

# Teachers Retirement Association

A Component Unit of the State of Minnesota



# Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 1995

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# **Teachers Retirement Association**

A Component Unit of the State of Minnesota



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For the Fiscal Year Ended June 30, 1995

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#### Letter of Transmittal



**Gary Austin Executive Director** 

#### **Teachers Retirement Association**



Suite 500, Gallery Building 17 West Exchange Street Saint Paul, MN 55102 (612) 296-2409 1-800-657-3669 Fax (612) 297-5999

December 31, 1995

Members of the Board of Trustees Teachers Retirement Association 17 West Exchange Street Saint Paul, MN 55102

Dear Trustee:

We are pleased to present this Comprehensive Annual Financial Report of the Teachers Retirement Association (TRA) for the fiscal year ended June 30, 1995, the 64th year of service. This report is intended to provide financial, actuarial, and statistical information in a single publication that is divided into five sections:

- Introductory Section describes TRA's management and summarizes plan benefits and guidelines;
- Financial Section contains the general purpose financial statements, notes to the financial statements, and the opinion of our independent auditor;
- **Investment Section** includes a description of asset management and investment performance;
- Actuarial Section contains the certification and results of the actuarial valuation performed by Milliman & Robertson as of July 1, 1995; and
- Statistical Section illustrates both current and historical data of interest.

#### **Reporting Entity**

As a member of the Board of Trustees, you have significant independence in the operations and management of TRA. However, the ability of the state legislature to influence funding and laws governing TRA is significant. Therefore, for reporting purposes, the TRA is considered a component unit of the State of Minnesota.

As of June 30, 1995, there were 465 reporting entities, active membership in TRA totaled 67,558 and a total of 23,168 retirees, survivors, beneficiaries and disabilitants were receiving monthly benefits.

#### **Accounting Basis and Internal Control**

All financial statements are prepared in conformity with Statement 1 provisions published by the National Council of Governmental Accounting and other generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board. The financial statements also comply with Minnesota Statutes, section 356.20, and are the responsibility of TRA management. The financial statements are prepared using the accrual basis of accounting; revenues are recorded when earned and expenditures recorded when the underlying obligation is incurred. Equity investments are presented at the lower of cost or market and fixed income investments are reported at amortized cost.

TRA management maintains a system of internal controls designed to assure responsible safeguarding of assets and reliable financial records. No material weaknesses in internal control were reported by our independent auditor for the fiscal year 1995 audit period.

#### Financial Highlights

The major sources of revenue for TRA are employee contributions, employer contributions, and investment earnings. Total revenues for fiscal year 1995 were \$989.9 million, a slight decrease of \$1.7 million from the previous year. While investment earnings were down from the previous year, the increase in the employee contribution rate, effective July 1, 1994, offset the earnings decline.

The expenditures of the fund consist primarily of payments made to members and beneficiaries for retirement, disability, or survivor benefits. In total, benefit payments for fiscal year 1995 were \$339 million, an increase of nearly 10 percent over the previous fiscal year. In total, benefit payments account for over 95 percent of TRA's operating expenses.

Eligible members may also choose to withdraw their contributions from the fund upon leaving covered employment. For fiscal year 1995, refunds to members were \$4.6 million. In general, fewer members are requesting refunds when they leave the teaching profession. This phenomenon can also be seen in the rising number of inactive members. TRA has over 21,500 members who are not currently teaching but maintain their account balance with the Association. For fiscal year 1995, administrative expenses were \$3.67 million; this cost represented 0.16 percent of the current covered payroll of active members.

#### **Funding**

The actuary for the Legislative Commission on Pensions and Retirement (LCPR) determines the actuarial liabilities and reserves under the entry age normal cost method. The total net assets of the Teachers Retirement Association on the actuarial balance sheet increased during fiscal year 1995 from \$7.61 billion to \$8.35 billion. The total required reserves necessary to fund current and future retirees of the fund also increased from \$9.12 billion to \$9.72 billion. The comparison of net assets to required reserves shows the funding ratio for fiscal year 1995 was 85.91 percent. This is an increase from the comparable 83.51 percent for fiscal year 1994. Significant actuarial gains resulted from a favorable investment market and lower then expected increases in members' salaries.

The unfunded liability decreased during the year by \$176 million and is currently \$1.37 billion. This amount will be funded over the remaining amortization period ending July 1, 2020. The current statutory employee and employer contribution rate of 14.66 percent is adequate to cover the 14.30 percent required contribution level as determined by the actuary.

According to the certification of the LCPR actuary, TRA is being maintained and funded on an actuarial sound basis, thus protecting future benefits for our members. It is anticipated that investment earnings on TRA assets will continue to meet or exceed the actuarial assumed earnings rate of 8.5 percent. TRA, as mandated by law, will continue its efforts towards a fully funded position by the year 2020 as unfunded actuarial liabilities are reduced in future funding periods.

#### **Investments**

All TRA assets are invested under the authority and direction of the State Board of Investment (SBI). The SBI has developed strategic asset allocation and other investment policies to represent the long-term funding needs of TRA members. The SBI, along with its Investment Advisory Council (IAC) continually review its policies to ensure sufficient assets are available to finance promised benefits. As Executive Director, I serve on the IAC and represent TRA members in its role to advise the SBI on investment related matters. During fiscal year 1995, the U.S. stock and bond markets performed well when compared to historical averages. During the last half of the fiscal year, continued reports of strong corporate profits, along with relatively low interest rates and low inflation,

worked to boost the stock market dramatically. Declining interest rates also generated positive returns in all sectors of the bond market with corporate bonds outperforming both government and mortgage securities. In aggregate, the international stock markets produced relatively weak gains during the fiscal year. The strong gains produced by the larger European markets were diminished by poor performance in the Japanese market.

The portfolio of the Basic Fund (for active members) showed a return of 15.8 percent for fiscal year 1995. The portfolio of the Minnesota Post Retirement Investment Fund (MPRIF), the fund for retired members, showed a return of 16.7 percent. The returns easily exceeded the actuarial investment return assumptions of 8.5 percent for the Basic Fund and 5.0 percent for MPRIF.

Total TRA fund assets on the balance sheet are \$8.25 billion, an increase of 7.8 percent from the previous fiscal year. Investment income continued to provide the majority (67 percent) of total revenues earned by the fund during fiscal year 1995. These returns provide the financial foundation for funding the benefit programs and for limiting the need for further employee and employer contributions. Further information on investments held in trust for TRA can be found under the Investments Section of the report.

#### **Economic Conditions and Outlook**

Minnesota's economy continued strong during the 1995 fiscal year. Payroll employment grew by 56,000 jobs (2.5 percent), exceeding the U.S. rate as it has every year for the past decade. By June 1995, the state's unemployment rate had fallen to 3.8 percent, 2.0 percent below the national unemployment rate. Manufacturing employment in Minnesota grew almost as rapidly as total employment in 1995, registering a 2.3 percent increase during the fiscal year. Minnesota's labor markets are now extremely tight, and while healthy employment growth is forecast for 1996, the state's future economic growth may under perform the national economy until the state's work force begins to expand more rapidly.

Personal income in Minnesota grew at an annual rate of 7.7 percent in fiscal year 1995, significantly more than the 6.6 percent growth rate posted by the U.S. economy. Continued growth in the state's manufacturing, trade and service sectors was

supplemented by a boom in agricultural incomes due to record harvests.

Minnesota's economy is expected to remain strong during the 1996 fiscal year. Personal income is forecast to grow to a 4.5 percent annual rate, and payroll employment is expected to grow by 48,000. Wages and salaries are expected to reach \$69 billion by the end of fiscal year 1996, an increase of 5.2 percent over June 1995. Major forecasters predict about an inflation rate of 2 to 3 percent for fiscal year 1996.

#### **Professional Services**

Actuarial services are provided to the Teachers Retirement Association by the firm Gabriel, Roeder, Smith and Company of Southfield, Michigan. However, the actuarial report of the reitrement fund is prepared by Milliman & Robertson, Inc., which is retained by the Legislative Commission on Pensions and Retirement for the purpose of preparing actuarial reports for all the statewide funds. The Office of the Attorney General provides legal counsel to TRA. The State Office of the Legislative Auditor conducts an annual financial audit of the retirement fund. Their report is shown on pages 12-13.

All financial transactions, including disbursements from the fund, are processed through the centralized controls of the Minnesota Accounting and Procurement System, under the supervision of the Minnesota Departments of Finance and Administration.

#### Reports to Members

An annual statement of account for the fiscal year ended June 30, 1995 was mailed to each active member in December 1995. This statement provides current and cumulative information related to salaries, contributions, and service credit. Projected and deferred retirement benefit estimates are also provided for eligible members. A plan summary, with summaries of the financial and actuarial data for the year ended June 30, 1995 will be distributed to each active and retired member in the Winter 1996 edition of the *TRIB*, TRA's newsletter.

#### **Review of Operations and Activities**

The number of TRA annuitants continued to grow during the fiscal year. At June 30, 1995, our benefits

division was paying monthly benefits to 23,168 retirees, disabilitants, and other beneficiaries. Refunds of contributions plus interest were also distributed to 2,152 members during the year. The number of active members increased to 67,558.

Demand for pre-retirement counseling service continues to grow. In light of Social Security concerns, members are becoming more aware of the importance of their promised TRA benefits. Also, numerous legislative changes over the years have added to the need for and the amount of counseling. During fiscal year 1995, our counseling staff personally advised 2,893 members. To improve customer service, we added two toll-free lines in early 1995 and over 55,000 telephone calls were received at our St. Paul office.

In the spring of 1995, we sought input from members, retirees and employer representatives to build the foundation of our five-year strategic plan called TRA 2000. By employing valid statistical sampling methods, we obtained responses which accurately reflect those of all active and retired members. Generally, retirees and active members are satisfied with the quality of most existing retirement services. However, the survey also showed a significant number of active members have yet to have had individual contact with our office. The survey was TRA's first random survey of its membership and has provided valuable information in targeting improvements in retirement planning, communication and the adequacy of our retirement benefits.

During the year, TRA employees and management worked cooperatively to develop a mission and vision statement reflecting the values to follow in delivering services to our customers. We view these principles as the building blocks of our strategic plan. Currently, we are exploring the feasibility of reorganizing our business processes to improve staff productivity and increase customer satisfaction. By streamlining our work processes and incorporating technological support functions such as document imaging and automated work-flow systems, we can position ourselves to meet the customer demands of the future.

The focus of this entire effort is to provide a working environment which promotes greater employee involvement, shared customer service goals, and a streamlined business process to help TRA fulfill its stated mission.

#### **Significant Legislation**

The 1995 Legislative Session for public pensions was likely the most quiescent in recent memory. Several minor administrative modifications were enacted. Under a new law beginning January 1, 1996, TRA members may make partial repayment of refunds provided they meet certain eligibility criteria. The minimum portion of a refund repayment must be onethird of the total service credit period of all refunds. This provision enables members who cannot afford to repurchase all of their forfeited service credit to improve their retirement benefit.

The Legislature also modified TRA's part-time teaching program by returning payment discretion to the employer units to determine whether they wish to pay the full employer contributions for teachers participating. Previously, employers were mandated to pay the full employer contributions. The employer may now pay any amount agreed upon with the teacher for the employer payment portion. This flexibility should allow more teachers to participate in the program.

A variety of bills that never received a hearing include two bills that would have restored the Rule of 85 and a bill that would have lowered the normal retirement age for post-1989 hires from the ages for receipt of full Social Security benefits to age 65 (the normal retirement age for pre-1989 hires).

#### Acknowledgments

The preparation of this report is possible only through the combined efforts of TRA employees and our professional consultants. It is intended to provide a complete and reliable portrayal of the financial status of the fund. A copy of this report will be mailed to each public school building in the state.

We would like to take this opportunity to express our gratitude to the Board of Trustees, the TRA employees, the Board's advisors, and the many people who work diligently to ensure the successful operation and financial soundness of the fund.

Lay Lestin Jon Wieneund

Respectfully submitted,

Gary Austin

**Executive Director** 

John Wicklund Assistant Director, Finance

# **Board of Trustees**

(As of December 1, 1995)

#### President



Vernell R. Jackels Elected Member Winona, MN

#### Vice President



Carol F. Ackerson Elected Member New Ulm, MN



Robert E. Astrup Elected Member Columbia Heights, MN



Martha Lee (Marti) Zins Elected Member Hopkins, MN



Walter G. Larson Retiree Representative Glenwood, MN



David Lamberger Minnesota School Boards Association Representative



Bruce H. Johnson Commissioner of Children, Families, and Learning



Laura M. King Commissioner of Finance

### Administration



Gary Austin Executive Director



John J. Gardner Assistant Director Records and Retirement Services



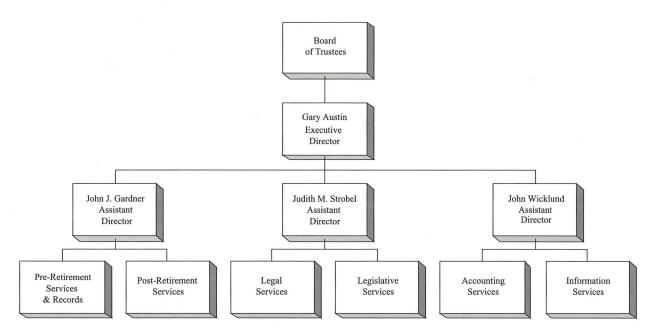
Judith M. Strobel Assistant Director Legal and Legislative Services



John Wicklund Assistant Director Accounting and Information Services

## **Administrative Organization**

(As of December 1995)



#### **Mission Statement**

Purpose The purpose of the Minnesota Teachers Retirement Association is to administer

benefits and provide reliable information.

Customers Our customers are educators and their employers, as well as others requesting

information or services. Improving service to our customers — this is our operating

value.

Services Our services include accumulating funds, maintaining member data, providing

counseling, communicating accurate information, and delivering benefits.

