07	281,292,889.41
Short-term Cash Equivalents (Notes 2 & 7)	137,446,204.97	191,440,759.51	(53,994,554.54)
Equity in Investment Funds (Note 8)	1,818,370,058.43	1,674,445,712.11	143,924,346.32
Total Current Assets	$3,907,923,814.15	$3,534,340,220.45	
Current Liabilities:			
Accounts Payable (Note 2)	$ 438,425.29	$ 251,827.96	$ (186,597.33)
Due to Other Funds	2,219,778.57	9,414,635.16	7,194,856.59
Accrued Compensated Absences	185,176.17	168,974.41	(16,201.76)
Total Current Liabilities	$ 2,843,380.03	$ 9,835,437.53	
Working Capital	$3,905,080,434.12	$3,524,504,782.92	$380,575,651.20

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

COLLEGE SUPPLEMENTAL RETIREMENT FUND
STATEMENT OF ASSETS AND LIABILITIES
June 30, 1988 and 1987

	1988	1987
Assets:		
Cash and Cash Equivalents	$ 226.62	$ 88,411.92
Accrued Interest Income	.21	16.98
Accrued Employer's Contribution	900.00	—0—
Accounts Receivable	—0—	6,630.34
Participation in the Minnesota Supplemental Retirement Fund (Notes 9 & 10):		
Income account shares	55,741,902.93	55,929,092.00
Growth account shares	33,791,752.81	37,607,308.00
Common stock index account shares	101,843.01	—0—
Bond market account shares	518,988.98	—0—
Money market account shares	2,283,041.02	—0—
Total Assets	$92,438,655.58	$93,631,459.24
Liabilities:		
Accounts payable	$ 129,107.00	$ —0—
Total Liabilities	$ 129,107.00	$ —0—
Net Assets	$92,309,548.58	$93,631,459.24

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

COLLEGE SUPPLEMENTAL RETIREMENT FUND
STATEMENT OF CHANGES IN NET ASSETS
June 30, 1988 and 1987

	1988	1987
Beginning Balance	$93,631,459.24	$81,122,447.71
Additions:		
From Investment Activities:		
Net realized gain from redemption of shares	$ 1,472,117.62	$ 1,617,397.46
Distribution to withdrawing members	(1,472,117.62)	(1,617,397.46)
Increase (decrease) in unrealized appreciation	(3,136,590.05)	10,762,512.46
Net other income (expense)	(81,640.38)	44,622.82
Increase (decrease) in net assets derived from investment activities	$(3,218,230.43)	$10,807,135.28
From Capital Share Transactions (exclusive of amounts allocated to investment income):		
Net contributions from members (Note 9)	$ 1,373,211.43	$ 1,343,349.74
Net employer's matching contribution (Note 9)	1,373,211.43	1,343,349.74
Total contributions	$ 2,746,422.86	$ 2,686,699.48
Less members' accounts refunded	850,103.09	984,823.23
Increase (decrease) in net assets derived from capital share transactions	$ 1,896,319.77	$ 1,701,876.25
Net increase (decrease) in net assets	$(1,321,910.66)	$12,509,011.53
Ending Balance	$92,309,548.58	$93,631,459.24

STATEMENT OF OPERATIONS
June 30, 1988 and 1987

	1988	1987
Realized and Unrealized Gain (Loss) on Investments:		
Realized gain from redemption of shares:		
Proceeds from sales	$ 2,322,220.71	$ 2,602,220.69
Cost of shares redeemed	(850,103.09)	(984,823.23)
Net Realized Gain	$ 1,472,117.62	$ 1,617,397.46
Unrealized appreciation of investments:		
End of period	$55,212,908.28	$58,349,498.33
Beginning of period	(58,349,498.33)	(47,586,985.87)
Increase in Unrealized Appreciation	(3,136,590.05)	10,762,512.46
Total Net Realized and Unrealized Gain on Investments	$(1,664,472.43)	$12,379,909.92
Other Income and Expense:		
Income:		
Employer contributions forfeited (Note 9)	$ 33,193.45	$ 83,172.08
Short-term investment income	14,273.17	9,050.74
	$ 47,466.62	$ 92,222.82
Expense:		
Administrative expenses	$ 129,107.00	$ 47,600.00
Net Other Income and Expense	$ (81,640.38)	$ 44,622.82

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

NOTES TO THE FINANCIAL STATEMENTS

1. Plan Description

a. General

The State of Minnesota Teachers Retirement Association is the administrator of a multi-employer, cost sharing Teachers Retirement Fund (TRF) and the single-employer College Supplemental Retirement Fund (CSRF). Both the TRF and the CSRF are considered part of the State of Minnesota financial reporting entity and are included in the state's financial reports as pension trust funds.

At June 30, the number of employer units participating in TRF was as follows:

	1988	1987
Independent school districts	438	437
Joint powers units	45	45
State agencies, colleges, universities	50	48
Professional organizations	7	6
Total employer units	540	536

All teachers employed in Minnesota's public elementary and secondary schools, state universities, community colleges and all other educational institutions maintained by the State (except those teachers employed by the cities of Minneapolis, St. Paul and Duluth and by the University of Minnesota system) are required to be TRF members. At June 30, TRF membership consisted of:

	1988	1987
Retirees, disabilitants and beneficiaries receiving benefits	15,892	15,459
Terminated employees with deferred vested benefits	1,878	1,926
Total	17,770	17,385
Current employees:		
Vested	41,420	41,069
Non-vested	21,906	20,214
Total	63,326	61,283

b. Benefits

TRA provides retirement benefits as well as death and disability benefits. All benefits vest after 5 years of credited service. Normal retirement is at age 65, or age 62 with 30 or more years of service. Employees with 5 years of credited service may retire at age 55 or older (any age with 30 years of service) and receive a reduced retirement benefit. Benefits are based upon the following formula percentages:

	Coordinated Member	Basic Member
Each year of service during the first ten	1.0% per year	2.0% per year
Each year of service thereafter	1.5% per year	2.5% per year

The formula percentage is applied to the average of the highest five successive annual salaries. The benefit is payable for life with the amount of the benefit determined by the selection of one of five available annuity payment plans.

c. Funding of Pension Costs

Pension costs of the TRF are funded from contributions made to the association by members and their employers. Members of the fund contribute an amount equal to 4.5 percent of their salary if they are in the Coordinated Plan and 8.5 percent of their salary if they are in the Basic Plan. Coordinated members have elected to be covered by Social Security and basic members are not covered. All new members of the fund are mandatorily covered by Social Security. Employers' contributions to the fund match the contributions of the members: 4.5 percent and 8.5 percent of the salaries of coordinated and basic members, respectively. Minn. Statutes, Section 354.42, Subd. 5, currently requires an additional employer contribution of 4.48 percent of the members' salaries for the purpose of amortizing the unfunded liability of the fund.

d. Actuarial Valuation

In order to determine the rate of contributions to TRF, the actuary of the Legislative Commission on Pensions and Retirement is required by Minnesota Statute to calculate the actuarial liability of TRF under the entry age normal cost method of funding. Under this method, the total actuarial liability of the fund was $5,586,441,000.00 and net assets were $3,905,263,622.50 based on equity investments at the lower of cost or market value. On this basis, required reserves were 69.9% funded and the unfunded liability was $1,681,177,377.50. The actuary also is required to provide this information based upon cost value of assets plus 1/3 of the amount of any unrealized gains or losses in investments. Under this method, the value of net assets is $3,978,898,000.00 and the total liabilities remain at $5,586,441,000.00. This data results in a funding ratio of 71.22% and total accrued unfunded liabilities of $1,607,543,000.00.

This funding information was determined as part of an actuarial valuation at June 30, 1988. Significant actuarial assumptions used include: (a) a rate of return on the investment of present and future assets of 8 percent per year compounded annually; (b) projected salary increases of 6½ percent per year compounded annually; and (c) post retirement increases to be funded from earnings in excess of the 5 percent assumed annual earnings rate of the Post Retirement Investment Fund.

2. Summary of Significant Accounting Policies

a. Basis of Accounting

The accompanying financial statements include the transactions of the TRF and the CSRF reported on the accrual basis of accounting.

b. Investment Strategy

Investments of the TRF are shown on the financial statements at the lower of cost or market value for equity investments and amortized cost for fixed income investments. Assets of the TRF are pooled with those of five other statewide retirement funds and placed with Outside Investment Managers under the supervision of the State Board of Investment (SBI). Other funds included are the Minnesota State Retirement System, Public Employees Retirement Association, Public Employees Police and Fire Fund, Highway Patrol Retirement Fund, and the Judges Retirement Fund. Approximately $363 million of regular TRF assets are actively managed by nine outside equity investment managers. Approximately $786 million is invested in a passive equity index fund. The assets in the index fund are managed by an outside manager and designed to match the investment return of a broad based equity market index. The fixed income portfolio is placed with six outside managers and has a value of approximately $512 million as of June 30, 1988.

The internal SBI staff handles the direct investment of the remaining assets of the fund with approximately $59 million invested in Venture Capital Pools, $186 million in Real Estate Fund Pools, $38 million in Resource Fund Pools, and approximately $137 million in short-term cash equivalent investments. All of the account and trust functions for the investments handled by the Outside Managers are provided by State Street Bank and Trust Company of Boston. The same functions are provided for the Post Retirement Investment Fund and other SBI staff investments by the First Bank of St. Paul. The cost and market value of TRF's investments as of June 30, 1988 are shown in Note 7.

The investments of the CSRF are shown at the market value of the fund's participation in the five available investment accounts of the Minnesota Supplemental Retirement Fund (MSRF), consistent with the financial statement of the MSRF prepared by the State Board of Investment. The cost of members' MSRF accounts is shown in Note 10.

c. Authorized Investments

Minnesota Statutes Section 11A.24 broadly restricts retirement fund investments to obligations and stocks of United States and Canadian governments, their agencies and their registered corporations; short-term obligations of specified high quality; restricted participation as a limited partner in venture capital, real estate or resource equity investments; and restricted participation in registered mutual funds.

d. Risk Categories

Investments are categorized to give an indication of the level of risk that is assumed. Risk category 1 includes investments that are insured or registered, or for which the securities are held by the state or its agent in the state's name. Risk category 2 includes uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the state's name. Risk category 3 includes uninsured and unregistered investments for which the securities are held by the broker or dealer or by its trust department or agent but not in the state's name.

