# Comprehensive Annual Financial Report 

for the fiscal year ended June 30, 2008

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Executive Director

## Content

Introduction
GFOA Certificate of Achievement Award ..... 1
Public Pension Coordinating Council Award ..... 2
Letter of Transmittal .....  3
Board of Trustees and Administrative Staff .....  8
Administrative Organization .....  9
Mission Statement and Our Values ..... 10
Financial Section
Auditor's Report ..... 12
Management Discussion and Analysis ..... 14
Basic Financial Statements
Statement of Plan Net Assets ..... 18
Statement of Changes in Plan Net Assets ..... 19
Notes to the Financial Statements (an integral part of the financial statements) .......... 20
Required Supplemental Information
Required Supplemental Schedule:Funding Progress34
Required Supplemental Schedule:
Employer Contributions and Other Contributing Entities ..... 34
Supporting Schedules
Administrative Expenses ..... 36
Schedule of Investment Management Expenses ..... 37
Schedule of Retainage Payable ..... 37
Schedule of Changes in Plan Net Assets ..... 38
Schedule of Professional Consultant Expenses ..... 40
Investments Section
State Board of Investment Letter ..... 42
Investment Summary ..... 44
Basic Retirement Funds (Active Members) ..... 45
Minnesota Post Retirement Investment Fund (Post Fund) ..... 47
Portfolio Distribution ..... 51
Performance of Asset Pools ..... 51
List of Largest Assets Held ..... 52
Summary of Investments
(Active Member Fund only) ..... 53

## Actuarial Section

Actuary's Certification Letter ..... 56
Summary of Actuarial Assumptions and Methods ..... 58
Valuation Report Highlights ..... 62
Actuary's Commentary ..... 63
Selected Tables from Actuarial Valuation ..... 64
Solvency Test ..... 72
Schedule of Active Member Valuation Data. ..... 72
Schedule of Retirees and Beneficiaries Added To and Removed From Retirement Rolls ..... 73
Statistical Section
Statistical Summary ..... 76
10-Year History of Plan Net Assets ..... 77
10-Year History of Contribution Rates ..... 77
10-Year History of Changes in Plan Net Assets ..... 78
10-Year History of Pension Assets vs. Pension Liabilities ..... 78
10-Year History of Benefit Recipients by Category ..... 80
Schedule of Benefit Amounts Paid ..... 81
10-Year History of Benefits and Refunds by Type ..... 82
Schedule of Benefit Recipients by Current Age ..... 84
Benefit Recipients by Effective Date of Retirement ..... 84
Schedule of New Retirees and Initial Benefit Paid ..... 85
Distribution of TRA Benefits, Mailing Address of Benefit Recipient ..... 86
Schedule of Benefit Recipients by Type ..... 87
Membership Data
(with Average Annual Salary) ..... 88
10-Year Summary of Membership ..... 89
Principal Participating Employers ..... 90
Number of Employer Units ..... 90
Plan Statement
Plan Statement ..... 92

# Certificate of Achievement for Excellence in Financial Reporting 

Presented to

## Minnesota Teachers Retirement Association

For its Comprehensive Annual<br>Financial Report<br>for the Fiscal Year Ended

June 30, 2007
A Certificate of Achievement for Excellence in Financial
Reporting is presented by the Government Finance Officers
Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



President


Public Pension Coordinating Council
Recognition Award for Administration 2008

Presented to

## Minnesota Teachers Retirement Association

In recognition of meeting professional standards for plan administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of
National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS)

National Council on Teacher Retirement (NCTR)


Alan H. Winkle Program Administrator

## Letter of Transmittal

December 31, 2008

Members of the Board of Trustees
Teachers Retirement Association
60 Empire Drive, Suite 400
Saint Paul, MN 55103-4000

Dear Trustee:

We are pleased to present this Comprehensive Annual Financial Report (CAFR) of the Teachers Retirement Association (TRA) for the fiscal year ended June 30, 2008, our 77th year of service.
A system of internal controls is in place to help monitor and safeguard assets, ensure transactions are carried out in accordance with Minnesota statutes, and promote efficient operations. The Minnesota Office of the Legislative Auditor annually conducts a financial and legal compliance audit of the Association. Management believes that the accompanying statements, schedules, and tables are fairly presented. We are solely responsible for the content of this report, including its financial statements, which should be helpful in understanding information about TRA and comparing our operating results with those of other teacher retirement systems.

Readers are encouraged to refer to the Management Discussion and Analysis on pages 14-17 for an overview of additions to and deductions from the TRA Fund and additional financial reporting detail for the fiscal year.

## TRA Profile

Although the TRA Board of Trustees has a broad scope of authority in the operations and management of TRA, the pension fund is also governed by federal laws and state statutes. For financial reporting purposes, TRA is considered a pension trust fund of the State of Minnesota, and TRA financial results are incorporated into the Comprehensive Annual Financial Report of the State of Minnesota.
As of June 30, 2008, TRA had 580 reporting employer units, 76,515 active members and a total of 46,981 retirees, survivors, beneficiaries and disabilitants who were receiving monthly benefits. TRA follows the provisions of statements promulgated by the Governmental Accounting Standards Board (GASB) including GASB Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans. TRA’s Comprehensive Annual Financial Report also complies with Minnesota Statutes, Section 356.20. Transactions are reported on the accrual basis of accounting. Contributions from employers and members are recognized as revenue when earned. Expenses are recorded when corresponding liabilities are incurred, regardless of when payment is made.

We contract for actuarial services from the firm Mercer Consulting of Minneapolis, Minnesota to prepare the annual actuarial valuation report.. The Minnesota Office of the Attorney General provides legal counsel to our Board of Trustees. Most financial transactions, including the disbursements from the pension fund, are processed through the centralized controls of the Minnesota Accounting and Procurement System, under the supervision of the Minnesota Management and Budget and Department of Administration.

## TRA's Economic Condition

All TRA assets are invested under the authority and direction of the State Board of Investment (SBI). TRA invested assets have two main components: the Active Fund (assets of TRA active and inactive members) and the Minnesota Post Retirement Investment Fund (assets for TRA retirees and benefit recipients). The MPRIF (Post Fund) consists of the assets of not only TRA benefit recipients, but also the benefit recipients of the other two major statewide public pension associations: the Minnesota State Retirement System and the Public Employees Retirement Association. A listing of investment managers of TRA pooled investments can be found on page 37.
The SBI has developed strategic asset allocation and other investment policies to represent the long-term funding needs of our members and benefit recipients. The SBI, along with its Investment Advisory Council (IAC), continually reviews its policies to ensure sufficient assets are available to finance promised benefits. The executive directors of the three statewide retirement systems serve on the seventeen-member IAC and represent their members in advising the SBI on investment-related matters.

## Investment Results

During fiscal year 2008, U.S. capital markets experienced one of the most difficult and volatile periods in recent history. The U.S. equity markets returned -12.7 percent for the fiscal year, as measured by the Russell 3000 index. The high price of oil, gasoline and food further pressured consumers along with constrained wages, a weak job market, falling home values and harder access to credit. The credit problems at financial institutions continued while the Federal Reserve began to announce concerns about inflation risks.
The Morgan Stanley Capital International (MSCI) All Country World Index excluding the United States (ACWI ex US), which represents the developed and emerging international markets outside the U.S., returned -6.4 percent for the fiscal year. Following four consecutive years of strong double-digit returns, the international markets suffered from an uncertain global economic outlook and worldwide inflation concerns amid rising oil and food prices.

The U.S. bond market, as measured by the Lehman Brothers Aggregate Bond Index, rose 7.1 percent during the fiscal year. The sub-prime mortgage crisis spilled into the broader financial market, causing a credit crisis and a liquidity freeze. Investors' need for safety drove a flight to quality that drove up Treasury prices and caused Treasury yields to plummet and yields on spread products to widen dramatically.
Within this investment environment, the retirement assets under the SBI's control produced the following results:

- The Basic Retirement Funds (including the TRA Active Fund) for active members returned -4.8 percent during fiscal year 2008. Over the latest ten year period, the fund has experienced an annualized return of 5.8 percent.
- The Minnesota Post Retirement Investment Fund (Post Fund) for retired members returned -5.2 percent for fiscal year 2008. Overall the Post Fund provided a ten year annualized return of 5.6 percent.
- The lifetime post-retirement benefit increase will be 2.50 percent for eligible retirees on January 1,2009 . The increase represents the maximum inflation component payable in the Post Fund's annual adjustment formula. The federal Consumer Price Index for inflation (CPI-W) for fiscal year 2008 was 5.55 percent. As of June 30, 2008, the liabilities of the Post Fund exceed its assets, leaving a deficit of an estimated $\$ 5.86$ billion. Based on legislation passed by the 2008 Minnesota Legislature, the Post Retirement will be abolished as of June 30, 2009 and its assets and liabilities transferred to its participating active member public retirement funds.