#### **Our Values**

Accuracy Ensure that all information received, maintained, and provided is clear and accurate.

Quality Make high-quality services accessible to our customers.

Timeliness Provide timely receipt and dissemination of information.

Efficiency Make efficient use of human and technological resources in a team environment.

Employee Provide ongoing employee development in a team environment that encourages

Excellence cooperation and mutual respect, focuses on common goals, and recognizes superior

performance.

## **Teachers Retirement Fund Plan Summary**

#### **Purpose**

The Teachers Retirement Fund 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 Minnesota more attractive to qualified persons by providing a retirement benefit schedule that rewards faithful and continued service.

#### Administration

The management of the Teachers Retirement Fund is vested in a board of eight trustees – three are statutory and five are elected. The statutory trustees are the Commissioner of Children, Families, and Learning; the Commissioner of Finance; and a representative of the Minnesota School Boards Association. Four of the five elected trustees are active members and one is a retiree. Administrative management of the fund is vested in an Executive Director who is appointed by the Board of Trustees. The board also contracts with an actuary and uses 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 or by the University of Minnesota) are required to be members; however, no Minnesota state college or university teacher is a member except for purposes of Social Security coverage if that person elects coverage by the Defined Contribution Retirement Plan administered by the Minnesota State College or University Board.

#### **Retirement Service Credit**

Service credit for benefits is earned from teaching service performed on a full-time, part-time or substitute basis up to a maximum of 170 days per fiscal year (July 1–June 30). Service credit may be obtained by using paid accumulated sick leave or by purchasing service for a qualified leave of absence. 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. Even though a teacher may teach more than five hours per day, not more than one day of service credit can be earned on any day. No more than one year of service credit may be earned during any fiscal year.

#### Financing

Benefits are financed by employee contributions, employer contributions, investment earnings and turnover gains. Turnover gains are employer contributions released to the fund 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 10.5% of their annual salary while Coordinated system members (with Social Security coverage) contribute 6.5% 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 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 3.64% of total salary for amortizing the unfunded liability. For Coordinated system members the employer unit also makes the required matching contribution to the Social Security Administration.

#### Retirement Benefit

The retirement benefit is determined by 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 retirement benefits for members who were first hired before July 1, 1989, are different from the retirement benefits for members who were first hired after June 30, 1989.

#### Before July 1, 1989

For members first hired before July 1, 1989, the retirement benefits (with average salary defined as the average of the highest five successive annual salaries) are **the greater of:** 

1.13% of average salary for the first 10 years of allowable service and 1.63% of average salary for each subsequent year of allowable service with a reduction of 0.25% for each month the member is under age 65 at the time of retirement (under age 62 with 30 or more years of allowable service) and no reduction if age plus years of allowable service totals 90 or more.

#### OR

1.63% of average salary for each year of allowable service with augmented actuarial reduction (approximately 4%-5% per year) for each month the member is under age 65.

Early retirement benefit eligibility is age 55 with 3 or more years of allowable service or any age with at least 30 years of allowable service.

For Basic system members (those without Social Security coverage) the formula percentages are 2.13% and/or 2.63% rather than the 1.13% and/or 1.63% shown for Coordinated system members (those with Social Security coverage).

#### After June 30, 1989

For members first hired after June 30, 1989 the retirement benefits (with average salary defined as the average of the highest five successive annual salaries) are as follows:

1.63% of average salary for each year of allowable service with augmented actuarial reduction (approximately 4%-5% per year) for each month the member is under the full Social Security retirement benefit eligible age. Under current federal law, the retirement age for full Social Security retirement benefits is age 65; but starting in the year 2003, Social Security will

gradually increase the retirement age for full Social Security retirement benefits until it reaches age 67 in the year 2027.

Early retirement benefit eligibility is age 55 with 3 or more years of allowable service.

#### **Deferred Retirement**

Members with three or more years of allowable service (ten or more years of allowable service if termination of teaching service occurs before July 1, 1987, and five or more years of allowable service if termination of teaching service occurs after June 30, 1987, but before May 16, 1989) who terminate teaching service in schools covered by the association may have their retirement benefit deferred until they attain age 55 or older. The benefit is augmented by 3% interest compounded annually until January 1 of the year following attainment of age 55 and 5% thereafter until the retirement benefit begins.

#### **Annuity Plan Options**

Six different annuity plans are available to TRA members providing monthly annuity payments for as long as the annuitant lives. Plan A-1 provides the highest possible monthly benefit, but terminates upon the member's death. The annuitant may choose to provide survivor benefits to a designated beneficiary(ies) by selecting one of the five plans which have survivorship features.

- 1. Life Plan A-1, For Life of Member
- 2. Life Plan B-1, Guaranteed Refund
- 3. Life Plan C-3, 15-Year Certain
- 4. Life Plan E-1, 100% Survivorship with "Bounceback"
- 5. Life Plan E-2, 50% Survivorship with "Bounceback"
- 6. Life Plan E-3, 75% Survivorship with "Bounceback"

#### **Post Retirement Increases**

The required reserves needed to pay retirement benefits are transferred from the fund's regular assets to the Minnesota Post Retirement Investment Fund (MPRIF) at the time of retirement. Benefits are increased annually based on the post-retirement adjustment calculation described in Minnesota Statutes, section 11A.18, subdivision 9. There is a guarantee that benefits will never be decreased below the original amount established at retirement as adjusted by the annual increases.

#### **Combined Service Annuity**

Any member who has combined total years of allowable service which meet the minimum vesting requirements with any two or more of the Minnesota public retirement funds that participate in the combined service annuity program may elect to receive a combined service annuity upon compliance with eligibility requirements of the covered funds in which allowable service was established.

#### Refunds

Upon termination of teaching service and application, TRA will issue a refund of a member's accumulated contributions plus 5% interest compounded annually if termination occurred before May 16, 1989, and 6% interest compounded annually if termination occurred on or after May 16, 1989. A refund will be issued only if the member has officially resigned from employment and the official refund 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 contributions may repay these contributions upon completing two years of allowable service. The repayment must include interest of 81/2%, compounded annually from the date of the refund.

#### **Disability**

Any active member, who becomes disabled after at least three years of allowable service, is eligible to apply for a total and permanent disability benefit provided at least two of the required three years of allowable service are performed 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 an active coordinated member with Social Security coverage dies before retirement, the total amount of accumulated contributions plus 6% interest compounded annually 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. In some cases, a joint and survivor annuity (described below) may be selected instead of this 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 50% 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 per month. If the member is not married and there are no dependent children, then the total amount of accumulated contributions plus 6% interest compounded annually is paid to the designated beneficiary. In some cases, a joint and survivor annuity (described below) may be selected instead of this benefit.

#### Joint and Survivor Annuity

The surviving spouse of a married member with at least three years of allowable service credit, may elect to receive the joint and survivor annuity benefit instead of the lump sum benefit. The annuity is payable monthly to the spouse or to a designated beneficiary for as long as the spouse or beneficiary lives; however, payments terminate upon the death of the spouse or beneficiary with no remaining benefits for other beneficiaries. In lieu of a lifetime benefit, only a spouce may elect to receive actuarially equivalent payments for a period certain of 5, 10, 15 or 20 years.

The amount of the annuity is based upon the High-5 Level Formula program and the ages of the member and the spouse or designated beneficiary at the time of death of the member. The member's accumulated deductions and interest plus the employer's contributions are used to provide the benefit. The surviving spouse of an eligible member has a choice of the joint and survivor annuity benefit or the lump sum benefit. If there is no surviving spouse, actuarially equivalent payments may be made for a period certain for any surviving dependent child under the age of 20.

# **Financial Section**





#### OFFICE OF THE LEGISLATIVE AUDITOR CENTENNIAL BUILDING, 658 CEDAR STREET • ST. PAUL, MN 55155 • 612/296-4708 • TDD RELAY 612/297-5353

JAMES R. NORLES, LEGISLATIVE AUDITOR

#### **Independent Auditor's Report**

Board of Trustees and **Executive Director** Teachers Retirement Association

We have audited the accompanying financial statements of the Teachers Retirement Association as of and for the year ended June 30, 1995, as listed in the financial section of the table of contents. These financial statements are the responsibility of the Teachers Retirement Association's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

As explained in Note 2(d), 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 onethird 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 1(e) 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, in all material respects, the financial position of the Teachers Retirement Association as of June 30, 1995, and the results of its operations and the changes in financial position for the year then ended in conformity with generally accepted accounting principles. 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.

**Board of Trustees** and **Executive Director** Teachers Retirement Association Page 2

Our audit 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. Such information has been subjected to the auditing procedures applied in the audit 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.

Legislative Auditor

November 9, 1995

John Asmussen, CPA Deputy Legislative Auditor

# **Teachers Retirement Fund**

# **Balance Sheet**

# June 30, 1995 with comparative totals for June 30, 1994

Assets	1995	1994
Cash (Note 7)	\$ 2,279,426	\$ 1,376,485
Accounts Receivable (Note 8)	42,292,122	35,731,408
Accrued Investment Income	284,116	16,451
Prepaid Expense	8,980	1,278
Investments:		
Outside Managed Pooled Accounts (Note 2d)	4,355,270,383	4,117,799,017
Short-term Cash Equivalents (Note 2d)	57,634,516	3,353,987
Equity in MPRI Fund (Note 2e)	3,790,813,000	3,492,524,999
Fixed Assets Net of Accumulated Depreciation (Note 2b)	405,322	381,238
Total Assets	\$ 8,248,987,865	\$ 7,651,184,863
Liabilities and Reserves Required	1995	1994
Current Liabilities:		
Accounts Payable	\$ 3,334,495	\$ 2,933,976
Due to MPRI Fund (Note 2e)	19,279,005	55,778,197
Accrued Compensated Absences (Note 2c)	294,233	256,202
Total Liabilities	\$ 22,907,733	\$ 58,968,375
Fund Balance:		
Member Reserves (Note 6a)	\$ 1,070,347,308	\$ 970,812,592
MPRIF Reserves (Notes 2e, 6c)	3,790,813,000	3,492,524,999
Benefit Reserves (Note 6b)	4,856,462,692	4,651,928,409
Total Reserves (Note 1e)	\$ 9,717,623,000	\$ 9,115,266,000
Unreserved Fund Balance:		
Unfunded Actuarial Accrued Liability (Note 1e)	\$(1,491,542,868)	\$(1,523,049,512)
Total Unreserved Fund Balance (Note 1e)	\$(1,491,542,868)	\$(1,523,049,512)
Total Fund Balance	\$ 8,226,080,132	\$ 7,592,216,488
Total Liabilities and Fund Balance	\$ 8,248,987,865	\$ 7,651,184,863

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, 1995 and 1994

Operating Revenues:	1995	1994
Member Contributions (Notes 1d, 4)	\$ 143,535,906	\$ 100,803,239
Employer Contributions (Notes 1d, 4)	179,671,657	171,854,594
Investment Income (Note 2d)	368,946,783	394,385,960
Distributed Income from MPRI Fund (Note 2e)	297,153,025	315,803,074
Other	553,171	8,752,052
Total Operating Revenues	\$ 989,860,542	\$ 991,598,919
Operating Expenses:		
Benefits Paid (Notes 1c, 5, 7c)	\$ 338,857,152	\$ 309,036,770
Refunds (Note 7a)	4,619,063	3,583,342
Administrative Expenses (Note 7b)	3,665,748	3,338,007
Interest Paid MPRIF (Notes 2e, 6b)	2,008,430	614,377
Investment Management Fees (Note 2d)	6,846,505	6,224,373
Total Operating Expenses	\$ 355,996,898	\$ 322,796,869
Net Fund Balance Additions	\$ 633,863,644	\$ 668,802,050
Fund Balance, Beginning of Year	7,592,216,488	6,923,414,438
Fund Balance End of Year	\$8,226,080,132	\$7,592,216,488

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

# **Teachers Retirement Fund**

# Statement of Revenues, Expenses, and Change in Fund Balances

# For Fiscal Years Ended June 30, 1995 and 1994

Reserves

	Member	MPRI Funds
Operating Revenues:		
Member Contributions (Notes 1d, 4)	\$ 143,342,633	\$ 0
Employer Contributions (Notes 1d, 4)	0	0
Investment Income (Note 2d)	0	0
Distributed Income from MPRI Fund (Note 2e)	0	297,153,025
Other	0	0
Total Operating Revenues	\$ 143,342,633	\$ 297,153,025
Operating Expenses:		
Benefits Paid (Notes 1c, 5, 7c)	\$ 0	\$ 330,367,749
Refunds (Note 7a)	4,408,340	0
Administrative Expenses (Note 7b)	0	0
Interest Paid MPRIF Fund (Note 2e, 6b)	0	0
Investment Management Fees (Note 2d)	0	0
Total Operating Expenses	\$ 4,408,340	\$ 330,367,749
Other Changes in Reserves:		
Annuities Awarded (Note 6c)	(40,800,272)	327,580,248
Other Transfers	1,400,695	0
Mortality (Note 6c)	0	3,922,476
Total Other Changes	\$ (39,399,577)	\$ 331,502,724
Net Fund Balance Additions	\$ 99,534,716	\$ 298,288,000
Change in Unfunded Accrued Liability	0	0
Fund Balance, Beginning of Year	970,812,592	3,492,525,000
Fund Balance, End of Year	\$1,070,347,308	\$ 3,790,813,000

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

_	Benefit		Unreserved To Fund Balance June 3			Total <b>June 30, 1994</b>
	\$ 193,273	\$	0	\$ 143,535	5,906	\$ 100,803,239
	179,671,657		0	179,671	1,657	171,854,594
	368,946,783		0	368,946	5,783	394,385,960
	0		0	297,153	3,025	315,803,074
	553,171		0	553	3,171	8,752,052
-	\$ 549,364,884	\$	0	\$ 989,860	),542	\$ 991,598,919
	\$ 8,489,404	\$	0	\$ 338,857	7,153	\$ 309,036,770
	210,723		0	4,619		3,583,342
	3,665,748		0	3,665	5,748	3,338,007
	2,008,430		0	2,008	3,430	614,377
	6,846,504		0	6,846	5,504	6,224,373
-	\$ 21,220,809	\$	0	\$ 355,996	5,898	\$ 322,796,869
	\$ (286,779,976)	\$	0	\$	0	\$ 0
	(1,400,695)	Ψ	0	Ψ	0	0
	(3,922,476)		0		0	0
-	\$ (292,103,147)	\$	0	\$	0	\$ 0
						,
	\$ 236,040,928	\$	0	\$ 633,863	ŕ	\$ 668,802,050
	(31,506,644)		,506,644		0	0
	4,651,928,408		,049,512)	7,592,210		\$ 6,923,414,438
	\$ 4,856,462,692	\$ (1,491	,542,868)	\$ 8,226,080	J,132	\$ 7,592,216,488

### **Notes to the Financial Statements**

#### 1. Plan Description

#### a. Organization

The State of Minnesota Teachers Retirement Association (TRA) is the administrator of a multi-employer, cost sharing Teachers Retirement Fund. TRA administers two plans: Basic and Coordinated. The plans are established and administered in accordance with Minnesota Statutes, chapters 354 and 356. The Board of Trustees has significant independence in the operations and management of the system. TRA functions as a separate statutory entity which has been construed as an agency of the state. However, the ability of the state legislature to influence funding and laws governing the system is considerable. Therefore, for reporting purposes, the Teachers Retirement Association is considered a component unit of the State of Minnesota. The TRA Fund is included in the state's Comprehensive Annual Financial Report as a pension trust fund.