All TRF investments are included in risk category 1, except for approximately $10 million in repurchase agreements of the Short Term Investment Pool and the Minnesota Post Retirement Investment Fund which are included in risk category 3, because the underlying securities are held by the broker or dealer. The state's investment risk for these repurchase agreements is reduced by a SBI policy which limits transactions to those with primary government securities dealers whose net excess capital is greater than $200,000,000.

3. Funding Status and Progress

The amount shown below as "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess TRF's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public retirement systems. The measure is independent of the actuarial funding method used to determine contributions to the TRF, discussed in Note 1d.

The pension benefit obligation was determined as part of an actuarial valuation at June 30, 1988. Significant actuarial assumptions used are the same as those used to compute the entry age normal cost funding figures in Note 1d.

At June 30, 1988, the unfunded pension obligation was $771,537,377 as follows:

Pension Benefit Obligation:	
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$1,756,944,000
Current employees — accumulated employee contributions including allocated investment income	1,137,137,000*
Employer-financed vested	1,523,777,000
Employer-financed non-vested	258,943,000
Total Pension Benefit Obligation	$4,676,801,000
Net assets available for benefits at cost (Market Value is $4,190,079,000)	3,905,263,623
Unfunded pension benefit obligation	$ 771,537,377

*Estimated.

No change in plan provisions resulted in changes to the liability of the fund

4. Contributions Required and Contributions Made

TRF's funding policy provides for periodic contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Level percentage of payroll contribution rates are determined by using the entry age normal cost actuarial funding method described in Note 1d. TRF also uses the level percentage of payroll method to amortize the unfunded liability over a closed 30-year period ending June 30, 2009. The current payroll contribution rates are stated in Note 1c.

Contributions totaling $224,095,807.27 ($148,607,094.52 employer and $75,488,712.75 employee) were made in accordance with the actuarially determined contribution requirements. These contributions consisted of: (a) $150,977,425.50 normal cost, and (b) $73,118,381.77 amortization of the unfunded actuarial accrued liability.

5. Post Retirement Adjustments

Included under Employer Contributions is the amount of $1,500,520.00 appropriated to TRF during the 1988 fiscal year under provisions of Laws 1987, Chapter 404 to provide lump sum payments on December 1, 1987 to persons receiving benefits under laws in effect prior to July 1, 1973. The amount of $1,500,520.00 was distributed to 3,178 persons during the fiscal year ended June 30, 1988. The calculation of the individual payments was made by multiplying the number of years of allowable service credit by $20.00 for each year of service.

6. Historical Trend Information

Historical trend information designed to provide information about the TRF's progress made in accumulating sufficient assets to pay benefits when due is presented on page 28.

7. Value of Investments

Fixed Income Investments shown on the Balance Sheet of the TRF at a cost of $511,716,073.44 had a market value computed by the State Board of Investment on June 30, 1988 of $501,853,807.34.

Equity investments are shown on the Balance Sheet at the lowest of cost or market value. A summary of these values for the various equity investments is as follows:

	Cost	Market
External Indexed Equity Pool	$785,933,301	$961,909,448
External Active Managed Equity Pools	362,642,640	389,160,629
Internal Venture Capital Pool	58,784,024	58,888,909
Internal Real Estate Fund Pool	165,794,146	197,531,411
Internal Resource Fund Pool	37,955,072	33,368,644

Short term investments are placed in cash equivalent investments and cost and market values are the same amount.

8. Investment Funds

The TRF participates in two investment funds whose assets are managed for TRF by the State Board of Investment. TRF's participation in the Minnesota Post Retirement Investment Fund (MPRI Fund) and Variable Annuity Fund (VA Fund) as of June 30, 1988 was $1,645,711,000.32 and $172,659,058.11, respectively. Investment income was $183,589,823.03 for the MPRI Fund, and $2,889,028.83 for the VA Fund.

9. College Supplemental Retirement Fund Membership

The College Supplemental Retirement Fund was established in 1967 to cover unclassified employees of the State University Board and the Community College Board who have completed their second year of full-time service. Members of the fund contribute 5 percent of their wages between $6,000 and $15,000, to a maximum annual contribution of $450. The employer matches the members' contributions equally. When members withdraw from the fund prior to becoming eligible for benefits, they receive a refund in the amount of the market value of the investments purchased with their contributions. An amount equal to the market value of the employer's matching contributions for withdrawing members reverts to the fund. The reverted amount is applied first to pay administrative expenses. The balance is allocated annually to the accounts of the members remaining in the fund.

10. Participation in the Minnesota Supplemental Retirement Fund

Members in the College Supplemental Retirement Fund have funds invested in one of five available options. These are: an Income Account, a Growth Account, (and effective January 1, 1988) a Common Stock Index Account, a Money Market Account and a Bond Market Account. Funds are invested in the Income Account unless a member elects one of the other options. Members may elect twice annually to transfer funds from one option to another. The market value of these accounts is computed monthly by the State Board of Investment. The cost of participation in the College Supplemental Retirement Fund as of June 30, 1988, and market value based on July 1, 1988 share values are as follows:

Account	Total Cost	Shares Owned	Share Value	Market Value
Income	$23,078,337.73	2,118,909.0913	$26.31	$55,741,902.93
Growth	12,978,197.18	1,842,160.9253	18.35	33,791,752.81
Common Stock Index	51,498.32	8,459.9785	12.04	101,843.01
Bond Market	225,791.62	45,087.7784	11.52	518,988.98
Money Market	890,795.63	2,283,041.1700	1.00	2,283,041.02

ANALYSIS OF FUNDING PROGRESS
(Dollars in Thousands)

Year Ended June 30	(1) Net Assets Available for Benefits*	(2) Pension Benefit Obligation	(3) Percentage Funded (1) ÷ (2)	(4) Unfunded Pension Benefit Obligation (2) — (1)	(5) Annual Covered Payroll	(6) Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4) ÷ (5)
1985	$2,542,751	$3,614,856	70.3%	$1,072,105	$1,310,748	81.8%
1986	3,000,863	4,054,734	74.0%	1,053,871	1,406,797	74.9%
1987	3,524,684	4,464,496	78.9%	939,812	1,503,546	62.5%
1988	3,905,264	4,849,460	80.5%	944,196	1,594,391	59.2%

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

*At cost (see Note 7).

TEN YEAR SUMMARY OF REVENUE BY SOURCE

Year Ended June 30	Member Contributions	Employer Contributions	Net Investment Income	Other	Total
1979	$39,385,392	$ 66,540,533	$ 58,744,335	$(1,693,227)	$162,977,033
1980	47,421,916	76,155,142	85,602,062	3,582,230	212,761,350
1981	50,561,297	81,885,618	146,632,458	249,500	279,328,873
1982	54,738,770	91,079,638	157,944,494	2,698,452	306,461,354
1983	70,486,064	69,462,210	200,795,674	500,557	341,244,505
1984	60,259,615	102,643,810	183,621,802	461,908	346,987,135
1985	64,224,898	125,067,070	232,724,757	580,674	422,597,399
1986	68,203,337	134,298,853	368,917,920	596,378	572,016,489
1987	72,867,303	142,069,970	445,013,195	807,038	660,757,506
1988	75,488,713	148,607,095	314,711,337	600,954	539,408,099

TEN YEAR SUMMARY OF EXPENDITURES BY TYPE

Year Ended June 30	Retirement Benefits	Survivor Benefits	Disability Benefits	Refunds	Administrative Expenses	Other	Total
1979	$ 31,059,553	$ 608,415	$ 784,977	$ 5,611,206	$1,020,617	$ (238)	$ 39,084,530
1980	34,111,072	654,958	960,912	6,483,691	978,100	1,695,330	44,884,063
1981	38,128,835	727,344	1,110,105	6,062,075	1,091,290	1,785,748	48,905,397
1982	44,545,530	910,500	1,254,222	8,496,531	1,318,953	1,677,199	58,202,935
1983	52,984,178	1,027,066	1,478,222	9,742,259	1,466,044	1,718,120	68,415,889
1984	63,158,815	1,285,531	1,638,989	18,956,482	1,918,330	2,936,033	89,894,180
1985	78,843,390	1,414,162	1,709,737	9,774,883	1,900,528	2,452,049	96,094,749
1986	98,349,930	1,667,494	1,830,285	7,408,533	1,968,114	2,680,416	113,904,772
1987	121,444,548	1,894,172	1,813,239	6,856,989	2,073,334	2,853,548	136,935,830
1988	144,210,986	2,079,182	1,953,743	5,627,523	2,183,506	2,773,766	158,828,706

COMPARATIVE ADMINISTRATIVE EXPENSES
For the Years Ended June 30, 1988 and 1987

	1988	1987
Salaries	$1,317,206.94	$1,294,640.82
Employer Contributions to State Employees Retirement	1,952.22	1,888.29
Employer Contributions to Teachers Retirement Association	112,264.51	109,381.60
Employer Contributions to Social Security	92,210.55	90,002.53
Insurance Contributions	105,150.43	74,274.26
Actuarial Services	87,345.62	2,705.00
Audit Fees	38,840.00	31,608.00
Department Head Expenses	1,249.45	1,037.01
Depreciation of Office Furniture and Equipment	32,807.45	28,958.52
Dues and Subscriptions	1,986.10	1,616.50
Duplicating and Printing Expense	69,454.91	57,649.66
Grants and Subsidies	2,853.90	3,042.95
Lease of Office and Storage Space	109,229.46	38,136.94
Legal Fees	26,424.45	16,160.80
Medical Services	14,790.32	12,416.25
Minnesota Unemployment Compensation	2,583.77	—0—
Postage	115,007.79	137,805.17
Repairs and Maintenance	18,805.41	20,428.35
Stationery and Office Supplies	21,826.03	19,280.97
Tabulating	67,741.11	72,234.99
Telephone	17,144.69	16,826.75
Travel — Director and Staff	15,194.29	13,169.89
Travel — Trustees	9,890.74	12,176.74
Workers' Compensation	265.35	226.59
Miscellaneous Administrative Expenses	2,519.98	22,732.34
State Indirect Costs	35,047.00	39,183.00
Office Improvements	3,679.58	5,981.00
Sub-totals	$2,323,472.05	$2,123,564.92
Less Reimbursements from Supplemental Retirement Fund and Various State Agencies for Administrative Services Provided	139,966.23	57,091.79
Total Net Administrative Expenses	$2,183,505.82 (a)	$2,066,473.13 (b)

(a) Of this amount $96,697.24 has been allocated to TRA's participation in the Minnesota Variable Annuity Investment Fund.