## Economic Conditions and Outlook

Minnesota's economy struggled during fiscal year 2008. Payroll employment fell by 4,800 jobs ( 0.2 percent) between July 2007 and July 2008. While U.S. payroll employment also fell, the national decline was less than 0.1 percent. The state's economy was particularly weak during April, May and June with payroll employment dropping by 8,700 . As expected, Minnesota's unemployment rate also increased. The state unemployment rate remained slightly below the
U.S. average, but the June 2008 rate of 5.3 percent was the highest observed in Minnesota (other than the 5.4 percent in May) since August 1992. May's rate of 5.4 percent was the highest since November 1991.

Incomes in Minnesota also grew more slowly than the national average. Minnesota personal income grew by 4.8 percent between the second quarter of calendar year 2007 and the second quarter of calendar 2008, 0.4 percentage points less than the national average. Wages in Minnesota grew by 3.1 percent over that same period, 1 percentage point less than the national average of 4.1 percent.
Neither the U.S. nor the Minnesota economy is expected to grow during fiscal year 2009. The November baseline forecast for fiscal year 2009 from Global Insight, the state's national economic consultant, calls for real gross domestic product (GDP) to decline at a 0.4 percent annual rate in fiscal year 2009. Global Insight's forecast calls for declining real GDP in each quarter of the fiscal year. In their forecast, it is not until the first quarter of fiscal year 2010 that the U.S. economy again begins to grow. While lower energy prices partially offset the adverse effects of cutbacks in consumer spending brought on by loss of consumer confidence and substantial reductions in household wealth due to the extremely weak financial markets and declining home values, the fiscal year 2007-2009 recession is expected to be more severe than either of the last two recessions.
Minnesota's outlook for fiscal year 2009 is, keeping with the state's recent performance, slightly more pessimistic than the national outlook. Payroll employment is expected to decline by 55,000 jobs by the end of the fiscal year, more than double the number of jobs lost during the 2002 fiscal year which spanned the 2001 recession. The largest projected employment declines come in the manufacturing sector where an additional 23,000 jobs are expected to be lost during the fiscal year. The construction sector loses 5,000 jobs over that period and the trade sector 6,000 . Over fiscal year 2009, personal income in Minnesota in expected to grow by less than 0.7 percent, about half of the 1.4 percent growth rate projected for the nation as a whole.

## Legislation

The 2008 Legislature passed landmark legislation reforming the funding foundations of Minnesota public pensions. The legislation authorized dissolution of the Minnesota Post Retirement Investment Fund (Post Fund) should its composite funding ratio fall below certain funding benchmarks. In event of dissolution, assets and liabilities in the Post Fund would be merged with the active member funds which participate in the Post Fund.
Under the legislation, if the Post Fund composite funding ratio fell below 80 percent at the end of a fiscal year (or below 85 percent for two consecutive years), the merger would occur the following June 30 fiscal year end. On June 30, 2008, the composite funding ratio of the Post Fund was determined to be 79.7 percent. As a result, TRA's share of retired teacher assets and liabilities in the Post Fund will be transferred to the TRA Fund on June 30, 2009. On June 30, 2008, TRA assets in the Post Fund were $\$ 10.58$ billion with liabilities at $\$ 13.57$ billion, producing a funding deficit of about $\$ 2.99$ billion. We believe the merger is a positive development that provides greater assurance that promised retiree benefit payments will be paid, while providing a longer period of time to finance both retiree and active member benefits.
The 2008 legislation also required the Legislative Commission on Pensions and Retirement (LCPR) to review issues related to Minnesota teacher benefit adequacy and compare the level of teacher pension benefits in Minnesota and other states. This report is scheduled to be released in early 2009. The legislature also modified certain provisions to provide additional tools for school districts to manage retirements and vacancies. One change was to increase the annual post-retirement earnings limitation for TRA retirees to $\$ 46,000$; another change was to provide a new provision for the employee age 62 or more and their employer to mutually agree prior to retirement on reemployment terms formalized in a "Return to Work Agreement."

## Actuarial Funding Status / Investment Report

On June 30, 2008, TRA had an actuarial accrued liability funded ratio of 81.99 percent, which includes TRA's portion of the aforementioned deficit in the Post Retirement Fund. TRA's contribution rate deficiency was determined as 3.33 percent of covered payroll, and is a higher deficiency than the 1.65 percent reported for fiscal year 2007.
Subsequent to fiscal year end, global investment markets have been experiencing unprecedented adverse events. The events have included an expanded global credit crisis and liquidity constraints in the market. As a result of these events, returns on investments held by TRA through the SBI declined approximately 25 percent from the period July 1, 2008 through November 30, 2008. The SBI invests TRA assets with a long-term horizon. Since the pension promises which TRA has made to its retirees and active members are not all immediately payable, SBI can maintain a longer term investment strategy and weather short-term market fluctuations. The SBI intends to stay with its investment strategy since past evidence is strong that long-term diversified investors can weather up and down cycles and thereby fully participate when the market rebounds and performance improves.
The Minnesota State Legislature annually reviews the actuarial valuation report and funded status of TRA. The legislature has authority to set the contribution rates to ensure that TRA is adequately funded over the long term. Should the investment markets not rebound into positive territory in the near future, investment losses will place additional burden on the already existing contribution deficiency reported on June 30, 2008. The contribution rate deficiency is a funding measure that the TRA Board of Trustees is and will be closely monitoring.

## Major Initiatives

TRA started and is maintaining a set of strategic initiatives that are continually reviewed and prioritized. As a result of the strategic planning process during fiscal year 2008, TRA staff has completed 34 initiatives including the conversion of the former Minneapolis Teachers Retirement Fund Association member data into TRA's Functional Redesign of Strategic Technologies (FROST) system. Other major accomplishments during the year includes implementation of an Electronic Fund Transfer system for employer remittances and an improved member annual statement of account. For fiscal year 2009, the TRA Systems Division is planning to redesign, modify, and reprogram FROST applications in the programming language named .Net.

## Awards and Recognition

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Teachers Retirement Association for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2007. This was the tenth consecutive year that the Association has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

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

TRA was also awarded the Public Pension Coordinating Council's Recognition Award for Administration for 2008. This award recognizes TRA's meeting of professional standards in plan administration in categories such as benefits, actuarial valuations, financial reporting and communications to members.

The preparation of this report is possible only through the combined efforts of our employees, employer units, and professional consultants. It is intended to provide a complete and reliable portrayal of the financial status of the pension fund as a basis for making management decisions and determining responsible stewardship over the assets held in trust for the members of the Association. We have notified employer unit officials and other interested persons about the availability of the report on the TRA web site. Copies will be provided upon request. Our sincere appreciation is extended to all who assisted in and contributed toward the completion of this publication.

Respectfully submitted,


Laurie Fiori Hacking
Executive Director


John Wicklund
Assistant Executive Director
Administration

## Board of Trustees

As of December 1, 2008

President


Curtis D. Hutchens
Elected Member St. Cloud, MN


Mary Broderick Elected Member

Vice President


Martha Lee (Marti) Zins
Elected Member
Minnetonka, MN


Bob Lowe
Minnesota School Boards
Association
Representative


Carol Ackerson
Retiree Representative New Ulm, MN


Leslie Hinz
Representing
Alice Seagren,
Commissioner of Education


Richard Gendreau Elected Member Bemidji, MN


Tom Hanson
Commissioner of Minnesota Management
\& Budget

## Administrative Staff



Laurie Fiori Hacking Executive Director


John Wicklund Assistant Director of
Administration


Karen Williamson Assistant Director of
Operations


Luther Thompson Assistant Director Legal and Legislative Services

## Administrative Organization

As of December 2008


Consulting Services<br>Actuary<br>Mercer Consulting<br>Minneapolis, Minnesota<br>Auditor<br>Office of the Legislative Auditor<br>Saint Paul, Minnesota<br>Investment<br>Minnesota State Board of Investment<br>Saint Paul, Minnesota<br>Legal Counsel<br>Office of the Attorney General<br>Saint Paul, Minnesota<br>Medical Advisor<br>Minnesota Department of Health<br>Minneapolis, Minnesota

## Our Mission and Vision (adopted April 2008)

TRA provides retirement, disability and survivor benefits to Minnesota’s public educators assisting them in achieving future income security.