#### b. Participating Members and Employers

Teachers employed in Minnesota's public elementary and secondary schools, and certain 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 TRA members.

As of July 1, 1995, state university, community college, and technical college teachers first employed by the Minnesota State Colleges and Universities (MnSCU) can elect TRA coverage within 90 days of first employment. Alternatively, these teachers may elect coverage through the Defined Contribution Retirement Plan (DCR) administered by MnSCU. Teachers first employed by MnSCU prior to July 1, 1995 have participated in an election to retain TRA coverage or change coverage to the DCR plan. A teacher employed by MnSCU and electing coverage by the DCR is not a member of TRA, except for purposes of Social Security coverage.

<b>Employer Units Participating in TF</b>	RA At	June 30
	1995	1994
Independent school districts	356	390
Joint powers units	39	39
Technical colleges	18	11
State agencies, colleges, universities	49	53
Professional organizations	. 3	6
Total Employer Units	465	499
Membership in TRA	At J	une 30
	1995	1994
Retirees, disabilitants and		
beneficiaries receiving benefits	23,168	22,137
Terminated employees with		
deferred vested benefits	5,103	4,499
Total	28,271	26,636
Current employees:		
Vested	50,211	49,751
Non-vested	17,347	16,763
Total	$\frac{17,517}{67,558}$	66,514
10.01	===	====

#### c. Benefits

TRA provides retirement benefits as well as death and disability benefits. All benefits vest after three years of credited service. For Coordinated members (those with Social Security coverage) first hired before July 1, 1989, retirement benefits are the greater of: (a) 1.13% of average salary for each year in first ten years and 1.63% of average salary for each subsequent year with 0.25% reduction for each month retiree is under age 65 (age 62 if 30 or more years of service) and no reduction if age plus service totals 90 or more; or (b) 1.63% of average salary for each year of service with augmented actuarial reduction for each month retiree is under 65.

For members first hired after June 30, 1989, retirement benefits are 1.63% of the average salary for each year of service with augmented actuarial reduction for each month the retiree is under the full Social Security benefit eligible age. Average salary is the average of highest five successive annual salaries. For Basic members (those without Social Security coverage) the formula percentages are 2.13% and 2.63% rather than the 1.13% and 1.63% of Coordinated members. Benefits are payable for life with the amount of the benefit determined by the selection of one of six available annuity payment plans. Post-retirement increases are described in note 2e. The benefit provisions stated in this section are current provisions and apply to active plan participants. Vested, terminated employees who are entitled to benefits but are not receiving them yet, are bound by the provisions in effect at the time they terminate their public service.

#### d. Funding of Pension Costs

Pension costs of the TRA are funded from contributions made to the association by members and their employers. Members of the fund contribute an amount equal to 6.5 percent of their salary if they are in the Coordinated Plan and 10.5 percent of their salary if they are in the Basic Plan. Coordinated members of the fund are mandatorily covered by Social Security. Employer contributions to the fund are 4.5 percent and 8.5 percent of the salaries of Coordinated and Basic members, respectively. Minnesota Statutes, section 354.43, subdivision 5, currently requires an additional employer contribution of 3.64 percent of the members' salaries for the purpose of amortizing the unfunded liability of the fund.

#### e. Actuarial Valuation of Plan Benefits

Minnesota Statutes, section 356.215, subdivision 4, provides that annual actuarial valuations of plan benefits be computed in accordance with the entry age normal cost method. Under this method, the total actuarial liability of the fund was \$9,717,623,000 and net assets were \$8,226,082,000 based on equity investments at the lower of cost or market value. On this basis, required reserves were 84.7% funded and the unfunded liability was \$1,491,541,000. 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 \$8,348,124,000 and the total liabilities remain at \$9,717,623,000. This data results in a funding ratio of 85.9% and total accrued unfunded liabilities of \$1,369,499,000. This amount differs from the unfunded accrued liabilities reported on the balance sheet, because the actuarial calculation of net assets includes cost plus one third of unrealized capital gains or losses.

This funding information was determined as part of an actuarial valuation at June 30, 1995. Significant actuarial assumptions used include: (a) a rate of return on the investment of present and future active member assets of 8.5 percent per year, compounded annually; (b) projected salary increases based on a salary inflation component of 5 percent plus an age-related merit scale factor; and (c) post retirement increases as described in note 2e; (d) payroll growth at 5 percent per year for inflation; and (e) mortality rates based on the 1983 Group Annuity Mortality tables as described on page 41.

#### 2. Summary of Significant Accounting **Policies**

#### a. Basis of Accounting

The accompanying financial statements for the fund are on the accrual basis of accounting. Employee and employer contributions are recognized as revenue in the period in which they are earned and become measurable. Expenses are recorded when the liability is incurred.

#### b. Fixed Assets and Depreciation

Fixed assets are capitalized at cost at the time of acquisition. Expenditures for maintenance and repairs are charged to expense as incurred. Costs of assets and the related accumulated depreciation are eliminated from the accounts in the year of sale or retirement. Depreciation is computed on the straight-line method over the estimated useful lives of the assets. The estimated useful lives are from three to twenty

years for equipment. At June 30, 1995, total fixed assets were \$861,206 at cost. Accumulated depreciation totaled \$465,884 resulting in a net fixed asset value of \$405,322.

#### c. Accrued Compensated Absences

Employees of TRA accrue vacation leave, sick leave and compensatory leave at various rates within limits specified in collective bargaining agreements. Accumulated amounts for compensated absences are accrued when incurred. Such leave is liquidated in cash, primarily at the time of termination of employment.

#### d. Investment Policies and Valuation Methods

Pursuant to Minnesota Statutes, section 11A.04, the TRA's retirement fund assets are commingled with the retirement assets of other statewide retirement funds and placed in various pooled investment accounts administered by the State Board of Investment (SBI).

Investments in the pooled accounts are valued at cost for early securities and amortized cost for fixed income securities, subject to market adjustments judged to be other than temporary. Investment income is recognized as earned. Accrued investment income of the pooled investment accounts is included in participation in the accounts. Gains and losses on sales or exchanges are recognized on the transaction date. Investment income during the year for the Basic (Active) Fund was \$368,946,782. The cost of security transactions is included in the transaction price. Administrative expenses of the SBI and investment management fees of the external money managers and the state's master custodian for

pension fund assets are allocated to the funds participating in the pooled investment accounts. TRA's share of these expenses totaled \$6,846,505 for fiscal year 1995.

#### e. Minnesota Post Retirement Investment Fund (MPRIF)

For all retiring members, the reserves required to pay the cost of retirement benefits are transferred from TRA's regular assets to the Minnesota Post Retirement Investment Fund (MPRIF) which is managed by the State Board of Investment. Participation in the MPRIF is shown at the actuarially determined required reserves level in accordance with Minnesota Statutes, section 11A.18, and any mortality gains or losses as determined by an independent actuary hired by the state legislature. The invested assets of MPRIF are assumed to earn a rate of return of 5 percent, compounded annually. TRA's pension assets in the MPRIF as of June 30, 1995, were

The TRA Fund Investment Portfolio June 30, 1995								
Basic (Active) Fund	Basic (Active) Fund Cost Market							
Pooled Accounts: Passive Equity	\$634,626,573	\$637,553,216						
Semi-passive Equity	544,656,163	616,225,926						
Active Equity	1,014,159,284	1,202,139,598						
Fixed Income	1,286,034,728	1,312,023,604						
Int'l Passive	192,084,300	231,378,130						
Int'l Country	74,033,758	77,604,407						
Int'l Active	139,728,432	149,799,590						
Real Estate	214,030,057	205,344,491						
Venture Capital	213,268,774	245,592,737						
Resources Pool	42,648,314	43,734,504						
Total	\$4,355,270,383	\$4,721,396,203						
Short-Term Pooled Cash	57,634,516	57,634,516						
MPRIF Account	3,790,813,000	4,352,778,435						
Total Invested	\$8,203,717,899	\$9,131,809,154						

\$3,790,813,000. Interest on late reserve transfers is a normal transfer with interest at the 8.5% rate required by statute and is offset by earnings of the regular fund. These costs totalled \$2,008,430 for fiscal year 1995. Investment income from MPRIF for fiscal year 1995 was \$297,153,020.

In accordance with Minnesota Statutes, section 11A.18, subdivision 9, benefits may be increased periodically. Each year, retirees will receive an inflation-based adjustment equal to 100% of inflation, up to a maximum of 3.5%. If investment returns are above the 5.0% actuarial and 3.5% inflation assumptions, retirees will also receive an earnings-based adjustment. The formula provided for a benefit increase of 6.3954% for eligible retirees, effective January 1, 1996. The increase is divided into a 3.1% inflation component and a 3.2954% excess earnings component.

#### f. 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; restricted participation in registered mutual funds; and restricted participation in foreign securities.

#### g. 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. TRA does not own any investments that are considered

securities for purposes of assessing credit risk. All TRA investments are in the Minnesota State Board of Investment-administered pools or openend mutual funds. These investments are not considered securities for purposes of credit risk classification.

#### h. Investment Information

Information about the primary government's (State of Minnesota) investments, including credit risk classification, can be obtained from the Minnesota Department of Finance, 400 Centennial Building, 658 Cedar Street, St. Paul, Minnesota 55155. Information on Investment activity and a listing of specific investments owned by the pooled accounts can be obtained from the Minnesota State Board of Investment at Suite 105, MEA Building, 55 Sherburne Avenue, St. Paul, Minnesota 55155.

#### 3. Funding Status and Progress

#### a. Pension Benefit Obligation Disclosure

The amount shown on the following page 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 TRA'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 TRA, discussed in Note 1e. The pension benefit obligation was determined as part of an actuarial valuation of the plan as of July 1, 1995. Significant actuarial assumptions used in determining the pension benefit obligation include (a) a rate of return of 8.5% per year preretirement and 5.0% per year post-retirement, compounded annually, (b) projected salary increases of 5.0% per year compounded annually attributable to inflation, and additional projected salary increases ranging from 0.25% to 2.25%,

depending on age, attributable to seniority/merit. At June 30, 1995, the unfunded pension benefit obligation was \$823,567,000 as shown in the table below:

#### 4. Contributions Required and **Contributions Made**

TRA's funding policy provides for periodic contributions at actuarially determined rates. These rates, expressed as level percentages of annual covered payroll, are determined to accumulate sufficient assets for paying benefits. Level percentage of payroll contribution rates are calculated by using the entry age normal cost actuarial funding method described in Note 1e. TRA also uses the level percentage of payroll method to amortize the unfunded liability over a closed period ending June 30, 2020. The current payroll contribution rates are stated in Note 1d.

Contributions totaling \$323,207,563 (\$179,671,657 employer and \$143,535,906 employee) were made in accordance with the actuarially determined contribution requirements. On page 50 these contributions are sufficient to meet the required normal costs, amortization of the unfunded liability and administrative costs. The sufficiency, as a

percent of covered payroll is .36%. This translates into a contribution sufficiency of about \$8.25 million for fiscal year 1995. The Legislative Commission on Pensions and Retirement (LCPR) annually reviews the adequacy of TRA's statutory contributions.

The amount of employee contributions increased by \$42.7 million for fiscal year 1995 as compared to the previous fiscal year. The increase was a result of a benefit improvement passed by the 1994 Legislature funded solely by TRA member contributions. For TRA Coordinated plan members, the employee contribution rate rose from 4.5% to 6.5% of salary. For Basic Plan members, the rate increased from 8.5% to 10.5%. The rates were effective July 1, 1994.

#### 5. Historical Trend Information

Historical trend information designed to provide information about the TRA's progress made in accumulating sufficient assets to pay benefits when due is presented on pages 24 and 51.

#### 6. Reserve Accounts

#### a. Member Reserves

**Pension Benefit Obligation:** Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits \$ 4,069,675,000 Current Employees: Accumulated employee contributions including allocated investment income \$ 2,397,859,000 2,306,963,000 Employer-financed vested Employer-financed nonvested 275,152,000 Total pension benefit obligation \$ 9,049,649,000 Net assets available for benefits at cost (\$8,226,082,000)(Market value is \$8,592,208,000) Unfunded benefit obligations 823,567,000

Accumulated member contributions, without interest, less the amounts refunded, are recorded in the member reserve. Accumulated member contributions for current retirees are transferred to the Minnesota Post Retirement Investment Fund (MPRIF) upon retirement. Employees who terminate their employment prior to retirement may elect to receive a refund of their contributions plus interest or wait for a deferred annuity.