(b) Of this amount $126,709.63 has been allocated to TRA's participation in the Minnesota Variable Annuity Investment Fund.

Administrative expenses, disability benefits, and survivors' benefits are paid from the fund, specifically the turnover gain (state's contribution retained on refunds) within the fund.

Investments Section

INVESTMENT SUMMARY

The investment portfolio for the active members of the Teachers Retirement Fund has a book value of approximately $2.06 billion in the regular portfolio with additional holdings of approximately $172.6 million in the Variable Annuity Fund. In addition, TRA's share of the assets of the Minnesota Post Retirement Investment Fund from which retiree benefits are paid is approximately $1.65 billion. The assets of the Teachers Retirement Association are invested under the direction and authority of the State Board of Investment (SBI). The State Board of Investment is comprised of Governor Rudy Perpich, State Auditor Arne H. Carlson, State Treasurer Michael A. McGrath, Secretary of State Joan Anderson Growe, and Attorney General Hubert H. Humphrey III. Mr. Howard Bicker serves as Executive Director of the Board.

An Investment Advisory Council consisting of 17 members serves as advisor to the State Board of Investment and includes ten members who are experienced in general investment matters and appointed by the State Board. The other members are the Commissioner of Finance; the Executive Director of the Minnesota State Retirement System; the Executive Director of the Public Employees Retirement Association; the Executive Director of the Teachers Retirement Association; a retiree currently receiving benefits from the Post Retirement Investment Fund; and two public employees who are active members of the funds whose assets are invested by the State Board. The retiree and the public employees are appointed by the Governor for four year terms. The members of the council are as follows:

Henry H. Adams, Jr.	Executive Sec. and Investment Mgr., Mpls. Teachers Retirement Fund
John E. Bohan	Vice President, Pension Investments, The Pillsbury Co.
James R. Eckmann	Assistant Treasurer, Dayton-Hudson Corporation
Elton Erdahl	Executive Director, Teachers Retirement Association
Paul L. Groschen	Executive Director, Minnesota State Retirement System
Kenneth F. Gudorf	CFO and Vice President of Finance, The Carlson Cos., Inc.
James M. Hacking	Executive Director, Public Employees Retirement Association
Vernell Jackels	Active Employee Representative
David B. Jeffery	Vice President and President Manager, Shearson Lehman, Hutton
Judith W. Mares	Board Appointee
Malcolm W. McDonald**	Director and Corporate Secretary, Space Center, Inc.
Gary R. Norstrem	City Treasurer, City of St. Paul
Joseph T. Rukavina	Active Employee Representative
Thomas J. Triplett	Commissioner, Minnesota Department of Finance
Raymond B. Vecellio	Retiree Representative
Deborah Veverka	Manager, Pension Investments, Honeywell, Inc.
Jan Yeomans*	Director, Benefit Funds and Financial Markets, 3M Co.

*Chair
**Vice-Chair

Richards & Tierney, Inc. of Chicago are consultants to the State Board of Investment. All investments made by the State Board of Investment (SBI) are governed by the prudent person rule and other standards codified in Minnesota Statutes Chapter 11A.

Statewide Retirement Funds

The pension contributions of most active TRA members are invested through the Statewide Retirement Funds. The SBI has selected a long term asset allocation plan for the Statewide Funds that strives to keep 60% in common stock, 22% in bonds, 10% in real estate, 2.5% in venture capital, 2.5% in resource funds and 3% in cash. On June 30, 1988 the actual asset mix of Statewide Funds was 57.5% common stock, 19.5% bonds, 8.9% real estate, 2.6% venture capital, 1.2% resource funds and 10.3% cash. All assets of the Statewide Retirement Funds are managed by outside money management firms selected and retained by the SBI. More information on the individual stock and bond managers is shown below.

The Statewide Retirement Funds produced a total rate of return for fiscal year 1988 of -0.3%. Over the last five years the Statewide Funds have generated a cumulative return of 78%, excluding alternative assets. It is important to note that "total return" includes not only interest and dividend earnings plus realized gains and losses on investments, but also unrealized gains and losses on investments still held in the portfolio. If unrealized gains and losses are not considered, the Statewide Funds generated 6.75% earnings for fiscal year 1988.

Post Retirement Investment Fund

The pension assets of most retired TRA members are invested through the Post Retirement Investment Fund (Post Fund). The large majority of the Post Fund is invested in a dedicated bond portfolio that generates sufficient cash from principal and interest payments to finance current monthly annuities. Assets not needed for the dedicated bond portfolio are invested in common stock. On June 30, 1988, the Post Fund had an asset mix of 10.5% common stock, 82.5% bonds and 7.0% cash. Nearly all assets of the Post Fund are managed by SBI staff.

In fiscal year 1988 the Post Fund generated realized earnings sufficient to provide a 6.9% benefit increase to eligible retirees beginning January 1, 1989. Over the last five years benefit increases generated by the Post Retirement Fund have equaled 7.9% on an annualized basis.

Variable Annuity Fund

The pension assets of some TRA members are invested in the Variable Annuity Fund. This fund strives to maintain a long term asset allocation of 95% common stock and 5% cash. On June 30, 1988 the actual asset mix of the Variable Fund was 80.0% common stock and 20.0% cash. This fund is invested entirely by the same group of active common stock managers retained for the Basic Retirement Funds.

Total Portfolio Investment Income

The total investment portfolio of the Teachers Retirement Fund on June 30, 1988 was valued at $3.88 billion. As mentioned previously, these assets were invested in three separate portfolios: $2.06 billion in the Basic Retirement Funds, $1.65 billion in the Post Retirement Investment Fund and $0.17 billion in the Variable Annuity Fund.

Total combined investment income for the year was $314.7 million. The interest rate attributable to each fund was calculated as follows:

• Statewide Funds	6.75%
• Post Retirement Fund	11.92%
• Variable Annuity Fund	1.70%

Stock and Bond Money Managers Retained by the SBI

The stock manager performance for FY 1988 was as follows:

	Manager Portfolio Return
Fred Alger	—9.0%
Alliance Capital	—0.8
Beutel Goodman	—1.5
BMI Capital	—5.3
Forstmann Leff	—1.3
IDS Advisory	—9.5
Investment Advisers	—4.9
Lieber & Company	—3.9
Waddell & Reed	0.9
Wilshire Associates (index fund)	—5.9
Statewide Funds' Common Stock Segment	—5.2
Stock Segment Performance Standards	
Wilshire 5000	—5.9%
TUCS Median Managed Equity Portfolio	—4.3
Inflation	3.9%

The annualized return for the stock portfolio for the last 5 years averaged 12.0%.

A summary of bond manager performance for FY 1988 was as follows:

	Portfolio Return
Investment Advisers	7.4%
Lehman Management	7.2
Miller, Anderson & Sherrerd	7.8
Morgan Stanley	7.9
Peregrine Capital	7.6
Western Asset	9.1
Statewide Funds' Bond Segment	7.9%
Bond Segment Performance Standards	
Salomon Broad Investment Grade Bond Index	8.1%
TUCS Median Managed Bond Portfolio	7.7
Inflation	3.9%

The annualized return for the bond portfolio for the last 5 years averaged 12.1%.

College Supplemental Retirement Fund

The assets of the College Supplemental Retirement Fund may be invested at the option of the member in any of five different investment accounts in the Minnesota Supplemental Investment Fund.

	Asset Mix	FY '88 Return
Income Share Account	60% stock 35% bonds 5% cash	0.4%
Growth Share Account	95% stock 5% cash	—4.9%
Common Stock Index Account	100% stock	—5.9%
Bond Market Account	100% bonds	8.0%
Money Market	100% cash equivalents	7.3%

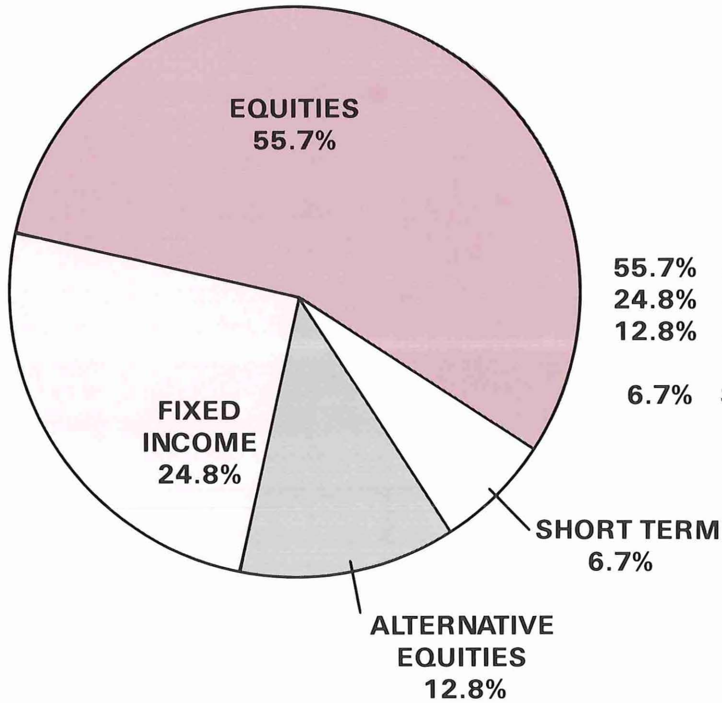
The Minnesota Supplemental Investment Fund is managed by the SBI. Nearly all assets in the Supplemental Fund are managed by outside money management firms retained by the SBI.

Additional Information

A listing of the individual investments of the Statewide Retirement Funds, the Variable Annuity Fund, the Post Retirement Investment Fund or the College Supplemental Retirement Fund is not included in this report. However, these listings are available, upon request, from the Teachers Retirement Association.