TRA strives to provide benefits that attract and retain competent teachers who serve communities throughout the state, building a stronger education system.

TRA is committed to safeguarding the financial integrity of the fund and takes pride in providing exceptional, innovative services.

## Vision

To be an outstanding retirement system pursuing benefits and services that exceed members’ expectations.

## 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 technological and human resources in a team environment

Employee Provide ongoing employee development that encourages cooperation and mutual respect, Excellence focuses on common goals and recognizes superior performance.

Teachers Retirement Association of Minnesota A Pension Trust Fund of the State of Minnesota

## Financial

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## Auditor's Report

## Independent Auditor's Report

December 30, 2008

Ms. Laurie Fiori Hacking, Executive Director
Teachers Retirement Association of Minnesota
Members of the Board of Trustees
Teachers Retirement Association of Minnesota

We have audited the accompanying basic financial statements of the Teachers Retirement Association of Minnesota as of and for the year ended June 30, 2008, as listed in 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 auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

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, 2008, and the changes in financial position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

The Teachers Retirement Association has implemented Governmental Accounting Standards Board Statement No. 50 on Pension Disclosures. This statement requires certain pension disclosures as of the most recent actuarial valuation date to be presented as part of the notes to the financial statements rather than as required supplementary information, as presented previously.

In accordance with Government Auditing Standards, we have also issued our report dated December 30, 2008, on our consideration of the Teachers Retirement Association's internal control over financial reporting; on our tests of its compliance with certain provisions of laws,

[^0]Ms. Laurie Fiori Hacking, Executive Director
Members of the Board of Trustees
Page 2
regulations, contracts, and grant agreements; and on other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards and should be considered in assessing the results of our audit.

Management's Discussion and Analysis and the other Required Supplementary Information, as listed in the Table of Contents, are not a required part of the Teachers Retirement Association's basic financial statements, but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Teachers Retirement Association's basic financial statements. The Introductory, Investment, Actuarial, and Statistical sections, as listed in the Table of Contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. The Supporting Schedules in the Financial Section have been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole. The Introductory, Investment, Actuarial, and Statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

## Sumer R. Yow h

James R. Nobles
Legislative Auditor


Cecile M. Ferkul, CPA
Deputy Legislative Auditor

## Management Discussion and Analysis

June 30, 2008

This discussion and analysis of the Teachers Retirement Association (TRA) of Minnesota provides an overview of TRA financial activities for the fiscal year ended June 30, 2008. We encourage you to consider the information presented here in conjunction with the transmittal letter beginning on page 3 and the additional information presented in the financial statements and required supplementary information.

## Financial Highlights

- The Net Assets Held in Trust for Pension Benefits decreased in value by about $\$ 1.83$ billion during fiscal year 2008 for a total of about $\$ 18.11$ billion. Plan contributions and investment income totaled about negative $\$ 0.48$ billion during the fiscal year. Plan benefits and other expenses totaled about $\$ 1.35$ billion during the fiscal year.
- TRA assets are accounted for with two legally separate retirement funds. The TRA Active Fund consists of moneys held in trust for TRA active, inactive and members in deferral status. Retirees of TRA participate in the Minnesota Post Retirement Investment Fund (MPRIF) invested by the Minnesota State Board of Investment (SBI.) The fair value of the TRA Active Fund at June 30, 2008, was about $\$ 7.53$ billion. TRA's fair value of assets in MPRIF was $\$ 10.58$ billion, for a combined total of approximately $\$ 18.11$ billion.
- Investment returns for the TRA Active Fund and the Minnesota Post Retirement Investment Fund for the 2008 fiscal year were negative 4.8 percent and a negative 5.2 percent, respectively resulting in investment losses of about $\$ 926$ million.
- Contributions paid by members and employers during fiscal year 2008 totaled about $\$ 441.2$ million. The fiscal year 2007 total was \$409.1 million.
- Pension benefits paid to retirees and beneficiaries during fiscal year 2008 was $\$ 1.33$ billion. The fiscal year 2007 total was $\$ 1.27$ billion, representing an increase of about $\$ 58$ million during the year.
- Refunds of member contributions plus interest during fiscal year 2008 were $\$ 11.8$ million. The fiscal year 2007 total was $\$ 12.1$ million.
- Administrative expenses of the fund during fiscal year 2008 were $\$ 10.26$ million. The fiscal year 2007 total was $\$ 10.64$ million, representing a decrease of $\$ 374$ thousand during the fiscal year.


## Actuarial Highlights

The Association's funding objective is to meet longterm benefit obligations through the accumulation of contributions and investment income. This funding is structured so that the burden of paying retirement costs is shared equitably by present and future generations of members and taxpayers. As of June 30, 2008 the accrued liability funding ratio for TRA was 81.99 percent, a decrease from the comparable funding ratio of 87.54 percent as of June 30, 2007. The funded ratio decrease for fiscal year 2008 is due to the decline in the fair market value of investments during fiscal year 2008.
TRA's unfunded liability on June 30, 2007 was $\$ 2.68$ billion. The June 30, 2008 unfunded liability increased to $\$ 4.00$ billion, an increase of $\$ 1.32$ billion. The primary force increasing the unfunded liability was the decline in the fair market value of investments during fiscal year 2008. TRA's unfunded liability, by state law, must be extinguished by June 30, 2037. Key actuarial funding ratios can be seen on page 62.

## Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the financial report of TRA. The financial report consists of:

- the basic financial statements, comprised of the Statement of Plan Net Assets and the Statement of Changes in Plan Net Assets;
- the notes to the basic financial statements; and
- required and other supplementary information.

The Statement of Plan Net Assets (page 18) presents information on the assets and liabilities of TRA, with the difference between the two reported as net assets. The net assets of the Association reflect the
resources available to pay benefits to members when due. Over time, increases and decreases in net assets measure whether the Association's financial position is improving or deteriorating. It can be thought of as a snapshot of the financial position of TRA at that specific point in time.
The Statement of Changes in Plan Net Assets (page 19) presents information detailing the changes in net assets that occurred during the current fiscal year. All changes in net assets are reported on an accrual basis. This means that the revenue or expense is recognized as soon as the underlying event giving rise to the change occurs, regardless of when the actual cash is received or paid. Thus, revenues and expenses are reported in this statement for some items that will not result in cash flows until future fiscal periods. For example, contributions due from a school district, even though not yet paid by fiscal year end, will be reflected as revenue. Earned benefits or refund accruals will be reflected as an expense, even though they may not have been paid to the member until after fiscal year end.
The notes to the financial statements (pages 20-33) provide additional information that is essential to a full understanding of the data provided in the financial statements.

The report also contains required supplementary information in addition to the basic financial statements themselves. The Schedule of Funding Progress (page 34) includes historical trend information about the TRA plan from a long-term, ongoing perspective and the progress made in accumulating assets to pay benefits when due. The Schedule of Employer Contributions (page 34) presents historical trend information about the annual required contributions of employers and the actual contributions made by employers.
Other supporting schedules are also presented. The Schedule of TRA Administrative Expenses (page 36) presents the overall cost of administering the Association. The Schedule of Changes in Plan Net Assets, separated by reserve accounts, is presented on pages 38-39. The Schedule of Investment Management Expenses (page 37) provides summary information of professional investment money management expenses, includes TRA's share of the investment management fees of the Minnesota Post Retirement Investment Fund (MPRIF). These
expenses are shown as a reduction of investment income on the Statement of Changes in Plan Net Assets. The Schedule of Professional Consultant Expenses (page 40) further details this category of administrative expense.