#### b. Benefit Reserves

Employer contributions and investment income are recorded in the Benefit Reserve. Administrative expenses, survivor and disability benefits, investment management fees, and interest paid to MPRIF for late

reserve transfers are paid from the Benefit Reserves. Also included in this reserve account is the unfunded accrued liability which is the actuarially determined amount necessary to place the retirement fund on a fully funded basis.

#### c. MPRI Fund Reserves

For all retiring members, the reserves required to fully fund the actuarial cost of the member's annuity are transferred to the Minnesota Post Retirement Investment Fund (MPRIF) at retirement. Income distributed by MPRIF is recorded as a revenue, while benefit payments are recorded as an expense. Reserves transferred for each retiree are designated as an annuity awarded. Any mortality gains or losses as determined by an independent actuary hired by the state legislature are an annual adjustment to value of the account.

#### 7. Cash

Cash on deposit consists of year-end receipts not processed as of the investment cutoff deadline on June 30. TRA cash funds are held in the state treasury, commingled with other state funds. Minnesota Statutes, section 9.031, requires that deposits be secured by depository insurance or a combination of depository insurance and collateral securities held in the state's name by an agent of the state. Such insurance and collateral shall be in amounts sufficient to ensure that deposits do not exceed 90 percent of the sum of the insured amount and the market value of the collateral. Throughout fiscal year 1995, the combined depository insurance and collateral was sufficient to meet legal requirements and secure all TRA deposits.

#### 8. Accounts Receivable

Amounts classified as accounts receivable consist primarily of member and employer contributions received after fiscal year end for salaries earned prior to June 30, 1995. Under Minnesota Statutes, section 354.52, subdivision 4, TRA employers must remit contributions at least monthly. If contributions are not remitted by the 15th day of the month following

withholding, interest at a rate of 8½ percent, compounded annually, is assessed. If contributions are not received within 60 days of notification by TRA, the Commissioner of Finance is authorized to deduct the balance due TRA from state aids or appropriations due to that employer unit.

#### 9. Operating Lease

TRA is committed under a lease agreement for rental of office and storage space through March 31, 1999. For accounting purposes, this lease is considered an operating lease. Lease expenditures for fiscal year 1995 totaled \$200,371. Future minimum rental payments required as of June 30, 1995 are as follows:

Fiscal Year Ended June 30	Amount
1996	\$208,415
1997	216,703
1998	225,356
1999	174,045
Total	\$824,519

(6)

### **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	Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4) ÷ (5)
1986	3,000,863	4,054,734	74.0%	1,053,871	1,406,797	74.9%
1987	3,525,684	4,464,496	80.0%	939,812	1,503,546	62.5%
1988	3,905,264	4,849,460	80.5%	944,196	1,594,391	59.2%
1989	4,467,274	5,549,423	80.5%	1,082,149	1,749,856	61.8%
1990	5,045,508	6,029,037	83.7%	983,529	1,785,459	55.1%
1991	5,513,281	6,536,973	84.3%	1,023,692	1,874,365	54.6%
1992	6,240,491	6,996,540	89.2%	756,049	1,934,014	39.1%
1993	6,923,414	7,607,562	91.0%	684,148	2,025,000	33.8%
1994	7,592,215	8,463,676	89.7%	871,461	2,104,578	41.4%
1995	8,226,082	9,049,649	90.9%	823,567	2,197,262	37.5%

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 TRA's funding status on an ongoing basis. Analysis of this percentage (column 3) 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 (column 6) approximately adjusts for the effects of inflation and aids analysis of TRA's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the retirement fund.

<sup>\*</sup>At cost (see Note 1e).

# Ten Year Summary of Revenue **By Source**

Year Ended	Member Contributions	Employer Contributions	Net Investment	Other	Total
<u>June 30</u>	Contributions	Contributions	<u>Income</u>	Other_	
1986	68,203,337	134,298,853	368,917,920	596,378	572,016,488
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
1989	81,728,962	160,288,707	490,671,524	915,744	733,604,937
1990	84,542,414	166,098,804	520,610,905	926,288	772,178,411
1991	89,313,081	159,439,219	430,877,172	1,964,986	681,594,458
1992	91,505,605	162,369,508	712,965,243	1,942,689	968,783,045
1993	94,709,399	168,070,511	688,071,570	2,347,431	953,198,911
1994	100,803,239	171,854,594	710,189,034	8,752,052	991,598,919
1995	143,535,906	179,671,657	666,099,808	553,171	989,860,542

# **Ten Year Summary of Expenditures** By Type

Ended June 30	Retirement Benefits	Survivor Benefits	Disability Benefits	Refunds	Administrativ Expenses	e Other	Total
June 30	————	Delicitis			Expenses		
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
1989	156,417,938	2,267,668	2,164,380	5,347,598	2,493,783	2,903,073	171,594,440
1990	174,693,669	2,641,650	2,456,735	6,445,983	2,631,691	5,074,347	193,944,075
1991	194,589,338	2,921,349	2,904,585	5,554,181	2,790,089	5,061,999	213,821,541
1992	220,352,768	3,314,799	3,399,088	5,494,749	2,895,659	6,116,742	241,573,805
1993	249,018,533	3,719,037	3,892,680	4,749,970	3,124,192	5,770,675	270,275,087
1994	300,482,282	4,341,112	4,213,376	3,583,342	3,338,007	6,838,750	322,796,869
1995	328,764,719	5,125,383	4,967,050	4,619,063	3,665,748	8,854,935	355,996,898

# **Comparative Administrative Expenses For the Years Ended June 30, 1995 and 1994**

Personnel Services:	1995	1994
Salaries	\$1,882,208	\$1,851,380
<b>Employer Contributions to Retirement</b>	148,376	145,367
Employer Contributions to Social Security	138,596	136,386
Insurance Contributions	186,422	178,236
Employee Training	18,352	12,244
Workers Compensation	1,988_	1,154
Subtotal	2,375,942	2,324,767
Professional Services:		
Actuarial	80,421	93,072
Audit	26,120	34,003
Legal	20,685	9,986
Medical	33,534	26,790
Computer	76,413	43,592
Management Consultant	18,342	3,350
Subtotal	255,515	210,793
Office Administration:		
Copying and Printing	223,366	109,545
Department Head Expenses	1,408	1,324
Depreciation of Equipment	72,558	63,010
Dues and Subscriptions	7,353	4,229
Equipment Rental	2,187	1,586
Insurance	3,223	2,922
Office Space	223,646	193,669
Office Supplies	70,029	39,903
Postage	280,429	181,805
Repairs and Maintenance	46,024	44,409
State Indirect Costs	29,414	39,507
Telephone	33,167	36,934
Travel - Employee	27,309	24,934
Miscellaneous	4,929	43,504
Subtotal	1,025,042	787,281
Board of Trustees:		
Substitute Teachers	1,419	1,510
Travel	7,830	13,657_
Subtotal	9,249	15,167
Total Administrative Expenses	\$3,665,748	\$3,338,008

# **Investments Section**



# **Investment Summary**

The assets of the Teachers Retirement Association are invested under the direction and authority of the State Board of Investment (SBI). The investment portfolio for the active members of the Teachers Retirement Fund has a market value of approximately \$4.78 billion. In addition, TRA's share of the assets of the Minnesota Post Retirement Investment Fund (MPRIF) from which retiree benefits are paid, is approximately \$3.79 billion. The SBI is comprised of Governor Arne H. Carlson (Chair), State Auditor Judith H. Dutcher, State Treasurer Michael A. McGrath, Secretary of State Joan Anderson Growe, and Attorney General Hubert H. Humphrey III. Howard Bicker serves as Executive Director of the Board.

The Legislature has established a seventeen member Investment Advisory Council (IAC) to advise the Board and its staff on investment-related matters.

- The Board appoints ten members experienced in finance and investment. These members traditionally have come from the Minneapolis and St. Paul corporate investment community.
- The Commissioner of Finance, the Executive Director of the Teachers Retirement Association and the Executive Directors of the other two statewide retirement systems are permanent members of the Council.
- Two active employee representatives and one retiree representative are appointed to the Council by the Governor.

#### The members of the Investment Advisory Council: (as of December 1995)

Gary Austin

**Executive Director** 

Teachers Retirement Association

David Bergstrom **Executive Director** 

Mn State Retirement System

John E. Bohan

Vice Pres., Pension Investments

Grand Metropolitan-Pillsbury

Roger Durbahn

Governor's Appointee

Retiree Representative

Kenneth F. Gudorf

Chief Executive Officer

Agio Capital Management, LLC

Laurie Fiori Hacking **Executive Director** 

Public Employees Retirement

Assoc.

P. Jay Kiedrowski

Executive Vice President

Norwest Bank Minnesota

Laura M. King Commissioner

Mn Department of Finance

Han Chin Liu

Governor's Appointee

Active Employee Representative

Judith W. Mares

Financial Consultant

Mares Financial Consulting, Inc.

Malcolm W. McDonald\*\*

Director and Corporate Secretary

Space Center, Inc.

Gary R. Norstrem

Sr. Vice Pres., Institutional Mktg.

Piper Capital Management

Daralyn Peifer

Manager, Benefits Finance

General Mills, Inc.

Patrick Sexton

Governor's Appointee

Active Employee Representative

Professor Michael Stutzer

Carlson School of Management

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Deborah Veverka

Vice Pres., Pension Investments

Honeywell, Inc.

Jan Yeomans\*

Treasurer

3M Co.

\*Chair

\*\*Vice-Chair

Richards & Tierney, Inc. of Chicago are general consultants to the SBI. Pension Consulting Alliance, of Studio City, California serves as a consultant for international investments. 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 and 356A.

The Council has formed four committees organized around broad investment subjects relevant to the Board's decision-making: Asset Allocation, Domestic Managers, International Managers and Alternative Investments.

All proposed investment policies are reviewed by the appropriate Committee and the full Council before they are presented to the Board for action.

### **Basic Retirement Funds**

#### **Basic Funds Investment Objectives**

The State Board of Investment (SBI) has one overriding responsibility with respect to its management of the Basic Funds: to ensure that sufficient funds are available to finance promised benefits at the time of retirement.

The Basic Funds invest the pension contributions of most Minnesota public employees, including TRA active members, during their working years. Employee and employer contribution rates are specified in state law as a percentage of an employee's salary. The rates are set so that contributions plus expected investment earnings will cover the projected cost of promised pension benefits. In order to meet these projected pension costs, the Basic Retirement Funds must generate investment returns of at least 8.5% on an annualized basis, over time.

Normally, pension assets will accumulate in the Basic Retirement Funds for thirty to forty years during an employee's years of active service. This provides the Basic Funds with a long investment time horizon and permits the Board to take advantage of the long run return opportunities offered by common stocks and other equity investments in order to meet its actuarial return target.

The Board measures the performance of the Basic Retirement Funds relative to a composite of market indices that is weighted in a manner that reflects their long-term asset allocation policy. The Basic Funds are expected to exceed the composite index over a five year period. Performance is measured net of all fees and costs to assure that the Board's focus is on its true net return.

#### **Basic Funds Asset Allocation**

The allocation of assets among stocks, bonds, and alternative investments can have a dramatic impact on investment results. In fact, asset allocation decisions overwhelm the impact of individual security selection within a total portfolio. Consequently, the Board has focused considerable attention on the selection of an appropriate long-term asset allocation policy for the Basic Funds. The following table shows the actual asset mix of the Basic Fund at the end of fiscal year 1995:

Asset Mix Basic Funds June 30, 1995				
	Actual Asset Mix	Policy Target		
Domestic Stocks	51.4%	50.0%		
International Stocks	9.6%	10.0%		
Bonds	27.7%	24.0%		
Alternative Assets	10.2%	15.0%		
Unallocated Cash	1.1%	1.0%		
Total	100.0%	100.0%		

#### **Total Return Vehicles**

The SBI invests the majority of the Basic Funds' assets in common stocks (both domestic and international). A large allocation is consistent with the investment time horizon of the Basic Funds and the advantageous long-term risk-return characteristics of common stocks. Including international stocks in the asset mix allows the SBI to diversify its holdings across world markets and offers the opportunity to enhance returns and reduce the risk/volatility of the total portfolio. The rationale underlying the inclusion of *private* equity (e.g. venture capital) is similar. However, the relatively small size of the private equity market presents a practical limit to the amount that may be invested in this asset class.

The Board recognizes that this sizable policy allocation to common stock and private equity likely will produce more volatile portfolio returns than a more conservative policy focused on fixed income securities. It is understood that this policy may result in quarters or even years of disappointing results. Nevertheless, the long run return benefits of this policy are expected to compensate for the additional volatility.

#### **Diversification Vehicles**

The Board includes other asset classes in the Basic Funds both to provide some insulation against highly inflationary of deflationary environments and to diversify the portfolio sufficiently to avoid excessive return volatility.

Real estate and resource (oil and gas) investments provide an inflation hedge that other financial assets cannot offer. In periods of rapidly rising prices, these "hard" assets have appreciated in value at a rate at least equal to the inflation rate. Further, even under more normal financial conditions, such as low to moderate inflation, the returns on these assets are not highly correlated with common stocks. As a result, their inclusion in the Basic Fund serves to dampen return volatility.

The allocation to bonds acts as a hedge against a deflationary economic environment. In the event of a major deflation, high quality fixed income assets, particularly long-term bonds, are expected to protect principal and generate significant capital gains. And, like real estate and resource funds, under normal financial conditions, bonds help to diversify the Basic Fund, thereby controlling return volatility.

#### **Basic Retirement Fund Results**

The pension contributions of active TRA members are invested through the Basic Retirement Funds administered by SBI. The Basic Retirement Funds produced a total rate of return for fiscal year 1995 of 15.8%. Over the last five years, the Basic Funds have generated an annualized return of 10.6%. The current market value of the total Basic Fund is about \$11.1 billion. The TRA share of the fund is approximately 40% or \$4.41 billion. Performance of specific money managers is presented later in this investment section.