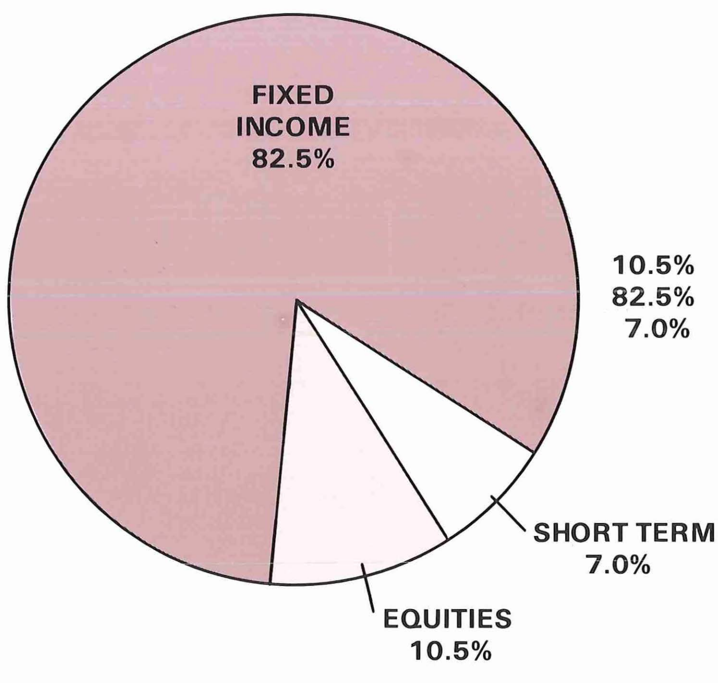
PORTFOLIO DISTRIBUTION
TEACHERS RETIREMENT FUND
June 30, 1988

REGULAR FUND



55.7% EQUITIES
24.8% FIXED INCOME
12.8% ALTERNATIVE EQUITIES
6.7% SHORT TERM

POST RETIREMENT INVESTMENT FUND



10.5% EQUITIES
82.5% FIXED INCOME
7.0% SHORT TERM

COMPARATIVE STATEMENT OF EARNINGS*
For the Years Ended June 30, 1988 and 1987

UNAUDITED

	1988	1987
Investment Earnings:		
Interest on Cash Equivalent Investments	$ 9,906,798.74	$ 8,059,063.90
Bonds	—0—	863,070.30
Managed Pooled Accounts	112,385,800.52	191,076,479.82
Net Gain on Sales of Pools	6,133,242.93	44,792,589.11
Earnings from Investments	$128,425,842.19	$244,791,203.13
Miscellaneous Interest Income	15,955.29	11,861.28
Total Earnings and Interest Income	$128,441,797.48	$244,803,064.41
Less Investment Management Fees	2,773,766.04	2,853,548.39
Total Net Investment Income	$125,668,031.44	$241,949,516.02
Less Transfers to MPRIF	209,312.08	—0—
Undistributed Excess Earnings	3,434,484.32	16,160,018.08
Total Income Available for Distribution	$128,893,203.68	$258,109,534.10
Distribution:		
Teachers' Deposits	$ 79,948,369.18	$158,467,725.66
Employer Contributions	47,351,798.44	96,249,313.85
Excess Earnings Reserve	1,593,036.06	3,392,494.59
Total Distribution	$128,893,203.68	$258,109,534.10

*Regular TRA Fund does not include earnings of TRA's participation in the Minnesota Post Retirement Investment Fund (MPRIF) and Minnesota Variable Annuity Investment Fund which were $183,589,823.03 and $2,889,028.83, respectively.

Interest rate 6.75% for 1988, 15.75% for 1987.

SUMMARY OF INVESTMENTS*
As of June 30, 1988

UNAUDITED

	Book Value	Subtotals	Total Book Value	Percent
Fixed Income Investments:				
External Fixed Income Pools	$511,716,073.44			
Total Fixed Income Pools		$ 511,716,073.44		
Total Fixed Income Investments			$ 511,716,073.44	24.8%
Equity Investments:				
External Indexed Equity Pool	$785,933,301.06			
External Active Managed Equity Pools	362,642,640.02			
Total External Equity Pool		$1,148,575,941.08		
Internal Venture Capital Pool	$ 58,784,023.73			
Internal Real Estate Fund Pool	165,794,145.60			
Internal Resource Fund Pool	37,955,071.63			
Total Internal Equity Pool		262,533,240.96		
Total Equity Investments			$1,411,109,182.04	68.5%
Short Term Investment:				
Short Term Cash Equivalents	$137,446,204.97			
Cash Equivalents		$ 137,446,204.97		
Total Short Term Investments			$ 137,446,204.97	6.7%
Total Investment Owned			$2,060,271,460.45	100.0%

*Regular TRA Fund does not include investments in the Minnesota Post Retirement Fund and Variable Annuity Investment Fund.

Fixed Income Investments are shown above at cost value. The market value of these funds as of June 30, 1988 is $501,853,807.34.

Equity Investments are also shown above at cost value. The market values of these investments are as follows: External Indexed Equity Pool $961,909,448.19; External Active Managed Equity Pools $389,160,628.67; Internal Venture Capital Pool $58,888,908.98; Internal Real Estate Fund Pool $197,531,411.19; and Internal Resource Fund Pool $33,368,643.76.

General Information Regarding Investment of Funds:

Investments for the State Teachers Retirement Association are made by the State Board of Investment and External Managers as prescribed by law, and are made only in such securities as are duly authorized legal investments in accordance with Minnesota Statutes, Section 352.061. For the Regular TRA Fund, the State Treasurer acts as custodian of securities invested by the State Board of Investment and State Street Bank and Trust of Boston acts as custodian of securities invested by the External Managers. The First Bank of St. Paul acts as custodian of securities invested by the State Board of Investment for the Post Retirement Investment Fund. Examination and verification of securities held by the custodians is made periodically by the State Legislative Audit Commission.

Actuarial Section

THE *Wyatt* COMPANY

AN INDEPENDENT WORLDWIDE BENEFITS
AND COMPENSATION CONSULTING FIRM

ACTUARIAL SERVICES
COMPENSATION PROGRAMS
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MINNEAPOLIS, MINNESOTA 55437

(612) 921-8700

EMPLOYEE BENEFITS
EMPLOYEE COMMUNICATIONS
RISK MANAGEMENT
INSURANCE CONSULTING
HEALTH CARE CONSULTING

December 19, 1988

Legislative Commission on
Pensions and Retirement
55 State Office Building
St. Paul, Minnesota 55155

RE: TEACHERS RETIREMENT ASSOCIATION FUND

Commission Members:

We have prepared an actuarial valuation of the Fund as of July 1, 1988 based on membership and financial data supplied by the Fund.

We certify that to the best of our knowledge and belief this actuarial valuation was performed in accordance with the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on August 22, 1988.

Respectfully submitted,

THE WYATT COMPANY

Robert E. Perkins
Robert E. Perkins, FSA
Consulting Actuary

Michael C. Gunvalson
Michael C. Gunvalson, ASA
Associate Actuary

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

1. **Mortality:** Active participants, retirants, and disabilitants — 1971 Group Annuity Mortality Table set back eight years for both males and females.

2. **Retirement Age:** Age 62, or if over age 62, one year from valuation date.

3. **Separation:** Graduated rates illustrated in table of sample values below.

4. **Disability:** Graduated rates illustrated in table of sample values below.

Annual Separation Rate Per 10,000 Employees

	Death		Withdrawal		Disability	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
20	4	4	1,770	1,770	4	4
30	5	5	1,160	1,160	6	6
40	9	9	550	550	8	8
50	20	20	10	10	17	17
60	65	65	10	10	63	63

5. **Expenses:** Prior year expenses expressed as percentage of prior year payroll (0.30% of payroll).

6. **Asset Valuation:** Cost value plus one-third of unrealized gains and losses.

7. **Investment Return:** Pre-retirement — 8% per annum compounded annually.
Post-retirement — 5% per annum compounded annually.

8. **Salary Increases:** 6½% per year.

9. **Active Member Payroll Growth:** 6½% per year.

10. **Actuarial Cost Method:** Entry Age Normal cost method with normal cost expressed as level percentage of future earnings. Actuarial gains and losses are recognized in the unfunded actuarial accrued liability which is amortized by the level percent of payroll method.

VALUATION REPORT HIGHLIGHTS
(Dollars in Thousands)

	July 1, 1987 Valuation	July 1, 1988 Valuation
A. Contributions (Table 6)		
1. Statutory Contributions — Chapter 354 % of Payroll	13.71%	13.69%
2. Required Contributions — Chapter 356 % of Payroll	13.36%	13.29%
3. Sufficiency (Deficiency) (A1-A2)	0.35%	0.40%
B. Funding Ratios		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	$3,638,835*	$3,978,898*
b. Current Benefit Obligations (Table 3)	$4,464,496*	$4,849,460*
c. Funding Ratio (a/b)	81.51%	82.05%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	$3,638,835*	$3,978,898*
b. Actuarial Accrued Liability (Table 4)	$5,172,415*	$5,586,441*
c. Funding Ratio (a/b)	70.35%	71.22%
3. Projected Benefit Funding Ratio (Table 3)		
a. Current and Expected Future Assets	$6,637,583*	$7,205,992*
b. Current and Expected Future Benefit Obligations	$6,535,871*	$7,082,622*
c. Funding Ratio (a/b)	101.56%	101.74%
C. Plan Participants		
1. Active Members		
a. Number	61,283	63,326
b. Projected Annual Earnings	$1,601,809	$1,752,322
c. Average Annual Earnings (Actual $)	$26,138	$27,671
d. Average Age	41.9	42.1
e. Average Service	11.5	11.6
2. Others		
a. Service Retirements	14,582	14,974
b. Disability Retirements	217	221
c. Survivors	830	869
d. Deferred Retirements	1,926	1,878
e. Terminated Other Non-vested	13,106	13,310
f. Total	30,661	31,252

*Includes Variable Annuity Fund of $171,630 in 1987 and $172,659 in 1988.

ACTUARY'S COMMENTARY

Purpose

The purpose of an actuarial valuation is to determine the financial status of the Fund. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

Report Highlights

The statutory contributions for the Teachers Retirement Association Fund are sufficient this year. The margin of sufficiency has increased from 0.35% in 1987 to 0.40% in 1988. According to this valuation a contribution rate of 13.29% is required to comply with Minnesota Law.

The financial status of the Fund can be measured by three different funding ratios:

- The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. This ratio is based on Statement No. 5 of the Governmental Accounting Standards Board. This year's ratio is 82.05%. The corresponding ratio for the prior year was 81.51%.