## Financial Analysis of the TRA Fund

## Plan Assets

Total plan assets of the TRA Fund as of June 30, 2008, were $\$ 19.98$ billion and were mostly comprised of cash, investments and contributions due from employers. Total plan net assets decreased $\$ 3.14$ billion (13.6 percent) from the June 30, 2007, total of $\$ 23.12$ billion. The primary reason for the decrease was the negative investment performance during fiscal year 2008.

## Plan Liabilities

Total liabilities as of June 30, 2008, were $\$ 1.87$ billion, a decrease of 41.2 percent from the June 30,2007 , liability amount of $\$ 3.18$ billion. The primary reason for the decrease was a lower value of liabilities within the securities lending program. In both years, the liability amounts were mostly comprised of obligations under security lending arrangements and long-term bonds payable for the building co-owned by the Association.

## Net Assets

Association assets exceeded liabilities on June 30, 2008, by $\$ 18.11$ billion. The amount is lower than the June 30,2007 , amount of $\$ 19.94$ billion by $\$ 1.83$ billion. The decrease in the fair value of investments is primarily attributable to the generally unfavorable market conditions experienced during fiscal year 2008, as evidenced by investment returns of approximately negative 5 percent. As a mature public pension plan, TRA relies heavily on investment earnings to help pay benefits and expenses since annual employee and employer contributions are currently less than one-third of the amount needed to fund current cash outflows. As result of its annual expenses, the TRA Fund requires strong investment performance each year to achieve an equilibrium or experience an increase in its level of net assets.

| Plan Net Assets |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dollar Amounts in Thousands |  |  |  |  |  |  |
|  | 2008 |  | 2007 |  | Change |  |
| Cash and Investments | \$ | 19,948,249 | \$ | 23,022,442 | \$ | $(3,074,193)$ |
| Receivables |  | 17,587 |  | 86,138 |  | $(68,551)$ |
| Other |  | 10,014 |  | 11,107 |  | $(1,093)$ |
| Total Assets |  | 19,975,850 |  | 23,119,687 |  | $(3,143,837)$ |
| Total Liabilities |  | 1,868,884 |  | 3,180,805 |  | $(1,311,921)$ |
| Plan Net Assets | \$ | 18,106,966 | \$ | 19,938,882 | \$ | $(1,831,916)$ |
| Changes in Plan Net Assets |  |  |  |  |  |  |
| Dollar Amounts in Thousands |  |  |  |  |  |  |
|  |  | 2008 |  | 2007 |  | Change |
| Additions |  |  |  |  |  |  |
| Member Contributions | \$ | 209,592 | \$ | 199,869 | \$ | 9,723 |
| Employer Contributions |  | 231,561 |  | 209,219 |  | 22,342 |
| Net Investment Income/(Loss) |  | $(926,044)$ |  | 3,056,492 |  | $(3,982,536)$ |
| Other |  | 7,530 |  | 7,901 |  | (371) |
| Total Additions | \$ | $(477,361)$ | \$ | 3,473,481 | \$ | $(3,950,842)$ |
| Deductions |  |  |  |  |  |  |
| Monthly Benefits | \$ | 1,330,837 | \$ | 1,273,094 | \$ | 57,743 |
| Refunds of Contributions |  | 11,770 |  | 12,088 |  | (318) |
| Administrative Expenses |  | 10,261 |  | 10,635 |  | (374) |
| Other |  | 1,687 |  | 3,309 |  | $(1,622)$ |
| Total Deductions | \$ | 1,354,555 | \$ | 1,299,126 | \$ | 55,429 |
| Change in Plan Net Assets | \$ | $(1,831,916)$ | \$ | 2,174,355 | \$ | $(4,006,271)$ |

## Revenues - Additions to Plan Net Assets

Total additions to the TRA Fund during fiscal year 2008 were negative $\$ 477$ million, a 113.7 percent decrease from the $\$ 3.47$ billion in fiscal year 2007. Most of the decrease is due to lower investment returns and the decline in the fair market value of investments in 2008 as compared to fiscal year 2007.
Total retirement contributions for fiscal year 2008 increased about $\$ 32.1$ million from the previous fiscal year for a combined fiscal year 2008 total of about $\$ 441.2$ million. Most of the increase can be attributed to an increase in the employer contribution rate on July 1, 2007. Retirement contributions during fiscal year 2008 were calculated at 5.5 percent employee and 5.5 percent employer for Coordinated members of TRA.

A negative net investment return of $\$ 926$ million was recorded for fiscal year 2008. This amount decreased by $\$ 3.99$ billion from fiscal year 2007 when a net investment gain of $\$ 3.06$ billion occurred. The decrease is attributable to lower investment returns for fiscal year 2008. Investment returns for the TRA Active Fund and the Minnesota Post Retirement Investment Fund were negative 4.8 percent and negative 5.2 percent, respectively, for fiscal year 2008. During fiscal year 2007, the comparable investment returns were 18.5 percent (Active Fund) and 18.2 percent (Post Fund).

## Expenses - Deductions From Plan Net Assets

The primary expenses of TRA include the payment of pension benefits to members and beneficiaries, refunds of contributions to former members, and the cost of administering the system. Retirement benefits expenses increased by about $\$ 57.7$ million due to new retirements and a cost-of-living adjustment of 2.50 percent on January 1, 2008 for most TRA benefit recipients. Member refunds of $\$ 11.8$ million decreased by about $\$ 318$ thousand during fiscal year 2008 from the fiscal year 2007 total of $\$ 12.1$ million. Administrative expenses decreased by 3.5 percent during the fiscal year - from $\$ 10.6$ million in fiscal year 2007 to about $\$ 10.2$ million for fiscal year 2008. Overall, fund expenses rose nearly $\$ 55.4$ million during fiscal year 2008.

## Actuarial Highlights

The financial health of a public pension plan is not exclusively assessed by analyzing the Basic Financial Statements. These financial statements should also be reviewed in conjunction with the Schedule of Funding Progress (page 34) and the Schedule of Contributions from the Employer and Other Contributing Entities (page 34) to determine if TRA is becoming stronger or weaker over time.
TRA's funding objective is to meet long-term benefit obligations through the accumulation of contributions and investment income. This funding is structured so that the burden of retirement costs is shared equitably by present and future generations of members and taxpayers. As of June 30, 2008, the accrued liability funding ratio for TRA was 81.99 percent, a decrease for the comparable funding ratio of 87.54 percent as of June 30 , 2007. The funding decline is mostly the result of negative investment returns experienced for fiscal year 2008.
TRA's unfunded actuarial liability on June 30, 2007 was $\$ 2.68$ billion. The June 30,2008 unfunded actuarial liability rose to $\$ 4.00$ billion. Investment performance below the actuarial assumed rate of 8.5 percent was the primary factor increasing the unfunded actuarial liability.
By law, the unfunded liability must be recovered in full by June 30, 2037. TRA's statutory contribution rate of 11.75 percent of member covered payroll is currently trailing the required contribution rate calculated by TRA's actuarial consultant. The
required contribution rate to fund normal pension costs, amortizing the unfunded actuarial liability, plus TRA administrative costs was calculated as 15.08 percent. The resulting contribution deficiency is 3.33 percent of member covered payroll. Employee and employer contribution rates are reviewed and placed into law by the Minnesota legislature.
On June 30, 2009, the Minnesota Post Retirement Investment Fund (Post Fund) - the fund containing the assets and liabilities associated with TRA retired members- will be abolished. The unfunded actuarial liability and contribution rate deficiency presented in this report incorporate TRA's share of the funding deficit of the Post Fund as of June 30, 2008. The reader is encouraged to review Note IV-B on page 31 for additional information about the forthcoming merger and transfer of assets and liabilities to the TRA Fund.

## Summary

Due to the long-term nature of defined benefit plans, one must review the financial performance of TRA over a period of years and not at an isolated point in time. The funding ratio of the TRA Fund decreased from 87.54 percent to 81.99 percent for fiscal year 2008 due to investment performance below actuarial expectations. The increase in unfunded liability and the contribution rate deficiency will be closely monitored. The Board of Trustees will strive to improve the financial position of the Association through achievement of the State Board of Investment's long-term investment objectives and if necessary, seek additional employee and/or employer contribution rates from the Minnesota legislature as deemed necessary.