As stated earlier, the Basic Funds are expected to exceed the return of a composite

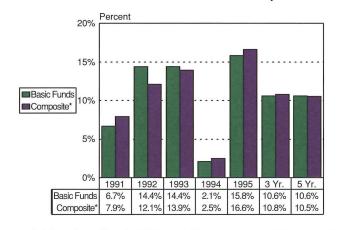
of market indices over a five-year period. Performance relative to this standard will measure two

- The ability of the managers selected by the SBI, in aggregate, to add value to the returns available from the broad capital markets.
- The impact of the SBI's rebalancing activity. The SBI rebalances the total fund when market movements take the stock or bond segments above or below their long-term asset allocation targets. The policy imposes a low risk discipline of buy low-sell high on a total fund basis.

For the five-year period ending June 30, 1995, the Basic Funds out performed the composite index by 0.1 percentage point annualized. The primary contributors to the value added came from above index performance by the bond and real estate segments of the portfolio. Value added by these groups of managers was sufficient to counterbalance below index performance by the domestic stock segment during the period. The SBI's policy of periodically rebalancing back to asset allocation targets also contributed importantly to the overall value added during the last five years.

Actual returns relative to the total fund composite index over the last five years are presented in the following graph:

### Basic Fund's Performance vs. Composite Index



<sup>\*</sup> Adjusted to reflect the SBI's restricitions on liquor and tobacco stocks through 3/31/93 and American Home Product restriction through 10/31/93.

# Minnesota Post Retirement **Investment Fund**

When a member retires, the Teachers Retirement Association transfers assets on behalf of the member to the Minnesota Post Retirement Investment Fund (MPRIF). MPRIF includes the assets of retired public employees covered by nine statewide retirement plans; the eight plans which participate in the Basic Retirement Funds as well as the Legislative and Survivors Retirement Fund. The assets of MPRIF finance monthly annuity payments paid to retirees. On June 30, 1995, MPRIF had a market value of \$10.2 billion; TRA's retirees' portion of this value is approximately \$4.3 billion or 42 percent. The MPRIF (Post Fund) generated an investment return of 16.7 percent for fiscal year 1995.

#### **MPRIF Investment Objectives**

The investment time horizon of the Post Fund is 15-20 years and corresponds to the length of time a typical retiree can be expected to draw benefits. While this is shorter than the time horizon of the Basic Funds, it is still sufficiently long to allow the State Board of Investment (SBI) to take advantage of the long run return opportunities offered by common stock in order to meet its actuarial return target (5%, compounded annually) as well as to finance retirement benefit increases.

The SBI measures the performance of the Post Retirement Fund relative to a composite of market indices that is weighted in a manner that reflects its long-term asset allocation policy. The Post Fund is expected to exceed the composite index over a five year period. Performance is measured net of all fees and costs to assure that the SBI's focus is on true net return.

#### MPRIF Asset Allocation

The SBI revised its asset allocation strategy for the Post Fund in fiscal year 1993 in order to reflect the goals associated with the new post retirement benefit increase formula (described later). Throughout fiscal year 1993, the actual asset mix of the Post Fund

moved gradually toward a 50% allocation to common stocks. During fiscal year 1994, the Board added allocations to international stocks and alternative investments. The current long-term asset allocation policy and actual asset mix of the Post Fund at the end of fiscal year 1995 is presented in the following table:

	Actual	Policy
	Assets	Target
Domestic Stocks	51.3%	50.0%
Int'l. Stocks	9.7	10.0
Bonds	35.3	32.0
Alternative Assets	0.1	5.0
Unallocated Cash	3.6	3.0
Total	100.0%	100.0%

The SBI invests the majority of the Post Fund's assets in common stocks (both domestic and international). A large allocation is consistent with the moderately long time horizon of the Post Fund and the advantageous long term risk-return characteristics of common stocks. Including international stocks in the asset mix allows the SBI to diversify its holdings across world markets and offers the opportunity to enhance returns and reduce the risk/volatility of the total portfolio.

The SBI recognizes that this sizable allocation will be likely to produce more volatile portfolio returns than a more conservative policy focused on fixed income securities. It is understood that this policy may result in quarters or even years of disappointing results. Nevertheless, the long run return benefits of this policy are expected to compensate for the additional volatility.

The SBI includes other asset classes in the Post Fund both to provide some insulation against highly deflationary environments and to diversify the portfolio sufficiently to avoid excessive return volatility.

The bonds in the Post Fund act as a hedge against a deflationary economic environment. In the event of a major deflation, high quality fixed income assets, particularly long term bonds, are expected to protect principal and generate significant gains. And, under

more normal financial conditions, bonds diversify the Post Fund, thereby controlling return volatility on a year-to-year basis.

Yield oriented alternative investments are designed to provide the opportunity for higher long-term returns than those typically available from bonds yet still generate sufficient current income to be compatible with the objectives of the post Fund. Typically, these investments (e.g. business loan participations and income producing private placements) are structured more like fixed income securities with the opportunity to participate in the appreciation of the underlying assets. While these investments may have an equity component, they display a return pattern more like a bond. As such they will help reduce the volatility of the total portfolio, but should also provide the opportunity to generate higher returns relative to more traditional bond investments.

#### MPRIF Investment Management and **Performance**

Effective July 1, 1993, assets of the Post Fund were transferred to external managers. In order to gain greater operating efficiency, the Post Fund shares the same domestic stock, bond and international stock managers. The Post Fund is expected to exceed the return of a composite of market indices over a five-year period. Since the asset allocation changed dramatically during fiscal year 1993, performance relative to this standard is available only for fiscal years 1994 and 1995. The Post Fund's performance trailed its composite market index by 0.3 percentage point for the two-year period since July 1, 1993.

The primary contributor to underperformance for the two year period was below market returns from the domestic stock segment.

Actual returns relative to the total fund composite index over the last two years are shown in the graph on the right.

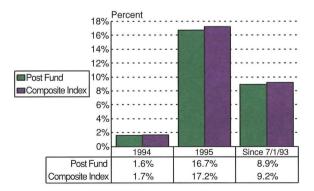
#### **MPRIF** Benefit Increase Formula

The retirement benefit increase formula of the Post Fund was changed through legislation enacted by the 1992 Legislature. The new formula was effective beginning in fiscal year 1993 and is based on a combination of two components:

- Inflation Component. Each year, retirees will receive an inflation-based adjustment equal to 100% of inflation, up to a maximum of 3.5% specified in statute. The inflation component will be granted regardless of investment performance. The limit, or cap, will maintain the actuarial soundness of the entire plan and is the difference between the 8.5% return assumption for the Basic Funds, and the 5.0% return assumption for the Post Fund.
- Investment Component. Each year, retirees will also receive an investment-based adjustment, provided net investment gains are above the amount needed to finance the Post Fund's actuarial assumption of 5% and the inflation adjustment. Investment gains and losses will be spread over five years to smooth out the volatility of returns. In addition, all accumulated investment losses must be recovered before an investment-based adjustment is granted.

Because the investment-based component of the new formula will not be implemented fully during the

### Post Fund's Performance vs. Composite Index



<sup>\*</sup> Adjusted to reflect the SBI's restricitions on liquor and tobacco stocks through 3/31/93 and American Home Product restriction through 10/31/93.

initial years, a temporary transition adjustment may be paid during a phase-in period. The transition adjustment provided in law is:

FY 1993	1.00%
FY 1994	0.75%
FY 1995	0.50%
FY 1996	0.25%

By statute, retirees will receive either the investment-based component or the transition adjustment, whichever is higher, for the respective year.

The new formula has two primary advantages:

- It provides benefit increases that are more sensitive to inflation than those granted under the old formula.
- It allows the Post Fund to maximize the long-term earning power of its assets. Without the need to generate the higher levels of current income required under the old formula, the Post Fund can increase its stock exposure and thereby enhance its prospects for higher total rates of return over the long run.

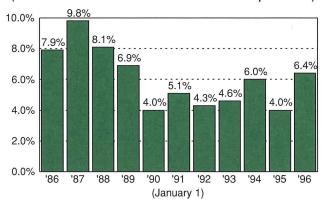
The Post Fund will provide a benefit increase of 6.3954% for fiscal year 1995 payable January 1, 1996. As noted earlier, this increase is comprised of two components:

- Inflation adjustment of 3.1% which is equal to 100% of the reported Consumer Price Index for wage earners (CPI-W) increase for the twelve months ending June 30, 1995. (This is the same inflation index used to calculate increases in Social Security payments.)
- Investment adjustment of 3.2954%. This represents one-fifth of the market value in excess of the amount needed to cover the actuarial assumed rate of return (5.0%) and the inflation adjustment (3.1%).

Benefit increases granted for the past ten years are shown in the graph below. Prior to fiscal year 1993, the benefit increase formula was dependent on the level of excess realized income generated by the Post Fund.

The 6.3954% increase granted for fiscal year 1995 represents the third post retirement adjustment provided under the new benefit increase formula described above.

### Recent Post Retirement Benefit Increases (Rounded to the nearest tenth of a percent)



The Basic Retirement Fund and the Minnesota Post Retirement Investment Fund (MPRIF) share many of the same stock and bond managers. This is accomplished by grouping managers together, by asset class, into several Investment Pools. The individual funds participate in the Investment Pools by purchasing units which function much like shares of a mutual fund.

This investment management structure allows the State Board of Investment (SBI) to gain greater operating efficiency within asset classes and to keep money management costs as low as possible for all participants. Further information on the investment activity and a listing of specific investments owned by the pooled accounts can be obtained from the Minnesota State Board of Investment at Suite 105, MEA Building, 55 Sherburne Avenue, St. Paul, MN 55155.

# Stock and Bond Money Managers Retained by the SBI

#### **Domestic Stocks**

The stock manager performance for FY 1995 was as follows:

	Total	Benchmark
Active Managers	Portfolio Return	Return
Alliance Capital	30.1%	27.1%
Brinson Partners	22.0	24.7
Forstmann Leff	19.1	26.5
Franklin Portfolio	23.5	24.7
GeoCapital	22.2	32.6
Investment Advisers	24.7	25.4
IDS Advisory	21.4	26.8
Independence Associates	22.5	26.1
Jundt Associates	26.2	32.9
Lincoln Capital	30.7	29.5
Lynch & Mayer	23.0	34.8
Oppenheimer	27.9	22.3
Waddell & Reed	20.6	26.5
Weiss Peck & Greer	26.2	34.2
Semi-Passive Managers		
Franklin	17.7*	18.0*
J.P. Morgan	18.5*	18.0*
Wells Fargo Nikko	19.2*	18.0*
Passive Manger		
Wilshire Associates	21.3	22.2
Aggregate Domestic Stock Pool**	23.0	_
Stock Segment Performance Standards		
Wilshire 5000 Adjusted***	24.7	_

<sup>\*</sup> Semi-passive managers were retained on January 1, 1995, therefore the return figures include data for only two quarters.

The annualized return for the domestic stock portfolio for the last 5 years is 11.5%.

#### The Emerging Managers Program

The Emerging Managers Program is designed to add performance value to the stock portfolio by investing funds with smaller firms which have the potential for strong returns during the initial years of their existence.

	Total	Benchmark
	Portfolio Return	Return
CIC Asset Management	19.0%	25.4%
Cohen Klingenstein & Marks	26.1	26.1
Compass Capital	28.9	24.1
Kennedy Capital	16.1	20.1
New Amsterdam	20.3	24.4
Valenzuela Capital	15.5	26.1
Wilke/Thompson	41.9	25.2
Winslow Capital	28.0	30.5
Zevenbergen Capital	26.7	30.5

<sup>\*\*</sup> includes Emerging Managers Program (see below)

<sup>\*\*\*</sup> Adjusted for the SBI's restriction on liquor and tobacco through 3/31/93 and American Home Product restriction through 10/31/93.

# Stock and Bond Money Managers Retained by the SBI

#### **International Stocks**

A summary of international stock manager performance for FY 1995 was as follows:

	Total
Active Managers	Portfolio Return
Baring International	0.2%
Brinson Partners	0.9
Marathon Asset Mgmt.	(2.6)
Rowe Price-Fleming	5.6
Scudder, Stevens & Clark	5.8
Templeton Investment Counsel	12.2
Passive Manager	
State Street Global Advisors	2.4
International Pool	2.9
Performance Standard	
EAFE Free*	1.7

<sup>\*</sup>Morgan Stanley Capital International Index of Europe, Australia, and the Far East, including dividends and net taxes. EAFE Free includes only those stocks available to foreign investors. The EAFE Free standard is also the benchmark return for each manager listed.

The annualized return for the international portfolio since its October 1, 1992 inception is 13.2%.

#### **Domestic Fixed Income**

#### A summary of bond manager performance for FY 1995 was as follows:

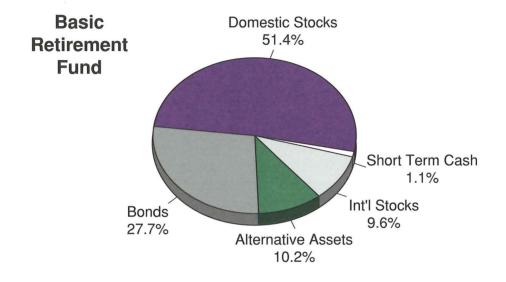
	Total
Active Managers	Portfolio Return
BEA Associates	13.5%
Investment Advisors	10.4
IDS Advisory	13.5
Miller, Anderson & Sherrerd	12.4
Standish, Ayer & Wood	11.3
TCW	13.7
Western Asset Management	14.7
Semi-Passive Managers	
Fidelity Management	11.2
Goldman Sachs	12.7
Lincoln Capital	12.7
Bond Pool	12.5
Performance Standards	
Lehman Brothers Aggregate Bond Index*	12.6

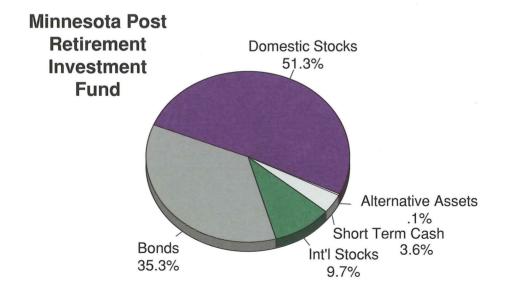
<sup>\*</sup>The bench mark return for each manager is the Lehman Brothers Aggregate Bond Index.