- The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used. For 1988 the ratio is 71.22%, which is an increase from the 1987 value of 70.35%.

- The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This ratio is greater than 100% and verifies that the current statutory contributions are adequate.

The funding ratios listed above include the Variable Annuity Fund of $172,659,000 in the assets and liabilities.

Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gains and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets," the latter phrase will be used in the remainder of this report.

This Fund participates in the MPRIF (i.e., Minnesota Post Retirement Investment Fund). The asset value shown for MPRIF on line A3 is set equal to the MPRIF Reserves reported on line D3 for both market and cost value purposes. This reserve is based on a 5% interest assumption.

Investment performance by SBI (i.e., State Board of Investment) above the 5% level is not shown in the assets but will be added in on January 1, 1989 when benefits will be increased for those annuitants who have been receiving payments for 18 months. Next year's valuation will include the 1989 benefit increase in determining the MPRIF value.

After the MPRIF liability has been calculated for each participating Fund, SBI will determine each Fund's portion of the excess earnings for the January benefit increase as well as the Fund's allocated market share of MPRIF. An approximation of those values on June 30, 1988 is provided below:

MPRIF Reserves	$1,645,711,000
Reserves Plus Excess Earnings	1,756,000,000
MPRIF Market Value	1,772,000,000

Actuarial Balance Sheet (Table 3)

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

Current funding levels are evaluated by comparing Current Assets on line A to Current Benefit Obligations on line D5. Current and future funding levels are evaluated by comparing the Total Current and Expected Future Assets on line C to the Total Current and Expected Future Benefit Obligations on line F.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

- **For active members —** Salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.

- **For non-active members —** The discounted value of benefits, including augmentation in cases where benefits have not commenced.

GASB Disclosure

The Current Benefit Obligation amounts in Table 3 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation."

The July 1, 1988 Pension Benefit Obligation reported in Table 3 is reformatted for GASB reporting purposes in the following table.

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$1,756,944,000
Current Employees —	
Accumulated employee contributions including allocated investment income	1,137,137,000*
Employer-financed vested	1,523,777,000
Employer-financed nonvested	258,943,000
Total Pension Benefit Obligation	$4,676,801,000

*Estimated

Actuarial Cost Method (Table 4)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 4) to the actuarial balance sheet (Table 3) illustrates the two techniques for allocating liabilities of active members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities on the basis of service. The method used in Table 4 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 3 and line A6, column 1, of Table 4).

An Unfunded Actuarial Accrued Liability is computed under the Entry Age Normal Actuarial Cost Method by comparing the liabilities allocated to past service (Actuarial Accrued Liability) to the Current Assets. This amount, line B3, is funded over the remaining years to the amortization date by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 6.5% each year because that is the assumed rate of increase in payroll. Although the payment schedule will be adequate to amortize the existing unfunded, the lower payments in the earlier years will not be sufficient to cover the interest on the unfunded liability. After a few years the annual payment will cover the interest and also repay a portion of the unfunded.

Sources of Actuarial Gains and Losses (Table 5)

The assumptions used in making the calculations using the Entry Age Normal Actuarial Cost Method are based on long-term expectations. Each year the actual experience will deviate from the long-term expectation. The major sources of gain and loss which have been identified are:

- A gain from salaries where the average increase was 4.2% compared to the expected 6.5%.
- A loss from Non-MPRIF Assets (i.e., Current Assets reduced by MPRIF Reserves) because the return was 4.5% instead of the assumed 8%.
- A loss of $7,482,000 (reported on line D5) due to members retiring earlier than anticipated and a loss of $5,371,000 because the liability for terminated members who retired during the year increased.
- A loss of $7,145,000 (reported on line D5) due to non-vested terminated members returning to active status with larger liabilities.

Contribution Sufficiency (Table 6)

This report answers the question of "How adequate are the Statutory Contributions?" by comparing the Statutory Contributions to the Required Contributions.

The Required Contributions, set forth in Chapter 356, consist of:

- Normal Costs based on the Entry Age Normal Actuarial Cost Method
- A Supplemental Contribution for amortizing any Unfunded Actuarial Accrued Liability
- An Allowance for Expenses

Table 6 shows the Fund has a contribution sufficiency since the Statutory Contribution Rate is 13.69% compared to the Required Contribution Rate of 13.29%.

Projected Cash Flow (Table 7)

Table 7 illustrates the anticipated cash flow over the amortization period. The cash flow begins with the Non-Variable, Non-MPRIF Assets, which are the Current Assets reduced by the Variable Annuity Fund and the MPRIF Reserves. Contributions are then added based on the present statutory rates for employers and employees. As members become eligible for payments from MPRIF, an amount of reserve is transferred to SBI. The other disbursements represent benefit payments and expenses made directly by the Fund.

This projected cash flow assumes that future payrolls increase by 6.5%. This is the only table in the report where new members are assumed to be hired in order to replace those who terminate from the active group. This open group method provides a more realistic picture of future cash flow. The statutory interest rate of 8% is used to project future investment return.

The amounts transferred to MPRIF will be affected by the number of members who reach the assumed retirement age during a given year. The amount for 1990 is large because it includes those already over age 62 who are assumed to retire a year from the valuation date.

Changes in Actuarial Assumptions

This valuation does not reflect any changes in actuarial assumptions since the prior valuation.

Changes in Plan Provisions

This valuation does not reflect any changes in benefits since the prior valuation.

Table 1

ACCOUNTING BALANCE SHEET
(Dollars in Thousands)

July 1, 1988

	Market Value	Cost Value
A. Assets		
1. Cash, Equivalents, Short-Term Securities	$ 137,941	$ 137,941
2. Investments		
a. Fixed Income	501,861	511,716
b. Equity	1,641,866	1,411,109
c. Real Estate	0	0
3. Equity in MN Post-Retirement Investment Fund (MPRIF) and Variable Annuity Fund	1,818,370	1,818,370
4. Other	28,971	28,971
B. Total Assets	$4,129,009	$3,908,107
C. Amounts Currently Payable	$ 2,843	$ 2,843
D. Assets Available for Benefits		
1. Member Reserves	$ 616,436	$ 616,436
2. Employer Reserves	1,691,360	1,470,458
3. MPRIF and Variable Annuity Reserves	1,818,370	1,818,370
4. Non-MPRIF Reserves	0	0
5. Total Assets Available for Benefits	$4,126,166	$3,905,264
E. Total Amounts Currently Payable and Assets Available for Benefits	$4,129,009	$3,908,107

F. Determination of Actuarial Value of Assets (Net of Variable Annuity Reserves)

1. Cost Value of Assets Available for Benefits (D5) -$172,659		$3,732,605
2. Market Value (D5) -$172,659	$3,953,507	
3. Cost Value (D5) -$172,659	$3,732,605	
4. Market Over Cost (F2-F3)	$ 220,902	
5. 1/3 of Market Over Cost (F4)/3		73,634
6. Actuarial Value of Assets (F1+F5) (Same as "Current Assets")		$3,806,239

Table 2

CHANGES IN ASSETS AVAILABLE FOR BENEFITS
(Dollars in Thousands)

July 1, 1988

	Market Value	Cost Value
A. Assets Available at Beginning of Year	$3,867,137	$3,524,684
B. Operating Revenues		
1. Member Contributions	$ 75,489	$ 75,489
2. Employer Contributions	148,607	148,607
3. Investment Income	128,232	128,232
4. MPRIF and Variable Annuity Income	186,479	186,479
5. Net Realized Gain (Loss)	0	0
6. Other	601	601
7. Net Change in Unrealized Gain (Loss)	(121,551)	0
8. Total Revenue	$ 417,857	$ 539,408
C. Operating Expenses		
1. Service Retirements	$ 144,210	$ 144,210
2. Disability Benefits	1,954	1,954
3. Survivor Benefits	2,079	2,079
4. Refunds	5,628	5,628
5. Expenses	4,957	4,957
6. Other	0	0
7. Total Disbursements	$ 158,828	$ 158,828
D. Changes in Reserves	0	0
E. Assets Available at End of Year	$4,126,166	$3,905,264

ACTUARIAL BALANCE SHEET
(Dollars in Thousands)

July 1, 1988

A. Current Assets (Table 1, F6)	$3,806,239
B. Expected Future Assets	
1. Present Value of Expected Future Statutory Supplemental Contributions	1,730,913
2. Present Value of Future Normal Costs	1,496,181
3. Total Expected Future Assets	3,227,094
C. Total Current and Expected Future Assets	$7,033,333

	Non-Vested	Vested	Total
D. Current Benefit Obligations			
1. Benefit Recipients			
a. Retirement Annuities		$1,594,680	$1,594,680
b. Disability Benefits		29,294	29,294
c. Surviving Spouse and Child Benefits		58,060	58,060
2. Deferred Retirements with Future Augmentation		55,480	55,480
3. Former Members without Vested Rights		19,430	19,430
4. Active Members			
a. Retirement Annuities	$ 32,231	2,507,381	2,539,612
b. Disability Benefits	137,123	0	137,123
c. Survivors' Benefits	87,515	0	87,515
d. Deferred Retirements	2,074	81,443	83,517
e. Refund Liability Due to Death or Withdrawal	0	72,090	72,090
5. Total Current Benefit Obligations	$258,943	$4,417,858	$4,676,801
E. Expected Future Benefit Obligations			$2,233,162
F. Total Current and Expected Future Benefit Obligations			$6,909,963
G. Current Unfunded Actuarial Liability (D5-A)			$ 870,562
H. Current and Future Unfunded Actuarial Liability (F-C)			$ (123,370)

Table 4

DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) AND SUPPLEMENTAL CONTRIBUTION RATE
(Dollars in Thousands)