## Request for Information

The financial report is designed to provide the Board of Trustees, members and other users with financial report with a general overview of the Association's finances and to demonstrate its accountability with the money it holds in trust. If you have any questions about this report, or require additional financial or actuarial information, please contact the Teachers Retirement Association, 60 Empire Drive, Suite 400, Saint Paul, Minnesota 55103 or by telephone toll-free, 800-657-3669.

## Teachers Retirement Fund Statement of Plan Net Assets

As of June 30, 2008
Assets
Cash and short-term investments
Cash.
. $\mathbf{2 , 8 6 9 , 8 1 3}$

Building Account Cash .................................................................. 19,458
Short-term investments ...................................................................... 42,393,568
Total Cash and Short-term Investments ................................. \$ 45,282,839
Receivables
Employer Contributions .................................................................. \$ 15,726,649
Due from the Post Fund .................................................................. 1,744,416
Investment Income........................................................................ 112,311
Bond Interest........................................................................................... 4,143
Total Receivables..................................................................... $\$$ 17,587,519
Investments (at fair value)
Equity in the Post Fund.................................................................. $10,581,899,865$
Fixed Income Pool ........................................................................ 1, 1,757,336,176
Minneapolis Pool .......................................................................... 170,444
Alternative Investments Pool .......................................................... 1,120,123,151
Indexed Equity Pool...................................................................... 1,178,037,608
Domestic Equity Pool ..................................................................... 2,254,826,337
Global Equity Pool............................................................................. 1,160,332,889
Total Investments .................................................................. $\$ 18,052,726,470$
Securities Lending Collateral.................................................................\$ 1,850,239,901
Building
Land............................................................................................. \$ 171,166
Building and Equipment ................................................................ 11,251,337
Reserve for Building Depreciation ............................................ $(1,954,497)$
Deferred Bond Charge ..................................................................... 145,857
Reserve for Deferred Bond Charge Amortization........................ $(35,207)$
Total Building ....................................................................... \$ 9,578,656
Fixed Assets Net of Accumulated Depreciation....................................... \$ 435,004
Total Assets ................................................................................. $19,975,850,389$
Liabilities
Current
Accounts Payable ...........................................................................\$ 8,182,105
Accrued Compensated Absences ..................................................... $\quad$ 72,059
Accrued Expenses - Building......................................................... 34,529
Bonds Payable.............................................................................. 233,200
Bonds Interest Payable.................................................................... 46,271
Retainage Payable .......................................................................... . 425
Securities Lending Collateral.......................................................... 1, 1,850,239,901
Total Current Liabilities....................................................... $\$$ 1,858,808,490
Long Term
Accrued Compensated Absences ......................................................... \$ 670,339
Bonds Payable..............................................................................- 9,405,800
Total Long Term Liabilities .................................................... \$ 10,076,139
Total Liabilities..................................................................... \$ 1,868,884,629
Net Assets Held in Trust for Pension Benefits ................................ \$ 18,106,965,760
(A Schedule of Funding Progress for the plan is presented on page 34.)
The accompanying notes are an integral part of this statement.

## Teachers Retirement Fund Statement of Changes in Plan Net Assets

For the Fiscal Year Ended June 30, 2008
Additions
Contributions
Employee ..... \$ 209,592,461
Employer ..... 209,716,767
Direct Aid (State/City/County) ..... 21,844,555
Earnings Limitation Savings Account (ELSA) ..... 3,554,045
Total Contributions \$ 444,707,828
Investment Income
Net Appreciation in Fair Value of Investments ..... \$ (1,414,385,632)
Interest ..... 130,478,796
Dividends ..... 366,180,688
Less Investment Expenses ..... $(27,491,831)$
Net Investment Income \$ $(945,217,979)$
From Securities Lending Activities
Securities Lending Income ..... \$ 117,616,271
Securities Lending Expenses:
Borrower Rebates(93,566,024)
Management Fees ..... $(4,876,408)$
Total Securities Lending Expenses ..... $(98,442,432)$
Net Income from Securities Lending ..... 19,173,839
Total Net Investment Income \$ $(926,044,140)$
Other Income ..... \$ 3,975,708
Total Additions \$ (477,360,604)
Deductions
Retirement Benefits Paid ..... \$ 1,327,282,903
Earnings Limitation Savings Account (ELSA) ..... 3,554,045
Refunds of Contributions to Members ..... 11,770,086
Administrative Expenses ..... 10,261,139
Interest Paid to the Post Fund ..... 1,687,335
Total Deductions \$ 1,354,555,508
Net Increase (decrease) ..... \$ (1,831,916,112)

## Net Assets Held in Trust for Pension Benefits

Beginning of Year. ..... \$ 19,938,881,872
End of Year \$ 18,106,965,760

The accompanying notes are an integral part of this statement.

## Notes to the Financial Statements

For the Fiscal Year Ended June 30, 2008

## I. Summary of Significant Accounting Policies

## A. Organization

The Teachers Retirement Association (TRA) is an administrator of a multi-employer, costsharing retirement fund. TRA administers a Basic Plan (without Social Security coverage) and a Coordinated Plan (coordinated with Social Security coverage) in accordance with Minnesota Statutes, Chapters 354 and 356. Assets of the fund may be used to pay benefits to both Basic and Coordinated members without legal restriction.

## B. Participating Members and Employers

Teachers employed in Minnesota's public elementary and secondary schools, charter schools, and certain educational institutions maintained by the state (except those teachers employed by the cities of Duluth and St. Paul, and by the University of Minnesota system) are required to be TRA members.

State university, community college, and technical college teachers first employed by the Minnesota State College and Universities (MnSCU) may 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. A teacher employed by MnSCU and electing coverage by DCR is not a member of TRA except for purposes of Social Security coverage.

A schedule of employer units and membership is presented in Figure 1.

## C. Benefit Provisions

TRA provides retirement benefits, as well as disability benefits to members, and benefits to survivors upon the death of eligible members. All benefits vest after three years of eligible service credit. The defined retirement benefits are based on a member's highest average salary for any consecutive 60 months of allowable service, age and years of formula service credit at termination of service. TRA members belong to either the Basic or Coordinated Plan. Coordinated members are covered by Social Security, while Basic members are not. All new TRA members must participate in the Coordinated Plan.

Figure 1

## Employer Units

June 30, 2008
Independent school districts 344
Joint powers units 33
Colleges and universities 39
State agencies 5
Charter schools 157
Professional organizations $\quad 2$ Total Employer Units580

Membership
June 30, 2008
Retirees, disabilitants and beneficiaries receiving benefits 46,981
Terminated employees with deferred vested benefits

12,168
Total $\quad \underline{\underline{59,149}}$

Current employees

| Vested | 61,230 |
| :--- | :--- |
| Non-vested | $\underline{15,285}$ |
| Total | $\underline{\underline{76,515}}$ |

Two methods, or tiers, are used to compute benefits for Coordinated and Basic members who were first hired prior to July 1, 1989. Under Tier I, the annuity accrual rate for Basic members is 2.2 percent of average salary for each of the first 10 years of service and 2.7 percent for each remaining year. For a Coordinated member, the annuity accrual rate is 1.2 percent of average salary for each of the first 10 years of service and 1.7 percent for each remaining year prior to July 1, 2006. Under Tier II, the annuity accrual rate for Coordinated members is 1.7 percent of average salary for each year of service prior to July 1, 2006. All members first hired beginning July 1, 1989 and after are Coordinated members and only eligible for Tier II benefits.

Beginning July 1, 2006, improved formula multipliers for Coordinated members are applicable for years of service provided after June 30, 2006. The formula multiplier increase is 0.2 percent per year ( 1.7 percent to 1.9 percent) for post-June 30, 2006 years of service.

Former Minneapolis Teachers Retirement Fund Association (MTRFA) members with Basic Program eligibility retain the plan provisions of the Basic Program as defined in the MTRFA Articles of Incorporation and Bylaws as they existed at merger. Approximately 60 former MTRFA active members retain Basic Program coverage.