The annualized return for the bond portfolio for the last 5 years averaged 9.9%.

# **Portfolio Distribution Teachers Retirement Fund**

June 30, 1995





# **TRA Basic Fund**

# **Comparative Statement of Earnings\*** For the Years Ended June 30, 1995 and 1994

### Unaudited

Investment Earnings:	1995	1994
Interest on Cash Equivalent Investments	\$ 3,889,398	\$ 1,681,806
Managed Pooled Accounts	302,656,920	298,673,802
Net Gain on Sales of Pools	62,358,827	93,976,597
Earnings from Investments	\$ 368,905,145	\$394,332,205
Miscellaneous Interest Income:		
Miscellaneous Interest Income	60,789	61,502
Total Earnings and Interest Income	\$ 368,965,934	\$394,393,707
Less Investment Management Fees:		
Investment Management Fees	(6,846,505)	(6,224,373)
Total Net Investment Income	\$ 362,119,429	\$388,169,334
	*	
Less Transfers to MPRIF	(2,008,430)	(614,378)
Undistributed Excess Earnings	384,489	(2,261,297)
Total Income Available for Distribution	\$ 360,495,488	\$385,293,659
Distribution:		
Teachers' Deposits	\$ 226,102,685	\$240,583,748
Employer Contributions	129,019,150	144,313,625
Excess Earnings Reserve	5,373,653	396,286
Total Distribution	\$ 360,495,488	\$385,293,659

<sup>\*</sup>Basic TRA Fund only. Does not include earnings of TRA's participation in the Minnesota Post Retirement Investment Fund (MPRIF).

Per Minnesota Statutes, section 354.07, subdivision 5, the annual interest rate for money purchase accounts is 8.5% for 1995 and 10.0% for 1994.

# **Summary of Investments\*** As of June 30, 1995

	В	ook	Ma	rket
	Book Value	Total Book Value	Market Value	Total Market Value
Fixed Income Investments:				
Fixed Income Pools	\$ 564,588,171		\$ 572,378,060	
Bond Index Pool	721,446,557		739,645,544	
Total Fixed Income Investments		\$1,286,034,728		\$1,312,023,604
<b>Equity Investments:</b>				
Indexed Equity Pool	\$ 634,626,573		\$ 637,553,216	
Active Managed Equity Pool	1,014,159,284		1,202,139,598	
International Passive Equity Pool	192,084,300		231,378,130	
International Active Country Pool	74,033,758		77,604,407	
International Active Stock Pool	139,728,432		149,799,590	
Semi-Passive Domestic Pool	544,656,163		616,225,926	
Total Equity Investments		\$2,599,288,510		\$2,914,700,867
Alternative Investments:				
Venture Capital Pool	\$ 213,268,774		\$ 245,592,737	
Real Estate Fund Pool	214,030,057		205,344,491	
Resource Fund Pool	42,648,314		43,734,504	
Total Alternative Investments		\$ 469,947,145		\$ 494,671,732
<b>Short Term Investment:</b>				
Short Term Cash Equivalents	\$ 57,634,516		\$ 57,634,516	
Total Short Term Investments		\$ 57,634,516		\$ 57,634,516
Total Investments		\$4,412,904,899		\$4,779,030,719

<sup>\*</sup>Regular TRA Fund, does not include investments in the Minnesota Post Retirement Investment Fund.

### **General Information Regarding Investment of Funds**

Investments for the State Teachers Retirement Association are made by the State Investment Board 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 11A.24. State Street Bank and Trust of Boston acts as custodian of securities for the Regular TRA Fund and the Post Retirement Investment Fund. Norwest Bank is the current custodian of short term investments of TRA. Examination and verification of securities held by the custodians is performed periodically by the Minnesota Legislative Auditor.

# **Actuarial Section**



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Wendell Milliman, F.S.A. (1976) Stuart A. Robertson, F.S.A. Chairman Emeritus

December 15, 1995

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

RE: Teachers Retirement Association Fund

Commission Members:

Pursuant to the terms of our Actuarial Services Contract, we have performed an actuarial valuation of the Fund as of July 1, 1995.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Teachers Retirement Association.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared 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 July 8, 1992.

Respectfully\_submitted,

Thomas K. Custis, F.S.A., M.A.A.A.

Consulting Actuary

William V. Hogan William V. Hogan, F.S.A., M.A.A.A.

Consulting Actuary

TKC/WVH/bh

Albany, Atlanta, Boston, Chicago, Dallas, Denver, Hartford, Houston, Indianapolis, Irvine, Los Angeles, Milwaukee, Minneapolis, New York, Omaha, Philadelphia, Phoenix, Portland, ME, Portland, OR, St. Louis, Salt Lake City, San Diego, San Francisco, Seattle, Tampa, Washington, D.C., Bermuda, Tokyo WOODROW MILLIMAN Member Firms in Principal Cities Worldwide

## **Summary of Actuarial Assumptions and Methods**

1.	Interest:	Pre-Retirement 8.5% per annum Post-Retirement 5.0% per annum	<u>Age</u> 20	Salary Increases 7.25
2.	Salary Increases:	Reported salary for prior fiscal year, with new hires	25	7.10
		annualized, increased according to the table on the right to current fiscal year and annually for each	30	7.00
		future year.	35	7.00
3.	Mortality:	Pre-Retirement:	40	6.70
		Male - 1983 Group Annuity Mortality Table for males set back eight years.	45	6.05
		Female - 1983 Group Annuity Mortality Table	50	5.60
		for females set back four years.	55	5.35
		Post-Retirement:  Male - Same as above except set back four years.  Female - Same as above except set back two years.	60	5.25

#### **Post-Disability:**

Male - 1977 Railroad Retirement Board Mortality for Disabled Annuitants. Female - 1977 Railroad Retirement Board Mortality for Disabled Annuitants.

4. Retirement Age:

Age 62, or if over age 62, one year from valuation date. In addition, 45% of Basic Members and 30% of Coordinated Members are assumed to retire each year that they are eligible for the Rule of 90.

5. Separation From Service:

Select and ultimate rates were based on plan experience as of June 30, 1989. Ultimate rates after the third year are illustrated in the Annual Separation table of sample values below. Select rates for the first three years are as follows:

	First Year	Second Year	Third Year
Less than 35	.3	.15	.1
35-44	.25	.125	.08
45-60	.3	.15	.1

#### **Annual Separation Rate Per 10,000 Employees** (Sample Values) **Disability** Withdrawal **Pre-Retirement Death** Male Female Male Female Male **Female** Age 20 3 1 600 600 30 4 3 565 565 6 7 5 210 210 8 40 50 15 11 70 70 17 17 28 0 60 48 63 63

6. Disability: Graduated rates illustrated in table of sample values on previous

page.

7. Expenses: Prior year expenses expressed as percentage of prior year payroll.

8. Return of Contributions: All employees withdrawing after becoming eligible for a deferred

> benefit were assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.

9. Family Composition: 85% of male members and 65% of female members are assumed to

be married. Female is three years younger than male. Assume

members have no children.

10. Social Security: N/A

11. Benefit Increases After Retirement: Payment of earnings on retired reserves in excess of 5% accounted

for by 5% post-retirement assumptions.

12. Special Consideration: Married Members assumed to elect subsidized joint and survivor

form of annuity as follows:

Males -- 15% elect 50% J&S option

50% elect 100% J&S option

Females -- 10% elect 50% J&S option

10% elect 100% J&S option

13. Actuarial Cost Method: Entry Age Normal Actuarial Cost Method with normal costs

> expressed as a level percentage of earnings. Under this method, Actuarial Gains (Losses) reduce (increase) the Unfunded Actuarial

Accrued Liability.

14. Asset Valuation Method: Cost Value plus one-third Unrealized Gains or Losses.

15. Payment on the Unfunded A level percentage of payroll each year to the statutory

**Actuarial Accrued Liability:** amortization date assuming payroll increases of 5% per annum.

# **Valuation Report Highlights** (Dollars in Thousands)

A. Contributions	1995	1994
1. Statutory Contributions – Chapter 354 % of Payroll	14.66%	14.66%
2. Required Contributions - Chapter 356 % of Payroll	14.30%	14.73%
3. Sufficiency (Deficiency) (A.1-A.2)	0.36%	(0.07%)
B. Funding Ratios		
Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$ 8,348,124	\$ 7,611,936
b. Current Benefit Obligations (Table 2)	\$ 9,049,649	\$ 8,463,676
c. Funding Ratio (a/b)	92.25%	89.94%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$ 8,348,124	\$ 7,611,936
b. Actuarial Accrued Liability (Table 3)	\$ 9,717,623	\$ 9,115,266
c. Funding Ratio (a/b)	85.91%	83.51%
3. Projected Benefit Funding Ratio (Table 2)		
a. Current and Expected Future Assets	\$12,234,567	\$11,407,437
b. Current and Expected Future Benefit Obligations	\$12,095,200	\$11,434,495
c. Funding Ratio (a/b)	101.15%	99.76%
c. Plan Participants		
1. Active Members		
a. Number	67,558	66,514
b. Projected Annual Earnings	\$ 2,325,059	\$ 2,235,636
c. Average Annual Earnings (Actual \$)	\$ 34,416	\$ 33,612
d. Average Age	42.90	42.80
c. Average Service	12.50	12.50
2. Others		
a. Service Retirements	21,458	20,563
b. Disability Retirements	379	345
c. Survivors	1,331	1,229
d. Deferred Retirements	5,103	4,499
e. Terminated Other Non-vested	16,411	16,147
f. Total	44,682	42,783

## **Actuary's Commentary**

### Purpose

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

### Report Highlights

The financial status of the Plan 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. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 92.25%. The corresponding ratio for the prior year was 89.94%.
- 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 by the State. For 1995 the ratio is 85.91%, which is an increase from the 1994 value of 83.51%.
- The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 101.15% shows that the current statutory contributions are adequate.

### **Asset Information (Table 1)**

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 Plan participates in the Minnesota Post Retirement Investment Fund (MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investment (SBI) will determine each Plan's portion of the excess earnings for the January benefit increase, as well as the Plan's allocated market share of MPRIF.

#### Actuarial Balance Sheet (Table 2)

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

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 2 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, 1995 Pension Benefit Obligation reported in Table 2 is reformatted for GASB reporting purposes in the table on the next page.

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits

\$4,069,675,000

Current Employees

Accumulated employee contributions including allocated investment income 2,397,859,000 Employer-financed vested 2,306,963,000 Employer-financed nonvested 275,152,000

Total Pension Benefit Obligation \$9,049,649,000

Net Assets Available for Benefits at Cost

\$8,226,082,000

Total Benefit Obligation Less Assets \$ 823,567,000 Funded Ratio 90.90%

### **Actuarial Cost Method (Table 3)**

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 3) to the actuarial balance sheet (Table 2) 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 3 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 2 and line A6, column 1, of Table 3).

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 of July 1, 2020, by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 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 4)

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. For a detailed analysis of the major components, refer to Table 4.

### **Contribution Sufficiency (Table 5)**

This report determines the adequacy of Statutory Contributions by comparing the Statutory Contributions of 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 5 shows the Plan has a contribution sufficiency since the Statutory Contribution Rate is 14.66% compared to the Required Contribution Rate of 14.30%.

### **Changes in Actuarial Assumptions**

There were no changes in Actuarial Assumptions for the current valuation.

#### **Changes in Plan Provisions**

There were no changes in Plan Provisions which affected plan costs for the current valuation.