July 1, 1988

	Actuarial Present Value of Projected Benefits (1)	Actuarial Present Value of Future Normal Costs (2)	Actuarial Accrued Liability (3)=(1)—(2)
A. Determination of Actuarial Accrued Liability (AAL)			
1. Active Members			
a. Retirement Annuities	$4,556,636	$1,121,027	$3,435,609
b. Disability Benefits	224,691	70,256	154,435
c. Survivors Benefits	142,897	39,203	103,694
d. Deferred Retirements	122,248	54,562	67,686
e. Refunds Due to Death or Withdrawal	106,547	211,133	(104,586)
f. Total	$5,153,019	$1,496,181	$3,656,838
2. Deferred Retirements with Future Augmentation	$ 55,480		$ 55,480
3. Former Members without Vested Rights	19,430		19,430
4. Annuitants in MPRIF	1,645,711		1,645,711
5. Recipients not in MPRIF	36,323		36,323
6. Total	$6,909,963	$1,496,181	$5,413,782
B. Determination of Unfunded Actuarial Accrued Liability (UAAL)			
1. AAL (A6)			$5,413,782
2. Current Assets (Table 1, F6)			3,806,239
3. UAAL (B1-B2)			$1,607,543
C. Determination of Supplemental Contribution Rate			
1. Present Value of Future Payrolls Through the Amortization Date of July 1, 2009			$30,799,168
2. Supplemental Contribution Rate (B3/C1)			5.22%

Table 5

CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
(Dollars in Thousands)

Year Ending June 30, 1988

A. UAAL at Beginning of Year	$1,533,580
B. Change Due to Interest Requirements and Current Rate of Funding	
1. Normal Cost and Expenses	$ 133,129
2. Contribution	(224,096)
3. Interest on A, B1, and B2	119,048
4. Total (B1+B2+B3)	28,081
C. Expected UAAL at End of Year (A+B4)	$1,561,661
D. Increase (Decrease) Due to Actuarial Losses (Gains) Because of Experience Deviations from Expected	
1. Salary Increases	$ (72,434)
2. Investment Return	61,473
3. MPRIF Mortality	2,753
4. Mortality of Other Benefit Recipients	(1,042)
5. Other Items	55,132
6. Total	$ 45,882
E. UAAL at End of Year Before Plan Amendments and Changes in Actuarial Assumptions (C+D6)	$1,607,543
F. Change in Actuarial Accrued Liability Due to Plan Amendments	$ 0
G. Change in Actuarial Accrued Liability Due to Changes in Actuarial Assumptions	$ 0
H. UAAL at End of Year (E+F+G)	$1,607,543

DETERMINATION OF CONTRIBUTION SUFFICIENCY
(Dollars in Thousands)

July 1, 1988

	% of Payroll	$ Amount
A. Statutory Contributions — Chapter 354		
1. Employee Contributions	4.60%	$ 80,663
2. Employer Contributions	9.09%	159,167
3. Total	13.69%	$239,830
B. Required Contributions — Chapter 356		
1. Normal Cost		
a. Retirement Benefits	5.83%	$102,215
b. Disability Benefits	0.36%	6,285
c. Survivors	0.21%	3,664
d. Deferred Retirement Benefits	0.32%	5,561
e. Refunds Due to Death or Withdrawal	1.05%	18,434
f. Total	7.77%	$136,159
2. Supplemental Contribution Amortization by July 1, 2009 of UAAL of $1,607,543	5.22%	$ 91,471
3. Allowance for Expenses	0.30%	$ 5,257
4. Total	13.29%	$232,887
C. Contribution Sufficiency (Deficiency) (A3-B4)	0.40%	$ 6,943

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1988 is $1,752,322

Table 7

PROJECTED CASH FLOW
(Dollars in Thousands)

Fiscal Year	Statutory Contributions	Transfers to MPRIF	Other Disbursements	Investment Return	Non-Variable Non-MPRIF Assets Year End
1988					$ 2,160,528
1989	$ 239,830	$ 4,293	$ 27,879	$ 181,149	2,549,335
1990	254,830	198,467	26,659	205,135	2,784,174
1991	271,196	78,132	26,673	229,390	3,179,955
1992	288,593	105,396	27,437	260,627	3,596,342
1993	307,071	138,710	28,479	293,303	4,029,527
1994	326,517	205,525	30,096	325,998	4,446,421
1995	347,066	254,657	32,185	358,123	4,864,768
1996	368,951	283,298	34,692	391,220	5,306,949
1997	392,333	334,021	37,358	425,394	5,753,297
1998	417,230	379,719	40,559	460,142	6,210,391
1999	443,654	433,722	44,086	495,465	6,671,702
2000	472,198	444,355	47,972	532,931	7,184,504
2001	502,799	493,523	51,899	573,055	7,714,936
2002	535,465	544,852	56,521	614,559	8,263,587
2003	570,277	619,519	61,698	656,649	8,809,296
2004	607,379	703,871	66,788	698,212	9,344,228
2005	646,879	834,398	72,444	737,140	9,821,405
2006	688,954	867,189	78,474	775,444	10,340,140
2007	733,759	821,974	84,463	820,304	10,987,766
2008	781,484	895,747	90,559	870,828	11,653,772
2009	832,289	1,171,775	96,619	914,858	12,132,525
2010	886,400	1,302,960	102,819	949,827	12,562,973
2011	944,024	1,167,886	109,113	991,719	13,221,717
2012	1,005,398	1,115,600	114,845	1,048,735	14,045,405
2013	1,070,762	1,046,926	120,478	1,119,767	15,068,530

SUMMARY OF ACTUARIAL AND UNFUNDED ACTUARIAL LIABILITIES
(Dollars in Thousands)

Valuation as of June 30	Aggregate Actuarial Liabilities	Valuation Assets	Assets as a % of Actuarial Liabiliities	Unfunded Accrued Liabilities (UAL)	Annual Active Member Payroll	UAL as a % of Annual Active Member Payroll
1979	$2,080,174	$1,064,238	51.2%	$1,015,936	$ 899,989	112.9%
1980	2,361,121	1,232,115	52.2	1,129,006	971,670	116.2
1981	2,690,946	1,462,539	54.4	1,228,407	1,040,186	118.1
1982	3,108,086	1,710,751	55.0	1,397,335	1,129,420	123.7
1983	3,472,264	1,983,579	57.1	1,488,685	1,146,640	129.8
1984	3,716,432	2,147,937	59.6	1,568,495	1,232,357	127.3
1985	4,166,116	2,585,778	62.1	1,580,338	1,310,748	120.6
1986	4,681,573	3,104,264	66.3	1,577,309	1,406,797	112.1
1987	5,172,415	3,638,835	70.4	1,533,580	1,503,546	102.0
1988	5,586,441	3,978,898	71.2	1,607,543	1,594,391	100.8

SOLVENCY TEST
(Dollars in Thousands)

	Aggregate Accrued Liabilities for:				Portion of Actuarial Accrued Liabilities Covered by Reported Assets		
Valuation as of June 30	(1) Member Contri-butions	(2) Retirees and Beneficiaries	(3) Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
1979	$260,114	$ 389,509	$1,430,551	$1,064,238	100%	100%	28.9%
1980	308,865	434,753	1,617,503	1,232,115	100%	100%	30.2%
1981	330,976	492,829	1,868,053	1,462,539	100%	100%	34.2%
1982	367,654	559,186	2,181,246	1,710,751	100%	100%	35.9%
1983	415,525	673,364	2,383,375	1,983,579	100%	100%	37.5%
1984	441,349	819,210	2,455,873	2,216,248	100%	100%	38.9%
1985	475,439	1,060,246	2,630,431	2,585,778*	100%	100%	39.9%
1986	515,553	1,275,542	2,890,478	3,104,264*	100%	100%	45.4%
1987	558,562	1,534,798	3,079,055	3,638,835*	100%	100%	50.2%
1988	616,436	1,682,034	3,287,971	3,978,898*	100%	100%	51.1%

*Includes 1/3 of value of investments over cost.

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Year Ended June 30	Active Members	Annual Payroll	Annual Average	% Increase In Average Pay
1979	64,360	$ 899,989,326	$13,984	6.4%
1980	65,423	971,670,262	14,852	6.2
1981	65,189	1,040,186,471	15,956	7.4
1982	63,573	1,129,420,339	17,766	11.3
1983	57,831	1,146,640,563	19,827	11.6
1984	58,190	1,232,356,505	21,178	6.8
1985	58,854	1,310,747,913	22,271	5.2
1986	60,149	1,406,795,764	23,389	5.0
1987	61,283	1,503,701,316	24,537	4.9
1988	63,326	1,594,391,290	25,178	2.6

SCHEDULE OF RETIRANTS AND BENEFICIARIES

Year Ended June 30	Added During Year	Removed During Year	Number End of Year	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
1979	724	272	9,429	$ 32,452,707	7.4%	$3,442
1980	830	290	9,969	36,217,593	11.6	3,633
1981	857	307	10,519	41,604,598	14.9	3,955
1982	911	312	11,118	48,387,451	16.3	4,352
1983	1,070	326	11,862	57,207,585	18.2	4,823
1984	1,123	318	12,667	67,629,085	18.2	5,339
1985	1,393	427	13,633	81,967,289	21.2	6,012
1986	1,356	429	14,560	101,847,710	24.3	6,995
1987	1,354	455	15,459	125,151,959	22.9	8,096
1988	889	456	15,892	148,243,910	18.5	9,328

Statistical Section

SUMMARY OF CHANGES IN MEMBERSHIP 1987-88

ACTIVE AND INACTIVE MEMBERS

	Active		Inactive	
	Basic	Coordinated	Basic	Coordinated
Total June 30, 1987	1,239	60,044	294	14,738
Additions	—	6,583	22	38
Deletions				
Service Retirement	(79)	(571)	(61)	(22)
Disability	—	(49)	—	—
Death	(4)	(129)	—	—
Refunds	(1)	(2,627)	(7)	(12)
Writeoffs	—	—	—	(882)
Transfer to Inactive	—	(1,080)	—	1,080
Total June 30, 1988	**1,155**	**62,171**	**248**	**14,940**

	Basic System	Coordinated System	Total
Active	1,155	62,171	63,326
Inactive	248	14,940	15,188
Total	**1,403**	**77,111**	**78,514**

ANNUITANTS — REGULAR FUND

	Basic System			Coordinated System		
	Men	Women	Total	Men	Women	Total
Total Annuitants June 30, 1987	1,592	3,404	4,996	3,364	6,058	9,422
Members Retired During Year	83	58	141	259	335	594
Annuities Cancelled	(1)	—	(1)	—	(1)	(1)
Annuitants Deceased During Year	(33)	(91)	(124)	(62)	(153)	(215)
Total Annuitants June 30, 1988	1,641	3,371	5,012	3,561	6,239	9,800
Annuitants Not Receiving Warrants June 30, 1988	(1)	(1)	(2)	(4)	(6)	(10)
Total Active Annuitants June 30, 1988	**1,640**	**3,370**	**5,010**	**3,557**	**6,233**	**9,790**