A full annuity is available when age plus years of service equals at least 90 for members whose annuity is calculated under Tier I. For members first hired after June 30, 1989, full retirement annuity benefits are only available upon reaching their normal Social Security retirement age, not to exceed 66 years of age. A reduced retirement annuity is also available to vested members retiring at age 55 or later.

The benefit provisions stated in the preceding paragraphs of this section are current provisions and apply to active plan participants. Vested, terminated members who are entitled to benefits, but are not yet
receiving them, are bound by the provisions in effect at the time they last terminated their public service. Pension benefits are funded from member and employer contributions and income from investment of fund assets.

## D. Reporting Entity

TRA functions as a statutory entity created by the Laws of 1931, Chapter 406. The Association maintains rights to sue or be sued in its own name and to hold property in its own name. For financial reporting purposes, TRA is considered a pension trust fund of the state of Minnesota and is included in the State’s Comprehensive Annual Financial Report with its fiduciary funds.

The State of Minnesota acts as a fiduciary and trustee of TRA's funds. The Board of Trustees has significant independence in the operations and management of the Association, though the State Legislature actually determines the contribution rates for members and employers. The Board of Trustees is responsible for TRA's administration, but the State Board of Investment (SBI) is responsible for investing plan assets.

## E. Basis of Accounting

TRA financial statements for its defined benefit fund are prepared using the accrual basis of accounting. Employee and employer contributions are recognized as revenue in the year in which they are due pursuant to Minnesota Statute. Expenses including benefit payments and refunds are recorded when the liability is due and payable according to Minnesota Statute.

For fiscal year 2008, TRA implemented GASB Statement 50: Pension Disclosures. The statement amends previous guidance on disclosures for defined benefit pension plans and is intended to improve transparency and usefulness of reported information about public pension plans. TRA has complied with Statement 50 by including additional disclosures on the current funding status of the TRA plan within the Notes to the Financial Statements.

## F. Investment Policies and Valuation Methodology

1. Pursuant to Minnesota Statutes, Chapter 11 A , the state's retirement fund assets are commingled in various pooled investment accounts, administered by the State Board of Investment (SBI). As of June 30, 2008, the TRA Fund's share of the Active Member Funds administered by SBI at fair value was approximately 32 percent ( $\$ 7.47$ billion - TRA and $\$ 23.3$ billion - total). The TRA share of the net assets of the Minnesota Post Retirement Investment Fund (Post Fund) at fair values totaled 46.1 percent ( $\$ 10.58$ billion - TRA and $\$ 23$ billion - total). Figure 2 provides specific totals of TRA investments by category.
2. 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 some qualified foreign instruments.
3. Information about the primary government's (State of Minnesota) investments, including credit risk classification, can be obtained from the Department of Minnesota Management \& Budget, 400 Centennial Office Building, 658 Cedar Street, Saint Paul, Minnesota 55155. Information on investment activity, investment management fees and a listing of specific investments owned by the pooled asset accounts can be obtained from SBI, Suite 355, 60 Empire Drive, Saint Paul, Minnesota 55103.
4. Investments in the pooled accounts are reported at fair value. Figure 2 provides a summary of the cost and fair values of the investments as of June 30, 2008, as

Figure 2

| TRA Investment Portfolio June 30, 2008 |  |  |
| :---: | :---: | :---: |
| Basic (Active) Fund | Cost | Fair |
| Pooled Accounts |  |  |
| Fixed Income \$ | \$ 1,887,721,723 | \$ 1,757,336,176 |
| Domestic Equity | 2,663,878,214 | 2,254,826,337 |
| Indexed Equity | 1,179,502,852 | 1,178,037,608 |
| Global Equity | 1,153,587,029 | 1,160,332,889 |
| TRA Minneapolis Equity | ity 86,932 | 170,444 |
| Alternative Investments | ts 1,015,095,734 | 1,120,123,151 |
| Total \$ | \$ 7,899,872,484 | \$ 7,470,826,605 |
| Short-Term Pooled Cash | - 42,393,569 | 42,393,569 |
| Post Fund Account | 13,567,065,379 | 10,581,899,865 |
| Total Invested \$ | \$21,509,331,432 | \$18,095,120,039 |

reported on the Statement of Plan Net Assets. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued using the last reported trade price. The fair value of real estate investments is based on independent yearly appraisals. Investments that do not have an established market are reported at estimated fair value.

The TRA Minneapolis Equity Account was created in 2006 to account for the settlement of investment activity related to the external money managers of the former Minneapolis Teachers Retirement Fund Association (MTRFA). Upon completion of the post-merger investment settlement with the former MTRFA money managers, proceeds will be transferred to other pooled investments in accordance with SBI policies.

Investment income is recognized as earned. Accrued investment income of the pooled investment accounts is included in participation in the accounts. Gains or losses on sales or exchanges are recognized on the transaction date.

Net Investment Income is summarized on the Statement of Changes in Net Plan Assets. The summarized amounts show a net investment loss of \$945,217,979 for fiscal year 2008. Figure 3 shows the various components of these composite amounts, including TRA's share of the Minnesota Post Retirement Investment Fund.

The cost of security transactions is included in the transaction price. Administrative expenses of 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 (see page 37). TRA's share of these expenses totaled are:

| TRA Active Fund | $\$ 11,431,048$ <br> MN Post Retirement Fund <br> Total |
| :--- | ---: |
| $\underline{\$ 27,060,783}$ |  |

> A detailed schedule of fees and commissions by brokerage firm, along with the number of shares traded, total commissions, and commissions per share may be obtained by writing:
> Minnesota State Board of Investment
> 60 Empire Drive, Suite 355
> St. Paul, MN 55103-3555

## G. Securities Lending

Governmental Accounting Standards Board (GASB) Statement 28 Disclosures

TRA does not own specific securities, but instead owns shares in pooled funds invested by SBI that is authorized to use securities lending transactions in accordance with Minnesota Statutes, section 356A.06, subdivision 7, and has, pursuant to a Custodial Trust Agreement, authorized State Street Bank and Trust Company, Boston, Massachusetts, to act as agent in lending securities to brokerdealers and banks.

During the fiscal year, State Street lent, at the direction of the SBI, certain securities held by State Street as custodian and received cash (United States and foreign currency), securities issued or guaranteed by the United States government, sovereign debt of foreign countries, and irrevocable bank letters of credit as collateral. State Street did not have

Figure 3

## Net Investment Income

## Investment Income

Net Appreciation in Fair Value
Net Gain on Sales of Investment Pools
Interest
Dividends
MN Post-Retirement Fund: Distributed Income
Less Investment Expenses.
Net Investment Income/(Loss) $\qquad$ $\$ \quad(945,217,979)$
the ability to pledge or sell collateral securities absent a borrower default. Under Minnesota Statutes, Section 11A.24, borrowers were required to deliver collateral for each loan in amounts at least equal to the market value of the loaned securities.

SBI did not impose any restrictions during the fiscal year on the amount of the loans that State Street made on its behalf. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year. Moreover, there were no losses during the fiscal year resulting from a default of the borrowers or State Street.

During fiscal year 2008, SBI and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested in a separate investment pool. As of June 30, 2008, such investment pool had an average duration of 37 days and an average weighted maturity of 393 days. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral. On June 30, 2008, SBI had no credit risk exposure to borrowers. TRA's portion of the cash collateral held and the fair value of securities on loan from SBI as of June 30, 2008, were \$1,850,239,901 and \$1,789,026,830, respectively. Cash collateral is reported on the Statement of Plan Net Assets as an asset. Liabilities resulting from these securities lending transactions are also reported on the Statement of Plan Net Assets.

## H. Investment Risk

Government Accounting Standards Board (GASB) Statement 40 Disclosures

The Minnesota State Board of Investment (SBI) is responsible for the investing of TRA assets under the authority of Minnesota Statutes, Section 11A.24. The following disclosures apply to TRA investments. Cash deposit disclosures are included in Note M.