# **Accounting Balance Sheet**

Table 1

### (Dollars in Thousands)

July 1, 1995

	, <u>M</u>	Iarket Value	Cost Value
A.	Assets		
	1. Cash, Equivalents, Short-term Securities	\$ 59,914	\$ 59,914
	2. Investments		
	a. Fixed Income	1,312,024	1,286,035
	b. Equity	3,409,373	3,069,236
	c. Real Estate	0	0
	3. Equity in Minnesota Post-Retirement Investment Fund (MPRIF)	3,790,813	3,790,813
	4. Other	42,991	42,991
В.	Total Assets	\$8,615,115	\$8,248,989
			-
C.	<b>Amounts Currently Payable</b>	\$ 22,907	\$22,907
D.	Assets Available for Benefits		
	1. Member Reserves	\$1,070,347	\$1,070,347
	2. Employer Reserves	3,731,048	3,364,922
	3. MPRIF Reserves	3,790,813	3,790,813
	4. Non-MPRIF Reserves	0	0
	5. Total Assets Available for Benefits	\$8,592,208	\$8,226,082
E.	<b>Total Amounts Currently Payable and</b>		
	Assets Available for Benefits	\$8,615,115	\$8,248,989
F.	Determination of Actuarial Value of Assets	×	фо. <b>22</b> с 202
	1. Cost value of Assets Available for Benefits (D5)	40 -00	\$8,226,082
	2. Market Value (D5)	\$8,592,208	
	3. Cost Value (D5)	8,226,082	
	4. Market Over Cost: (F2-F3)	\$ 366,126	
	5. 1/3 of Market Over Cost: (F4)/3		122,042
	6. Actuarial Value of Assets (F1 + F5)		\$8,348,124
	(Same as Current Assets)		

Actuarial Balance Sheet (Dollars in Thousands)			Table 2
July 1, 1995			
A. Current Assets (Table 1, F6)			\$ 8,348,124
B. Expected Future Assets			
Present Value of Expected Future Statutory Supple	mental Contribu	itions	1,508,866
2. Present Value of Future Normal Costs			2,377,577
3. Total Expected Future Assets			\$ 3,886,443
C. Total Current and Expected Future Assets			\$12,234,567
D. Current Benefit Obligations	Non-Vested	Vested	Total
1. Benefit Recipients			
a. Retirement Annuities		\$3,674,555	\$ 3,674,555
b. Disability Benefits		46,792	46,792
c. Surviving Spouse and Child Benefits		145,347	145,347
2. Deferred Retirements with Future Augmentation		187,866	187,866
3. Former Members without Vested Rights		15,115	15,115
4. Active members			
a. Retirement Annuities	12,675	4,540,724	4,553,399
b. Disability Benefits	218,659	0	218,659
c. Survivor's Benefits	42,900	0	42,900
d. Deferred Retirements	918	114,830	115,748
e. Refund Liability Due to Death or Withdrawal	0	49,268	49,268
5. Total Current Benefit Obligations	\$275,152	\$8,774,497	\$ 9,049,649
E. Expected Future Benefit Obligations			\$ 3,045,551
F. Total Current and Expected Future Benefit Obligations		\$12,095,200	
G. Current Unfunded Actuarial Liability (D5-A)			\$ ,701,525
H. Current and Future Unfunded Actuarial Liability (	F-C)		(\$ 139,367)

### **Determination of Unfunded Actuarial Accrued** Table 3 Liability (UAAL) and Supplemental Contribution Rate

(Dollars in Thousands)

July 1, 1995

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
	(1)	(2)	(3)=(1)-(2)
A. Determination of Actuarial Accrued Liabili	ty (AAL)		
1. Active			
a. Retirement Annuities	\$ 7,326,546	\$1,854,809	\$5,471,737
b. Disability Benefits	355,712	141,125	214,587
c. Survivor's Benefit	66,601	24,942	41,659
d. Deferred Retirements	176,951	96,015	80,936
e. Refunds Due to Death or Withdrawal	99,715	260,686	(160,971)
f. Total	\$ 8,025,525	\$2,377,577	\$5,647,948
<ol> <li>Deferred Retirements         with Future Augmentation</li> <li>Former Members without Vested Rights</li> <li>Annuitants in MPRIF</li> <li>Recipients Not in MPRIF</li> <li>Total</li> </ol> B. Determination of Unfunded Actuarial Accress	187,866 15,115 3,790,813 <u>75,881</u> <u>\$12,095,200</u> ued Liability (UA	\$2,377,577 AL)	187,866 15,115 3,790,813 75,881 \$9,717,623
1. AAL (A6)			\$9,717,623
2. Current Assets (Table 1, F6)			8,348,124
3. UAAL (B1 - B2)			\$1,369,499
<ol> <li>C. Determination of Supplemental Contribution</li> <li>Present Value of Future Payrolls through to</li> <li>Supplemental Contribution Rate (B3/C1)</li> </ol>		te of July 1, 2020	\$38,589,912 3.55%

Li (D	hanges in Unfunded Actuarial Accrued iability (UAAL) collars in Thousands) car Ending June 30, 1995	Table 4
<b>A.</b>	UAAL at Beginning of Year	\$1,503,331
В.	Change Due to Interest Requirements and Current Rate of Funding	
	1. Normal Cost and Expenses	\$ 241,086
	2. Contribution	(323,208)
	3. Interest on A, B1 and B2	124,293
	4. Total $(B1 + B2 + B3)$	\$ 42,171
C.	Expected UAAL at End of Year (A + B4)	\$1,545,502
D.	Increase (Decrease) Due to Actuarial Losses (Gains)	
	Because of Experience Deviations from Expected	
	1. Salary Increases	(\$ 155,334)
	2. Investment Return	(113,139)
	3. MPRIF Mortality	3,922
	4. Mortality of Other Benefit Recipients	3
	5. Other Items	88,545
	6. Total	(\$ 176,003)
E.	UAAL at End of Year Before Plan Amendments and	
	Changes in Actuarial Assumption (C + D6)	\$1,369,499
F.	Change in Actuarial Accrued Liability Due to Plan Amendments	0
G.	Change in Actuarial Accrued Liability Due to Changes in Actuarial Assumptions	0
Н.	UAAL at End of Year (E + F + G)	\$1,369,499

# **Determination of Contribution Sufficiency**

Table 5

(Dollars in Thousands)

July 1, 1995

A. Statutory Contributions - Chapter 354	Percent of Payroll	Dollar Amount
<ol> <li>Employee Contributions</li> <li>Employer Contributions</li> <li>Total</li> </ol> B. Required Contributions - Chapter 356	6.51% 8.15% 14.66%	\$151,332 189,462 \$340,794
<ol> <li>Normal Cost         <ul> <li>a. Retirement Benefits</li> <li>b. Disability Benefits</li> <li>c. Survivors</li> <li>d. Deferred Retirement Benefits</li> <li>e. Refunds Due to Death or Withdrawal</li> <li>f. Total</li> </ul> </li> </ol>	8.32% 0.62% 0.11% 0.39% 1.15% 10.59%	\$193,350 14,325 2,641 9,126 26,841 \$246,283
<ol> <li>Supplemental Contribution Amortization by July 1, 2020 of UAAL</li> <li>Allowance for Expenses</li> </ol>	3.55% 0.16%	82,540 3,720
4. Total  C. Contribution Sufficiency (Deficiency) [A3-B4]	0.36%	\$332,543

Note: Projected annual payroll for fiscal year beginning on July 1, 1995 is \$2,325,059.

# **Summary of Actuarial and Unfunded Actuarial Liabilities**

(Dollars	in Thousands	s)				UAL as a % of
Valuation as of June 30	Aggregate Actuarial Liabilities	Valuation Assets	Assets as a % of Actuarial Liabilities	Unfunded Accrued Liabilities (UAL)	Annual Active Member Payroll	Annual Active Member Payroll
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%
1989	6,249,413	4,567,997	73.1%	1,681,416	1,723,122	97.6%
1990	6,611,074	5,131,999	77.6%	1,479,075	1,785,459	82.8%
1991	7,213,720	5,614,924	77.8%	1,598,796	1,874,365	85.3%
1992	7,662,522	6,324,733	82.5%	1,337,789	1,934,014	69.2%
1993	8,266,059	7,045,937	85.2%	1,220,122	2,024,000	60.3%
1994	9,115,266	7,611,935	83.5%	1,503,331	2,104,578	71.4%
1995	9,717,623	8,348,124	85.9%	1,369,499	2,197,262	62.3%

# **Solvency Test**

(	Dollars	in	Thousands)
V	TO CHICH D		I II U U SUII U S J

### **Portion of Actuarial Accrued Liabilities Covered**

Aggregate Accrued Liabilities for:				by	Reported	Assets	
			(3)				
		(2)	Members				
Valuatio	n (1)	Retirees	(Employer				
as of	Member	and	Financed	Valuation			
June 30	<b>Contributions</b>	Beneficiaries	Portion)	Assets	(1)	(2)	(3)
1986	515,553	1,275,542	2,890,478	3,104,264	100%	100%	45.4%
1987	558,562	1,534,789	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%
1989	733,650	1,880,080	3,635,683	4,567,997	100%	100%	53.8%
1990	787,514	2,093,209	3,730,351	5,131,999	100%	100%	60.4%
1991	838,160	2,370,851	4,004,709	5,614,924	100%	100%	60.1%
1992	886,618	2,662,744	4,113,160	6,324,733	100%	100%	67.5%
1993	921,143	3,120,037	4,224,879	7,045,937	100%	100%	71.1%
1994	970,813	3,559,614	4,584,839	7,611,935	100%	100%	67.2%
1995	1,070,347	3,866,694	4,780,582	8,348,124	100%	100%	71.4%

# **Schedule of Active Member Valuation Data**

Year Ended June 30	Active Members	Annual Payroll	Annual Average	% Increase in Average Pay
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%
1989	64,796	1,723,121,553	26,593	5.6%
1990	64,324	1,785,459,190	27,757	4.4%
1991	65,093	1,874,364,682	28,795	3.7%
1992	65,557	1,934,014,000	29,501	2.5%
1993	65,268	2,024,000,000	31,017	5.0%
1994	66,514	2,104,578,000	31,641	2.1%
1995	67,558	2,197,262,000	32,524	2.8%

## **Schedule of Retirants and Beneficiaries**

Year Ended June 30	Added During Year	Removed During Year	Number End of Year	Total Annual Benefits	% Increase in Total Annual Benefits	Average Annual Benefits
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
1989	994	501	16,385	160,849,985	8.5%	9,817
1990	1,262	511	17,136	179,792,053	11.8%	10,492
1991	1,499	541	18,094	200,415,271	11.5%	11,076
1992	1,630	512	19,212	227,066,655	16.7%	11,819
1993	2,166	568	20,810	256,630,249	13.0%	12,332
1994	1,886	559	22,137	309,036,770	20.2%	13,960
1995	1,632	601	23,168	338,857,152	9.6%	14,626

# Statistical Section



# **Summary of Changes in Membership 1994-95**

### **Active and Inactive Members**

	A	ctive	Ina	ctive
	Basic	Coordinated	<b>Basic</b>	Coordinated
Total June 30, 1994	162	66,352	122	20,779
Additions	1	6,771	3	4,273
Deletions				
Service retirement	(54)	(1,097)	(20)	(207)
Death	(2)	(57)	_	(50)
Refunds	_	(570)	(2)	(912)
Writeoffs		_	_	(1,169)
Terminated (no refund)	(1)	(3,947)	_	_
Returns to active	_	_	(1)	(1,300)
Other	_	_	(2)	_
<b>Total June 30, 1995</b>	106	67,452	100	21,414

	Basic	Coordinated	
	System	System	Total
Active	106	67,452	67,558
Inactive	100	21,414	21,514
Total	206	88,866	89,072

# **Summary of Changes in Membership 1994-95** (Continued)

### **Annuitants - TRA Fund**

		<b>Basic</b>		Coordinated			
	Men	Women	<b>Total</b>	Men	Women	Total	
Total annuitants June 30, 1994	2,104	3,252	5,356	6,682	8,505	15,187	
Members retired during year	30	46	76	659	638	1,297	
Adjustments	_		_				
Annuities terminated by law	_		_	(3)	_	(3)	
Annuities cancelled	(1)	(1)	(2)	(2)	(1)	(3)	
Annuitants deceased during year	(45)	(111)	(156)	(125)	(199)	(324)	
Total annuitants June 30, 1995	2,088	3,186	5,274	7,211	8,943	16,154	
Annuitants not receiving							
warrants June 30, 1995	_	(1)	(1)	(6)	(2)	(8)	
Total active annuitants June 30, 1995	2,088	3,185	5,273	7,205	8,941	16,146	

### Additional Annuitants - TRA Fund

	Su	mer Colle pplement ment Anr	al	Former Variable Annuities		
	Men	Women	Total	Men	Women	Total
Active annuitants June 30, 1994	88	64	152	546	339	885
Members retired during year		_	_	_	_	
Resumed Drawing	_	_	_	_	1	1
Members re-employed or terminated by law	(1)	(3)	(4)	(1)	(2)	(3)
Annuitants deceased during year	(2)	_	(2)	(7)	(3)	(10)
Total annuitants June 30, 1995	85	61	146	538	335	873
Annuitants not receiving						
warrants June 30, 1995			_		_	_
Total active annuitants June 30, 1995	85	61	146	538	335	873

### Beneficiaries of Members Deceased Prior to Retirement

	Joint & Survivor			<b>Basic Survivor</b>		
		Annuities		Annuities		
	Men*	Women*	<b>Total</b>	Men	Women	Total
June 30, 1994	249	82	331	5	74	79
Added during year	34	25	59	_		
Terminated during year	(2)	(3)	(5)		(2)	(2)
Cancellation	_	_	_	_	_	
<b>Total June 30, 1995</b>	281	104	385	5	72	77

<sup>\*</sup> Gender of member

Disabilitants						
	E	Basic Systei	m	Coordinated System		
	Men	Women	<b>Total</b>	Men	Women	Total
June 30, 1994	18	10	28	150	167	317
Added during year	_	_	_	37	48	85
Resumed benefits	_	_	_	_	_	_
Died during year	_	(1)	(1)	(11)	(9)	(20)
Transferred to retirement	(3)	(3)	(6)	(7)	(5)	(12)
Resumed employment	_	_	_	_(3)	<u>(9)</u>	(12)
Total Active Disabilitants June 30, 1995	<u>15</u>	6	<u>21</u>	<u>166</u>	<u>192</u>	358

### **Beneficiaries of Retired Members**

	Basic System			Coordinated System		
	Men*	Women*	<b>Total</b>	Men*	Women*	Total
June 30, 1994	154	60	214	459	134	593
Added during year	20	5	25	67	23	90
Annuities terminated by law	(7)	(10)	(17)	(20)	(13)	(33)
Deaths	(1)	(1)	(2)	(9)	(1)	(10)
<b>Total June 30, 1995</b>	166	54	220	497	143	640

<sup>\*</sup> Gender of member

### **Distribution of Active Members** As of June 30, 1995

Years of Service									
Age	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	All
< 25	1,490	183							1,673
25-29	2,946	4,102	604						7,652
30-34	954	2,490	3,142	430	1		*		7,017
35-39	1,096	1,643	2,030	2,157	533	1			7,460
40-44	1,168	1,858	1,953	1,590	3,269	937	1		10,776
45-49	908	1,564	1,821	1,425	2,216	4,520	1,601		14,055
50-54	508	688	895	938	1,168	2,070	3,593	531	10,391
55-59	220	332	412	415	617	907	1,640	1,730	6,273
60-64	146	164	116	110	192	329	477	371	1,905
65+	85	64	31	26	24	36	44	46	356
All	9,521	13,088	11,004	7,091	8,020	8,800	7,356	2,678	67,558