SUMMARY OF CHANGES IN MEMBERSHIP 1987-88 (Continued)

BENEFICIARIES OF MEMBERS DECEASED PRIOR TO RETIREMENT

	Joint & Survivor Annuities			Basic Survivor Benefits			
	Men*	Women*	Total	Men	Women	Children	Total
Total June 30, 1987	125	27	152	5	86	9	100
Added During Year	12	4	16	—	—	—	—
Terminated During Year	—	(1)	(1)	—	(1)	(4)	(5)
Total June 30, 1988	**137**	**30**	**167**	**5**	**85**	**5**	**95**

SUPPLEMENTAL AND VARIABLE ANNUITANTS

	Supplemental Retirement Annuities			Variable Annuities		
	Men	Women	Total	Men	Women	Total
Total Annuitants June 30, 1987	100	77	177	459	275	734
Members Retired During Year	3	2	5	68	58	126
Members Re-employed or Terminated by Law	(2)	—	(2)	—	(1)	(1)
Annuities Cancelled During Year	—	—	—	(1)	—	(1)
Annuitants Deceased During Year	(2)	(1)	(3)	(1)	—	(1)
Total Annuitants June 30, 1988	**99**	**78**	**177**	**525**	**332**	**857**

DISABILITANTS

	Basic System			Coordinated System		
	Men	Women	Total	Men	Women	Total
Total June 30, 1987	21	19	40	87	90	177
Added During Year	—	—	—	25	24	49
Resumed Benefits	—	—	—	—	—	—
Died During Year	—	(2)	(2)	(10)	(4)	(14)
Transferred to Retirement Status	(3)	(1)	(4)	(8)	(7)	(15)
Resumed Employment	—	—	—	(3)	(7)	(10)
Total June 30, 1988	**18**	**16**	**34**	**91**	**96**	**187**

BENEFICIARIES OF RETIRED MEMBERS

	Basic System			Coordinated System		
	Men*	Women*	Total	Men*	Women*	Total
Total June 30, 1987	78	84	162	281	110	391
Added During Year	20	13	33	32	24	56
Terminated During Year	(3)	(8)	(11)	(26)	(20)	(46)
Deaths	(1)	(1)	(2)	(1)	(3)	(4)
Total June 30, 1988	**94**	**88**	**182**	**286**	**111**	**397**

*Sex of Member.

DISTRIBUTION OF ACTIVE MEMBERS
As of June 30, 1988

	Years of Service								
Age	**<1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**Total**
<25	989	807							1,796
25-29	1,364	3,908	708	3					5,983
30-34	1,047	2,386	2,675	1,179					7,287
35-39	1,430	2,615	1,838	3,763	2,032				11,678
40-44	1,163	2,347	1,403	1,761	4,437	1,600			12,711
45-49	643	1,339	939	1,099	1,956	2,937	929	4	9,846
50-54	352	664	499	676	1,130	1,587	1,918	557	7,383
55-59	197	325	226	355	683	957	1,050	852	4,645
60-64	85	140	82	114	283	381	251	367	1,703
65+	50	55	16	29	34	36	38	36	294
Total	7,320	14,586	8,386	8,979	10,555	7,498	4,186	1,816	63,326

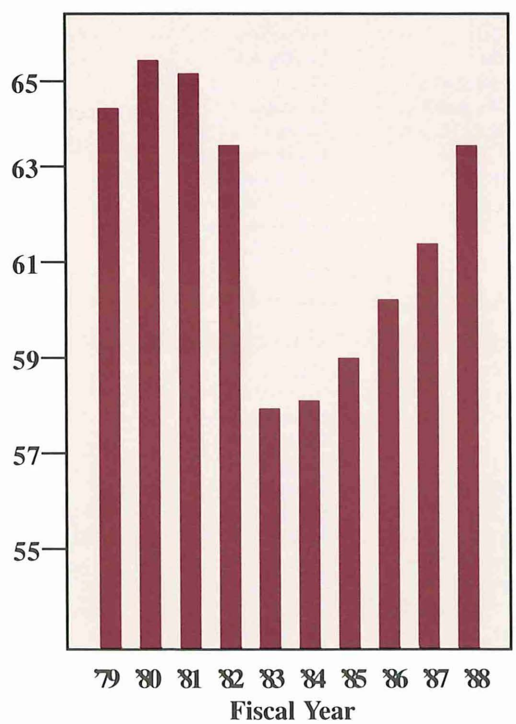
AVERAGE ANNUAL EARNINGS OF ACTIVE MEMBERS
for Fiscal Year Ended June 30, 1988

	Years of Service								
Age	**<1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**All**
<25	9,692	18,112							13,475
25-29	8,610	18,514	22,726	23,025					16,757
30-34	8,947	17,955	23,223	26,631					19,998
35-39	8,620	17,542	24,435	28,570	32,655				23,718
40-44	7,719	17,170	25,011	30,212	34,475	36,160			27,409
45-49	7,682	16,236	24,553	30,550	36,349	37,284	38,225	32,543	30,424
50-54	7,282	13,127	21,870	29,637	35,657	37,717	38,825	38,608	32,283
55-59	7,275	12,409	18,597	27,557	34,455	36,230	37,806	40,139	32,627
60-64	6,652	8,401	19,914	29,162	33,056	35,478	36,752	39,466	31,286
65+	5,858	5,861	12,592	30,989	31,809	38,122	36,448	42,613	24,110
All	8,442	17,275	23,637	28,934	34,551	36,914	38,290	39,566	25,983

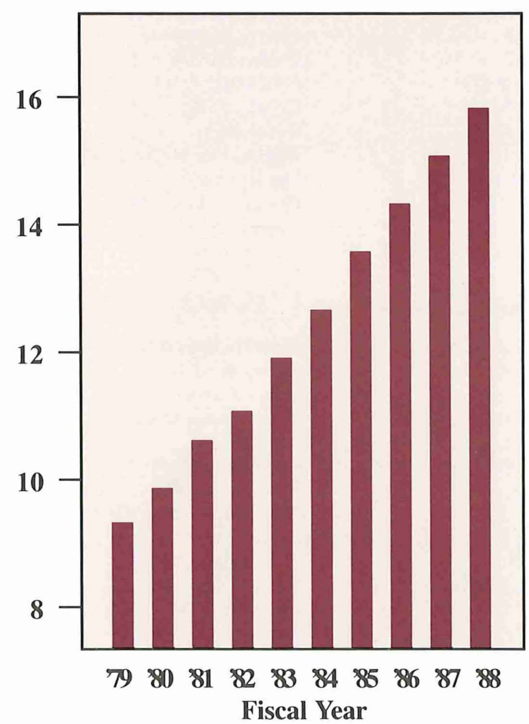
TEN YEAR SUMMARY OF MEMBERSHIP

Year Ended June 30	Active Members	Inactive Members	Benefit Recipients
1979	64,360	14,530	9,429
1980	65,423	13,460	9,969
1981	65,189	14,245	10,519
1982	63,573	14,411	11,118
1983	57,831	16,842	11,862
1984	58,190	16,167	12,667
1985	58,854	15,601	13,633
1986	60,149	14,967	14,560
1987	61,283	15,032	15,181
1988	63,326	15,188	15,880

ACTIVE MEMBERS in Thousands



BENEFIT RECIPIENTS in Thousands



SCHEDULE OF PARTICIPATING EMPLOYERS

INDEPENDENT SCHOOL DISTRICTS

Ada #521
Adrian #511
Aitkin #1
Akeley #301
Albany #745
Albert Lea #241
Alden #242
Alexandria #206
Alvarado #436
Amboy-Good Thunder #79
Annandale #876
Anoka #11
Appleton #784
Argyle #437
Arlington #731
Ashby #261
Askov #566
Atwater #341
Audubon #21
Aurora #691
Austin #492
Babbitt #692
Backus #114
Badger #676
Bagley #162
Balaton #411
Barnesville #146
Barnum #91
Barrett #262
Battle Lake #542
Beardsley #57
Becker #726
Belgrade-Elrosa #736
Belle Plaine #716
Bellingham #371
Belview #631
Bemidji #31
Benson #777
Bertha-Hewitt #786
Big Lake #727
Bird Island #646
Biwabik #693
Blackduck #32
Blooming Prairie #756
Bloomington #271
Blue Earth #240
Borup #522
Braham #314
Brainerd #181
Brandon #207
Breckenridge #846
Brewster #513
Bricelyn #217
Brooklyn Center #286
Brooten #737
Browerville #787
Browns Valley #801
Brownton #421
Buffalo #877
Buffalo Lake #647
Burnsville #191
Butterfield #836
Byron #531
Caledonia #299
Cambridge #911
Campbell #852
Canby #891
Cannon Falls #252
Carlton #93
Cass Lake #115
Centennial #12
Ceylon #451
Chandler-Lake Wilson #918
Chaska #112
Chatfield #227
Chisago Lakes #141
Chisholm #695
Chokio-Alberta #771
Clara City #126
Claremont #201
Clarissa #789
Clarkfield #892
Clearbrook #161
Cleveland #391
Climax #592
Clinton #58
Cloquet #94
Cold Spring #750
Coleraine #316
Columbia Heights #13
Comfrey #81
Cook County #166
Cosmos #461
Cottonwood #412
Cromwell #95
Crookston #593
Crosby #182
Cyrus #611
Dakota Co. Vo. Tech. #917
Danube #648
Dassel-Cokato #466
Dawson #378
Deer Creek #543
Deer River #317
Delano #879
Delavan #218
Detroit Lakes #22
Dilworth #147
Dodge Center #202
Dover-Eyota #533
Duluth #709
Eagle Bend #790
East Chain #453
East Grand Forks #595
Echo #893
Eden Prairie #272
Eden Valley #463
Edgerton #581
Edina #273
Elbow Lake #263
Elgin #806
Elk River #728
Ellendale #762
Ellsworth #514
Elmore #219
Ely #696
Emmons #243
Erskine #597
Esko #99
Evansville #208
Eveleth #697
Fairfax #649
Fairmont #454
Faribault #656
Farmington #192
Fergus Falls #544
Fertile #599
Finlayson #570
Fisher #600
Floodwood #698
Foley #51
Forest Lake #831
Fosston #601
Franklin #650
Frazee #23
Freeborn #244
Fridley #14
Fulda #505
Garden City #78
Gary #523
Gaylord #732
Gibbon #733
Gilbert #699
Glencoe #422
Glenville #245
Glenwood #612
Glyndon #145
Gonvick #158
Goodhue #253
Goodridge #561
Graceville #60
Granada-Huntley #460
Grand Meadow #495
Grand Rapids #318
Granite Falls #894
Greenbush #678
Grey Eagle #791
Grove City #464
Grygla #447
Hallock #351
Halstad #524
Hancock #768
Harmony #228
Hastings #200
Hawley #150
Hayfield #203
Hector #651
Henderson #734
Hendricks #402
Hendrum #525
Henning #545
Herman-Norcross #264
Hermantown #700
Heron-Lake-Okabena #330
Hibbing #701
Hill City #2
Hills-Beaver Creek #671
Hinckley #573
Hoffman #265
Holdingford #738
Hopkins #270
Houston #294
Howard Lake #880
Humboldt #352
Hutchinson #423
International Falls #361
Inver Grove #199
Isle #473
Ivanhoe #403
Jackson #324
Janesville #830
Jasper #582
Jordan #717
Karlstad #353
Kasson-Mantorville #204
Kelliher #36
Kennedy #354
Kensington #209
Kenyon #254
Kerkhoven-Murdock-Sunburg #775
Kiester #222
Kimball #739
La Crescent #300
Lake Benton #404
Lake City #813
Lake Crystal #70
Lake of the Woods #390
Lake Park #24
Lake Superior #381
Lakefield #325
Lakeville #194
Lamberton #633
Lancaster #356
Lanesboro #229
Laporte #306
Le Center #392
Le Roy #499
Lester Prairie #424
Le Sueur #393
Lewiston #857
Lindstrom #141
Litchfield #465
Little Falls #482
Littlefork-Big Falls #362
Long Prairie #792
Luverne #670
Lyle #497
Lynd #415
Mabel-Canton #238
Madelia #837
Madison #377
Magnolia #669
Mahnomen #432
Mahtomedi #832
Mankato #77
Maple Lake #881
Mapleton #72
Marietta-Nassau #376
Marshall #413
Maynard #127
Mazeppa #809
McGregor #4
Mc Intosh #603
Medford #763
Melrose #740
Menahga #821
Mentor #604
Middle River #440
Milaca #912
Milan #128
Milroy #635
Minneota #414