Credit risk is the risk that an issuer or counterparty to an investment will be unable to fulfill its obligations. The State Board of

Investment (SBI) has policies designed to minimize credit risk. They may invest funds in governmental obligations provided the issue is backed by the full faith and credit of the issuer or the issue is rated among the top four quality rating categories by a nationally recognized rating agency. They may invest funds in corporate obligations provided the issue is rated among the top four quality categories by a nationally recognized rating agency. They may also invest in unrated corporate obligations or in corporate obligations that are not rated among the top four quality categories provided that:

- The aggregate value of these obligations may not exceed 5 percent of the fund for which the state board is investing;
- Participation is limited to 50 percent of a single offering; and
- Participation is limited to 25 percent of an issuer's obligations.

SBI may also invest in bankers acceptances, deposit notes of U.S. banks, certificates of deposit, mortgage securities, and asset backed securities rated in the top four quality categories by a nationally recognized rating agency. Commercial paper must be rated in the top two categories.

TRA's share of the SBI's exposure to credit risk, based on S \& P Quality Ratings, is as follows:

## Quality Rating

BBB or Better
BB or Lower
Fair Value
(in thousands)
\$4,991,390

Not Rated
125,769

Interest rate risk is the risk that changes in interest rates of debt instruments could adversely affect the fair value of an investment. The State Board of Investment does not have a policy on interest rate risk. TRA's share of the debt securities are held in external investment pools and have the following weighted average maturities:

Security | Weighted Average |
| :--- |
| Maturity (in Years) |

External Cash Equivalent Pools 0.16
Municipal Bonds
U.S. Agencies
Corporate Debt
U.S. Treasuries
Asset-Backed Securities
Mortgage-Backed Securities
Foreign currency risk is the risk that changes
in exchange rates between the U.S. dollar
and foreign currencies could adversely affect
the fair value of an investment. Government
obligations, including guaranteed or
insured issues of the International Bank
for Reconstruction and Development, the
Inter-American Development Bank, the
Asian Development Bank, and the African
Development Bank, must pay interest and
principal in U.S. dollars. The principal
and interest of obligations of corporations,
including those corporations incorporated or organized under the laws of the Dominion of Canada or any province thereof, must also be paid in U.S. dollars. TRA's share of investments as of June 30, 2008, were distributed among the currencies as shown in Figure 4.

## I. 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. The total liability for fiscal year 2008 is $\$ 742,398$. Of this, $\$ 72,059$ is considered a short-term liability and $\$ 670,339$ is shown as a long-term liability on the Statement of Plan Net Assets. The total increased by \$68,608 during fiscal year 2008.

## Figure 4

| Assessment of Currency Risk <br> International Investment Securities at Fair Value |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Currency |  | Cash |  | Debt |  | Equity |
| Australian Dollar |  |  |  |  | \$ | 55,254,841 |
| Brazilian Real |  |  |  |  |  | 14,522,343 |
| Canadian Dollar |  |  |  |  |  | 65,891,811 |
| Danish Krone |  |  |  |  |  | 10,347,363 |
| Euro |  |  |  |  |  | 719,898,069 |
| Hong Kong Dollar |  |  |  |  |  | 48,001,908 |
| Indian Rupee |  |  |  |  |  | 12,770,731 |
| Japanese Yen |  |  |  |  |  | 436,623,429 |
| New Taiwan Dollar |  |  |  |  |  | 15,848,121 |
| Norwegian Krone |  |  |  |  |  | 9,200,160 |
| Pound Sterling |  |  |  |  |  | 428,331,362 |
| Singapore Dollar |  |  |  |  |  | 10,924,259 |
| South African Rand |  |  |  |  |  | 13,192,963 |
| South Korean Won |  |  |  |  |  | 18,812,873 |
| Swedish Krona |  |  |  |  |  | 15,005,531 |
| Swiss Franc |  |  |  |  |  | 66,921,900 |
| Other | \$ | 17,678,152 | \$ | 5,674,020 | \$ | 619,947,535 |
| Total | \$ | 17,678,152 | \$ | 5,674,020 |  | 561,495,199 |

## J. Capital Assets

Capital assets are capitalized at the time of acquisition at cost. Assets with a cost in excess of $\$ 2,000$ are capitalized. Depreciation is computed on a straight-line method over the useful life of the related assets. The estimated useful lives by major category are: computer equipment (3 years), general office equipment (5 years) and modular office furniture (10 years).

Capital assets are presented on the June 30, 2008, Statement of Plan Net Assets. The year-end balance plus changes during the year are:

|  | $\begin{gathered} \text { June } 30 \\ 2008 \end{gathered}$ | $\begin{gathered} \text { June } 30 \\ 2007 \end{gathered}$ | Change |
| :---: | :---: | :---: | :---: |
| Cost Value | \$ 2,309,755 | \$2,600,278 | \$ $(290,523)$ |
| Accumulated |  |  |  |
| Depreciation | 1,874,751 | 1,827,317 | $(47,434)$ |
| Net Capital Asset |  |  |  |
| Value | 435,004 | 772,961 | $(337,957)$ |

## K. Administrative Expenses and Budget

The annual budget of TRA operations is developed by TRA management and approved by the Board of Trustees. The budget is also sent to the The Department of Minnesota Management \& Budget for policy analysis and is included in the Governor's Biennial Budget presentation to the legislature. The legislature adopts appropriation and expenditure limitations resulting in an approved budget for the Association.

TRA administrative costs are not financed through any specific type of contribution or other income of the Fund. Administrative costs are budgeted in the annual determination of the necessary rate for total employee and employer contributions (page 71, line B3).

## L. Retainage

In accordance with Minnesota Statutes, TRA retains 10 percent of professional/technical billings from vendors until successful completion of the contractual obligations. As of June 30, 2008, TRA has a current liability of $\$ 425$ established to represent contractual payments reasonably expected to be paid upon successful completion of the contract. The schedule on page 37 details the retainage held.
M. Cash

Cash on deposit consists of year-end receipts not processed as of the investment cutoff on June 30. TRA cash funds are held in the state treasury where they are commingled with other state funds. Minnesota Statutes, section 9.031, requires that deposits be secured by depository 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 2008, the combined depository insurance and collateral was sufficient to meet legal requirements and secure all TRA deposits.

## N. Accounts Receivable

Amounts classified as accounts receivable consist primarily of member and employer contributions received after the fiscal year end on salaries earned prior to June 30, 2008. Under Minnesota Statutes, section 354.52, subdivision 4, TRA employers must remit contributions within 14 days after the member is paid.

If contributions are not remitted in a timely manner, interest at a rate of 8.5 percent, compounded annually, is assessed. If contributions are not received within 60 days of notification by TRA, the Commissioner of Minnesota Management \& Budget is authorized to deduct the balance due TRA from state aids or appropriations due to that employer unit.

## O. Improved Money Purchase (IMP)

Some TRA members first hired prior to July 1, 1969, are eligible for the Improved Money Purchase (IMP) savings clause of Minnesota Statutes, section 354.55, subdivision 17. Eligibility is limited to those teachers who did not formally elect a specific retirement provision by June 30, 1972. Under the savings clause, eligible members obtain the higher of two benefit provisions: 1) The Defined Benefit Provisions described in Note C, or 2) an IMP annuity based on their accumulated employee contributions plus compounded interest and an employer match of 120 percent.

Beginning with fiscal year 1999, many retiring members discovered that their IMP benefit was higher than the High-Five Average Formula benefit. This phenomenon occurred as strong annual investment returns during the 1990's generated high interest rates compounding on large employee contribution balances accumulated after long teaching careers. The effect becomes less pronounced in periods of low or negative investment performance.

TRA has identified those members who remain eligible for the IMP provision. For these members, the actuarial valuation presented estimates retirement benefit amounts under both the IMP provision and the High-Five average salary formula. The liability presented for that member is the higher of the two methods.

As of June 30, 2008, approximately 300 active and inactive members are eligible for the IMP provision. Assuming IMP eligibility remains limited to the existing, closed group of members, TRA management believes the actuarial impact of the remaining IMP-eligible members will not adversely harm the overall financial integrity of the fund.

## P. Earnings Limitation Savings Account (ELSA)

Prior to January 1, 2008, teachers under age 65 who resume teaching service for a TRAcovered employer after retirement are subject to an annual earnings limitation based on the cost-of-living index used by Social Security. The calendar year 2007 limit was $\$ 12,960$. Effective January 1, 2008, the annual earnings limitation was increased to $\$ 46,000$. If a member earns more than the limitation, the annuity payable during the following calendar year will be offset one dollar for each two dollars earned in excess of the limitation.