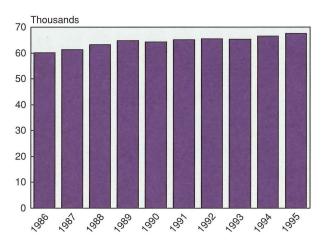
### **Average Annual Earnings of Active Members** for Fiscal Year Ended June 30, 1995

Years of Service									
Age	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30+	All
< 25	15,565	24,079							16,496
25-29	13,821	24,270	28,454						20,577
30-34	12,248	22,484	30,330	34,355	27,524				25,334
35-39	12,111	22,374	30,602	35,684	39,558	28,911			28,182
40-44	11,472	20,433	31,007	36,668	41,238	43,239	33,241		32,069
45-49	11,674	18,947	31,204	36,208	41,511	44,415	45,654		36,605
50-54	10,086	18,038	28,736	34,939	41,841	46,247	47,170	47,875	39,989
55-59	8,614	14,251	25,094	31,887	40,141	45,876	48,185	49,396	41,615
60-64	9,021	9,313	22,821	29,938	39,316	47,074	48,787	49,789	38,616
65+	4,796	4,419	22,399	29,054	41,449	45,117	53,020	52,788	26,743
All	12,773	21,643	30,115	35,495	41,158	44,972	47,204	49,207	32,457

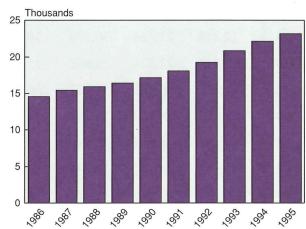
# **Ten Year Summary of Membership**

Year Ended June 30	Active Members	Inactive Members	Benefit Recipients
1986	60,149	14,967	14,560
1987	61,283	15,032	15,459
1988	63,326	15,188	15,892
1989	64,796	16,092	16,385
1990	64,324	17,311	17,136
1991	65,093	18,273	18,094
1992	65,557	19,242	19,212
1993	65,268	20,309	20,810
1994	66,514	20,901	22,137
1995	67,558	21,514	23,168

### **Active Members** in Thousands



### **Benefit Recipients** in Thousands



## **Schedule of Participating Employers**

#### Independent School Districts

Ada #521 Adrian #511 Aitkin #1 Albany #745 Albert Lea #241 Alden #242 Alexandria #206 Annandale #876 Anoka-Hennepin #11 Argyle #437 Ashby #261

Atwater-Cosmos-Grove City #2396

Audubon #21 Austin #492 BDRSH #3001 Badger #676 Bagley #162 Balaton #411 Barnesville #146 Barnum #91 Battle Lake #542 Beardsley #57 Becker #726

Belgrade-Brooten-Elrosa #2364

Belle Plaine #716 Bellingham #371 Bemidji #31 Benson #777 Bertha-Hewitt #786 Big Lake #727

Bird Island-Olivia-Lake Lillian #2534

Blackduck #32 Blooming Prairie #756 Bloomington #271 Blue Earth #2148 Borup #522 Braham #314 Brainerd #181 Brandon #207 Breckenridge #846 Brewster #513 Brooklyn Center #286 Browerville #787 Browns Valley #801 Brownton #421 Buffalo #877

Buffalo Lake-Hector #2159

Burnsville #191 Butterfield #836 Byron #531 Caledonia #299 Cambridge-Isanti #911 Campbell-Tintah #852

Canby #891 Cannon Falls #252 Carlton #93

Cass Lake #115 Cedar Mountain #2754 Centennial #12 Ceylon #451 Chaska #112 Chatfield #227 Chisago Lakes #2144 Chisholm #695

Chokio-Alberta #771 Clearbrook-Gonvick #2311

Cleveland #391 Climax #592 Clinton-Graceville #55 Cloquet #94 Cold Spring #750

Columbia Heights #13 Comfrey #81 Cook County #166 Cromwell #95 Crookston #593 Crosby-Ironton #182

Cyrus #611

Dassel-Cokato #466 Dawson #378 Deer River #317 Delano #879

Delavan #218 Detroit Lakes #22

Dilworth-Glyndon-Felton #2164 Dover-Eyota #533

Duluth #709 Eagle Valley #2759 East Central #2580 East Grand Forks #595 Eden Prairie #272 Eden Valley #463 Edgerton #581 Edina #273 Elgin-Millville #806 Elk River #728 Ellsworth #514 Elmore #219 Ely #696 Emmons #243 Esko #99 Evansville #208 Eveleth-Gilbert #2154 Fairmont #454 Faribault #656 Farmington #192 Fergus Falls #544 Fertile-Beltrami #599

Fillmore Central #2198 Fisher #600 Floodwood #698 Foley #51 Forest Lake #831 Fosston #601

Frazee #23 Fridley #14 Fulda #505

Gibbon-Fairfax-Winthrop #2365

Glencoe #422 Glenville #245 Goodhue #253 Goodridge #561

Granada-Huntley-E. Chain #2536

Grand Meadow #495 Grand Rapids #318

Greenbush-Middle River #2683

Greenway #316

Grey Eagle-Long Prairie #2753

Grygla #447 Hancock #768 Hastings #200 Hawley #150 Hayfield #203 Hendricks #402 Henning #545 Herman-Norcross #264 Hermantown #700

Heron Lake-Okabena #330

Hibbing #701 Hill City #2

Hills-Beaver Creek #671 Hinckley-Finlayson #2165 Holdingford #738

Hopkins #270 Houston #294 Howard Lake #880 Hutchinson #423 International Falls #361 Inver Grove Heights #199 Isle #473

Ivanhoe #403 Jackson #324

Janesville-Waldorf-Pemberton #2835

Jordan #717

Karlstad-Strandquist #2358 Kasson-Mantorville #204

Kelliher #36

Kenyon-Wanamingo #2172 Kerkhoven-Murdock-Sunburg #775

Kimball #739 Kingsland #2137 Kittson Central #2171 La Crescent-Hokah #300 Lake Benton #404 Lake City #813

Lake Crystal-Wellcome Memorial #2071

Lake of the Woods #390 Lake Park #24 Lake Superior #381 Lakefield #325 Lakeview #2167 Lakeville #194

Lancaster #356 Lanesboro #229 Laporte #306 Le Center #392 Le Roy #499 Lester Prairie #424 Le Sueur-Henderson #2397 Lewiston #857 Litchfield #465 Little Falls #482 Littlefork-Big Falls #362 Luverne #2184 Lyle #497 Lynd #415 MACCRAY #2180 Mabel-Canton #238 Madelia #837 Mahnomen #432 Mahtomedi #832 Mankato #77 Maple Lake #881 Maple River #2135 Marshall #413 Martin Co. W #2448 McGregor #4 Medford #763 Melrose #740 Menahga #821 Mentor #604 Mesabi East #2711 Milaca #912 Milroy # 635 Minneota #414 Minnetonka #276 Minnewaska #2149 Montevideo #129 Montgomery #394 Monticello #882 Moorhead #152 Moose Lake #97 Mora #332 Morris #769 Mounds View #621 Mountain Iron-Buhl #712

Lamberton #633

NRHEG #2168 Nashwauk-Keewatin #319 Nett Lake #707 Nevis #308 New London-Spicer #345 New Prague #721 New Ulm #88 New York Mills #553 Newfolden #441 Nicollet #507 Norman Cty East #2215

Mountain Lake #173

Murray County #2169

Norman Cty West #2527 North Branch #138

North St. Paul-Maplewood #622

Northfield #659 Norwood #108 Ogilvie #333 Oklee #627 Onamia #480 Orono #278 Ortonville #62 Osakis #213 Osseo #279 Owatonna #761 Park Rapids #309 Parkers Prairie #547 Paynesville #741 Pelican Rapids #548 Pequot Lakes #186 Perham #549

Pierz #484 Pillager #116 Pine City #578 Pine Island #255 Pine Point #3333 Pine River-Backus #2174 Pipestone-Jasper #2689 Plainview #810

Princeton #477 Prinsburg #815 Prior Lake #719 Proctor #704 Randolph #195 Red Lake #38 Red Lake Falls #630 Red Wing #256 Redwood Falls #2758 Remer #118 Richfield #280

Plummer #628

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-Peterson #239

Russell #418 Ruthton #584

St. Anthony-New Brighton #282

St. Charles #858 St. Clair #75 St. Cloud #742 St. Francis #15 St. James #840

St. Louis County #2142 St. Louis Park #283 St. Michael-Albertville #885

St. Peter #508 Sanborn #638 Sartell #748 Sauk Centre #743 Sauk Rapids #47 Sebeka #820 Shakopee #720 Sibley East #2310 Silver Lake #425 Sioux Valley #328 Sleepy Eve #84 So. Koochiching #363 So. St. Paul #6

So. Washington County #833

Southland #500 Spring Grove #297 Spring Lake Park #16 Springfield #85 Staples-Motley #2170 Stephen #443 Stewart #426 Stewartville #534 Stillwater #834 Storden-Jeffers #178 Swanville #486 Thief River Falls #564 Tracy #417

Triton #2125 Truman #458 Tyler #409 Ulen-Hitterdal #914 Underwood #550 United South Central #2134

Upsala #487 Verndale #818 Virginia #706 Wabasha-Kellogg #811 Wabasso #640

Waconia #110 Wadena-Deer Creek #2155 Walker-Akeley #113 Walnut Grove #641

Warren-Alvarado-Oslo #2176

Warroad #690 Waseca #829

Watertown-Mayer #111

Waterville-Elysian-Morristown #2143

Waubun #435 Wayzata #284

West Central Area #2342

West St. Paul-Mendota Heights-Eagan #197

Westbrook #175 Westonka #277 Wheaton #803 White Bear Lake #624 Willmar #347 Willow River #577 Windom #177 Win-E-Mac #2609 Winona #861 Winsted #427 Worthington #518 Wrenshall #100 Yellow Medicine East #2190 Zumbrota-Mazeppa #2805

#### Joint Powers Units

Area Special Ed Coop #96-4 Bemidji Regional Interdist. Council #96-1 Benton-Stearns Ed. Dist. #96-19 Border Region Ed. Dist. #94-9462 Carver-Scott Ed. Coop. #94-9455 Central Minnesota ERDC #94-940 Central Minnesota ECSU #96-25 East Range Secondary Tech Ctr. #94-9433 Educational Cooperative Unit #5 #96-16 Fergus Falls Area Special Ed. Coop. #96-7 Freshwater Ed. Dist. #94-9432 Goodhue Co. Ed. Dist. #96-27 Hiawatha Valley Ed. Dist. #94-9459 Lac qui Parle Valley #94-9458 Lake Agassiz Special Ed. Coop. #96-21 Meeker & Wright Special Ed. Coop #96-9 Metro Education Coop. Unit #96-11 Midstate Ed. Dist. #94-9413 Midwest Special Ed. Coop. #96-23 MN River Valley Special Ed. Coop. #96-24 MN Valley Ed. Dist. #96-3 MN Valley Cooperative #94-9408 North Central ECSU #5 #96-16 N. Country Vocational Coop. Ctr. #94-9456 Northeast Ed. Dist. #96-13 Northwest MN ECSU #96-22 Northwest Reg. Interdist. Council #96-17 Pine to Prairie Coop. Center #94-9421 Riverbend Ed. Dist. #94-9409 Root River Ed. Dist. #96-26 Runestone Area Ed. Dist. #94-9401 Southwest/West Central ECSU #94-944 South Central ECSU #96-10 Southeast ECSU #96-15 TIES #95-950 West Central Ed. Dist. #94-9460 West Central Migrant Project #98-2 Lakes Country Services Coop #96-8 Wright Technical Center #94-9414

#### Technical Colleges

Alexandria Technical College #99-1 Anoka-Hennepin Technical College #99-2 Central Lakes College #99-3 Dakota County Technical College #99-4 Lake Superior Technical College #99-5 Hennepin Technical College #99-6 Hutchinson-Willmar Regional Technical College #99-7 Minneapolis Technical College #99-8 Northeast Metro Technical College #99-9 Northwest Technical College #99-10 Pine Technical College #99-11 Range Technical College #99-12 Red Wing-Winona Technical College #99-13 Riverland Technical College #99-14 South Central Technical College #99-15 Southwestern Technical College #99-16 St Cloud Technical College #99-17 St Paul Technical College #99-18

#### State Agencies, Colleges and Universities

Akita Japan State University #90-908 Anoka Metro Regional Treatment Ctr #91-15 Anoka-Ramsey Community College #93-15 Arrowhead Community College #93-21 Austin Community College #93-1 Bemidji State University #90-1 Brainerd Regional

Human Services Center #91-1 Cambridge Community College #93-20 Cambridge Regional

Human Services Center #91-2 Department of Children, Families and Learning #88-37 Duluth Community College Center #93-9323 Faribault Regional Treatment Ctr. #91-5 Faribault Residential Academies #37001 Fergus Falls Community College #93-6 Fergus Falls Regional Treatment Ctr. #91-13 Fond du Lac Tribal and

Community College #93-22 Hibbing Community College #93-7 Higher Education Board #88-60000 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 MN Department of Corrections #92-920 MN State Colleges and Universities #90-900 Moorhead State University #90-3 Moose Lake Regional Treatment Ctr. #91-11 MN Center for Arts Educ. #88-25000 MN Correctional Facility, Red Wing #92-1 MN Correctional Facility, Sauk Center #92-2 MN Correctional Facility, Thistledew #92-14 MN Correctional Facility, Willow River #92-9212

North Hennepin Community College #93-12 Normandale Community College #93-17 Northland Technical 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 Ctr. #91-10 Teachers Retirement Association #88-69000 Vermillion Community College #93-4 Vocational Rehabilitation Dept. #88-210 Willmar Community College #93-9310 Willmar Regional Treatment Ctr. #91-14 Winona State University #90-5 Worthington Community College #93-11

#### Professional Organizations

MN Assoc. of School Administrators #97-2 MN Education Association #97-4 MN Federation of Teachers #97-5

Notes