Minnesota Lake #223
Minnetonka #276
Montevideo #129
Montgomery #394
Monticello #882
Moorhead #152
Moose Lake #97
Mora #332
Morgan #636
Morris #769
Morristown #657
Morton #652
Motley #483
Mounds View #621
Mountain Iron-Buhl #712
Mountain Lake #173
Nashwauk-Keewatin #319
Nett Lake #707
Nevis #308
New London-Spicer #345
New Prague #721
New Richland #827
New Ulm #88
New York Mills #553
Newfolden #441
Nicollet #507
NE Metro Intermediate #916
North Branch #138
North St. Paul-Maplewood #622
Northfield #659
Norwood #108
Ogilvie #333
Oklee #627
Olivia #653
Onamia #480
Orono #278
Ortonville #62
Osakis #213
Oslo #442
Osseo #279
Owatonna #761
Park Rapids #309
Parkers Prairie #547
Paynesville #741
Pelican Rapids #548
Pequot Lakes #186
Perham #549
Peterson #232
Pierz #484
Pillager #116
Pine City #578
Pine Island #255
Pine Point #3333
Pine River #117
Pipestone #583
Plainview #810
Plummer #628
Preston #233
Princeton #477
Prinsburg #815
Prior Lake #719
Proctor #704
Randolph #195
Raymond #346
Red Lake #38
Red Lake Falls #630
Red Wing #256
Redwood Falls #637
Remer #118
Renville #654
Richfield #280
Robbinsdale #281
Rochester #535
Rockford #883
Roseau #682
Rosemount-Apple Valley-Eagan #196
Roseville #623
Rothsay #850
Round Lake #516
Royalton #485
Rush City #139
Rushford #234
Russell #418
Ruthton #584
Sacred Heart #655
Sanborn #638
Sandstone #576
Sartell #748
Sauk Centre #743
Sauk Rapids #47
Sebeka #820
Shakopee #720
Sherburn #456
Silver Lake #425
Sioux Valley #328
Slayton #504
Sleepy Eye #84
So. Koochiching #363
So. St. Paul #6
So. Washington County #833
Southland #500
Southwestern Voc. Tech. Institute #900
Spring Grove #297
Spring Lake Park #16
Spring Valley #237
Springfield #85
St. Anthony-New Brighton #282
St. Charles #858
St. Clair #75
St. Cloud #742
St. Francis #15
St. James #840
St. Louis County #710
St. Louis Park #283
St. Michael-Albertville #885
St. Peter #508
Staples #793
Starbuck #614
Stephen #443
Stewart #426
Stewartville #534
Stillwater #834
Storden-Jeffers #178
Strandquist #444
Suburban Hennepin Vocational #287
Swanville #486
Taylors Falls #140
Thief River Falls #564
Tower-Soudan #708
Tracy #417
Trimont #457
Truman #458
Twin Valley #526
Tyler #409
Ulen-Hitterdal #914
Underwood #550
Upsala #487
Verdi #408
Verndale #818
Villard #615
Virginia #706
Wabasha #811
Wabasso #640
Waconia #110
Wadena #819
Waldorf-Pemberton #913
Walker #119
Walnut Grove #641
Wanamingo #258
Warren #446
Warroad #690
Waseca #829
Watertown-Mayer #111
Waterville-Elysian #395
Waubun #435
Wayzata #284
Welcome #459
Wells #224
West Concord #205
West St. Paul #197
Westbrook #175
Westonka #277
Wheaton #803
White Bear Lake #624
Willmar #347
Willow River #577
Windom #177
Winnebago #225
Winona #861
Winsted #427
Winthrop #735
Wood Lake #896
Worthington #518
Wrenshall #100
Wykoff #236
Zumbrota #260

JOINT POWERS UNITS

Agassiz Valley Vocational Center #94-03
Bemidji Regional Interdist. Council #96-1
Benton-Stearns Spec. Education Coop. #96-19
Carver-Scott Cooperative Center #94-55
Central Minnesota ERDC #94-0
Central Minnesota ECSU #96-25
Data Processing (TIES) #95-0
East Central Cooperative Center #94-43
East Range Vocational Center #94-33
Educational Cooperative Unit #5 #96-16
Fergus Falls Area Special Ed. Coop. #96-7
Highland Vocational Coop. Center #94-52
Interdist. Spec. Ed. Coop. St. Peter #96-3
Lake Agassiz Special Education Coop. #96-21
Leaf River Valley Cooperative Center #94-34
Meeker-Wright Special Ed. Coop. #96-9
Metro Education Cooperative Unit #96-11
Mid-Range Special Education Coop. #96-6
Midwest Special Ed. Interdist. Coop. #96-23
Mower Educational Service Coop. #96-18
MN Educational Computing Corporation #95-1
MN River Valley Special Ed. Coop. #24
MN Valley Cooperative Center #94-08
N. Country Vocational Coop. Center #94-56
Northeast Minnesota ECSU #96-13
Northwest Migrant Region #96-3
Northwest MN Ed. Coop. Unit #96-22

Northwest Reg. Interdist. Council #382, #96-17
Pine to Prairie Coop. Center #94-21
Red Lake Falls Spec. Ed. Coop. #96-4
Red River Valley High School Coop. #94-05
Region 1 ESV #98-5
River Bend Special Cooperative #96-12
SW & W. Central Ed. Coop. Serv. Unit #94-4
Sibley Co. Vocational Center #94-09
South Central ECSU #96-10
Southeast MN Educational Coop. Unit #96-15
Southeast MN Spec. Ed. Coop. #96-26
Tri-County Coop. Voc. Ed. Center #94-49
Viking Cooperative Center #94-50
Wasioja Spec. Ed. Coop. #96-27
West Central Migrant Project #98-2
West Central Special Education Coop. #96-8
Woodland-Freshwater Coop. Center #94-32
Wright Vocational Center #94-14

STATE AGENCIES, COLLEGES, UNIVERSITIES
Anoka State Hospital #91-15
Anoka-Ramsey Community College #93-15
Arrowhead Community College #93-21
Austin Community College #93-1
Bemidji State University #90-1
Brainerd Community College #93-2
Brainerd Regional Human Serv. Center #91-1
Cambridge Community College Center #93-20
Cambridge Human Services Center #91-2
Community College Board #93-0
Corrections Dept. #92-0
Education Dept. #88-37
Faribault Regional Center #91-5
Faribault Residential Schools #37001
Fergus Falls Community College #93-6
Fergus Falls Reg. Treatment Center #91-13
Fond du Lac Extn. Center #93-22
Hibbing Community College #93-7
Inver Hills Community College #93-18
Itasca Community College #93-3
Lakewood Community College #93-16
Mankato State University #90-2
Mesabi Community College #93-9
Metropolitan State University #90-7
Minneapolis Community College #93-14
Moorhead State University #90-3
Moose Lake Regional Treatment Center #91-11
MN Correctional Facility, Red Wing #92-1
MN Correctional Facility, Sauk Center #92-2
N. Hennepin Community College #93-12
Normandale Community College #93-17
Northland Community College #93-13
Rainy River Community College #93-5
Rochester Community College #93-8
Southwest State University #90-6
St. Cloud State University #90-4
St. Peter Regional Treatment Center #91-10
State Board of Vocational Education #88-36
State University Board #90-0
Teachers Retirement Association #88-69
Thistledew Camp #92-14
Vermillion Community College #93-4
Vocational Rehabilitation Dept. #88-210
Willmar Community College #93-10
Willmar State Hospital #91-14
Willow River Camp #92-12
Winona State University #90-5
Worthington Community College #93-11

PROFESSIONAL ORGANIZATIONS
Assoc. of School Administrators #97-2
Assoc. of Secondary Sch. Principals #97-3
Elementary School Principals Assn. #97-1
MN Education Association #97-4
MN Federation of Teachers #97-5
Osseo Federation of Teachers #97-9
Robbinsdale Federation of Teachers #97-6