The 2000 Legislature modified the way in which the earning limits are handled. Previously, any pension benefits withheld due to excess earnings reverted back to the TRA Fund. Under the new law, the pension offset amounts are redirected to a separate savings account, called the Earnings Limitation Savings Account (ELSA), and later distributed to the retiree. Six percent interest compounded annually accrues on ELSA accounts. A member may apply for a lump-sum payment of their ELSA, plus interest, as long as it has been at least one year after the last deferred amount was redirected to the ELSA account. Alternatively, the retiree may also choose a rollover of their ELSA account balance into an eligible retirement plan or individual retirement account (IRA) as specified by Section 402(c) of the Internal Revenue Code.

As of June 30, 2008, TRA had 1,446 retirees with an ELSA account established. The total dollar value of ELSA accounts totaled $\$ 21.46$ million. The total dollar amount of pension benefits withheld due to excess earnings during fiscal year 2008 was $\$ 3.55$ million. ELSA assets are invested in the TRA Active Fund until distribution. Distributions of ELSA accounts for 84 retirees occurred during fiscal year 2008 and totaled $\$ 960,000$ and are included as a deduction in the Statement of Changes in Plan Net Assets as a component of Refund of Contributions to Members.

## Q. Participating Pension Plan

All 86 employees of the Teachers Retirement Association are covered by the defined benefit plan administered by TRA. All TRA employees participate in the Coordinated Plan. TRA employees are eligible for the plan provisions described in Note 1, C.

Minnesota Statutes Section 354.42 sets the rates for the employee and employer contributions. These statutes are established and amended by the state legislature. During fiscal year 2008, Coordinated members were required to contribute 5.5 percent of their annual covered salary. Employers contributed 5.5 percent of their annual covered salary for Coordinated members. Total covered payroll salaries for all TRA employees during fiscal year 2008 was approximately $\$ 4.9$ million. Total covered payroll salaries for the entire membership of TRA for fiscal year 2008 was approximately $\$ 3.65$ billion.

Employer pension contributions for TRA employees for the years ending June 30, 2008, 2007 and 2006 were $\$ 270,920$, $\$ 246,388$ and $\$ 231,074$, respectively, equal to the required contributions for each year as set by state statute.

## R. Ownership of Office Building

The 1999 Legislature enacted authorization permitting TRA, the Public Employees Retirement Association (PERA), and the Minnesota State Retirement System (MSRS) to purchase land and construct a 130,000 square foot office building to house the administrative offices of these three state entities. Ownership of the facility is prorated based on the amount of square footage each retirement system occupies in the building.

In fiscal year 2008, the Minnesota State Retirement System assumed ownership of previously unleased space, which resulted in TRA's ownership share to change from 40 percent to 37.8 percent. The building is located on 4.3 acres of land at 60 Empire Drive in Saint Paul. TRA has occupied the 4th Floor of the building since September 2001.

In June 2000, the State of Minnesota, under the authority of the Commissioner of Finance, issued 30-year revenue bonds totaling $\$ 29$ million to pay for the construction of the facility. Each owner (retirement system) is responsible for principal and interest payments based on its ownership percentage. These bonds are backed by the assets of the three retirement systems, excluding equity interest in the Minnesota Post-Retirement Investment Fund (MPRIF). At fiscal year end, TRA's share of the bonds payable is $\$ 9,639,000$. The bond payable decreased by $\$ 220,000$ during the year. Interest expected to be paid over the remaining term of the bonds is $\$ 7,816,692$. In Figure 5, TRA's share of the long-term bond repayment schedule including interest is summarized.

Figure 5

| Schedule of Building Debt Service Payments (TRA Share @ 37.8\%) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30, 2008 |  |  |  |  |  |  |
| Fiscal Year |  | Principal |  | Interest |  | al Principal d Interest |
| 2009 | \$ | 226,800 | \$ | 558,847 | \$ | 785,647 |
| 2010 |  | 236,250 |  | 546,657 |  | 782,907 |
| 2011 |  | 255,150 |  | 533,958 |  | 789,108 |
| 2012 |  | 264,600 |  | 520,180 |  | 784,780 |
| 2013 |  | 283,500 |  | 505,759 |  | 789,259 |
| 2014 |  | 292,950 |  | 490,167 |  | 783,117 |
| 2015 |  | 311,850 |  | 473,908 |  | 785,758 |
| 2016 |  | 330,750 |  | 456,444 |  | 787,194 |
| 2017 |  | 349,650 |  | 437,757 |  | 787,407 |
| 2018 |  | 368,550 |  | 417,827 |  | 786,377 |
| 2019 |  | 396,900 |  | 396,635 |  | 793,535 |
| 2020 |  | 415,800 |  | 373,814 |  | 789,614 |
| 2021 |  | 444,150 |  | 349,697 |  | 793,847 |
| 2022 |  | 472,500 |  | 323,603 |  | 796,103 |
| 2023 |  | 500,850 |  | 295,844 |  | 796,694 |
| 2024 |  | 529,200 |  | 266,419 |  | 795,619 |
| 2025 |  | 567,000 |  | 235,329 |  | 802,329 |
| 2026 |  | 595,350 |  | 202,017 |  | 797,367 |
| 2027 |  | 633,150 |  | 167,041 |  | 800,191 |
| 2028 |  | 680,400 |  | 129,843 |  | 810,243 |
| 2029 |  | 718,200 |  | 89,019 |  | 807,219 |
| 2030 |  | 765,450 |  | 45,927 |  | 811,377 |
|  |  | 9,639,000 |  | 7,816,692 |  | 7,455,692 |

TRA's share of bond issuance costs are shown on the Statement of Plan Net Assets as Deferred Bond Charges and will be amortized over the 30-year life of the bonds.

TRA is depreciating its share of the facility over 40 years. The depreciation schedule, shown in Figure 6, summarizes the asset valuation of the office building.

Figure 6
Office Building and Equipment
Depreciation Schedule
(TRA Share at 37.8\%)
June 30, 2008
$\left.\begin{array}{lcc}\text { Historical Cost } & \$ & 11,251,337 \\ \text { FY 2008 Depreciation Amount }\end{array}\right)$

## S. Operating Lease

As a condition of the MTRFA merger on June 30, 2006, TRA is committed to the lease of office space in Minneapolis through January 31, 2009.

For accounting purposes, this lease is classified as an operating lease. Lease expenditures for fiscal year 2008 totaled $\$ 49,169$. Minimum rental payments are required as follows.

## Minimum Rental Payments

| Fiscal Year |  |  |
| :---: | :---: | :---: |
| Ended June 30 | Amount |  |
| 2009 | $\$$ | 32,000 |
| Total | $\$$ | 32,000 |

## II. Contributions Required and Made

Minnesota Statutes, Chapter 354 sets the rates (page 71) for employee and employer contributions. 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 using the entry age normal actuarial funding method. TRA also uses the level percentage of payroll method to amortize the fund's unfunded liability over a closed period ending June 30, 2037.

Contributions totaling \$441,153,783
(\$209,592,461 employee and \$231,561,322 employer) were made in accordance with the actuarially determined contribution requirements. On page 71, statutory contributions are projected as insufficient to meet the required contributions. The deficiency as a percent of covered payroll is 3.33 percent. This translates into a contribution deficiency of about $\$ 127.8$ million projected for fiscal year 2009. The Minnesota Legislative Commission on Pensions and Retirement annually reviews the adequacy of TRA's statutory contributions.

## III. Reserve Accounts

## A. Minnesota Post Retirement Investment Fund (Post Fund)

For all retiring members, the reserves required to pay the cost of their annuity are transferred to the MPRIF where the funds are invested along with funds from retired members of the other statewide retirement systems. Annual adjustments in annuities are calculated in accordance with Minnesota Statutes Section 11A.18, subd. 9. The adjustment formula consists of both an inflation component and an investment component.

The MPRIF is a legally required reserve account under Minnesota Statutes Section 11A.18. TRA's share of the MPRIF investments is shown at fair value. Participation in the MPRIF is determined by the actuarially required reserve level in accordance with Minnesota Statutes Section 11A.18, subd. 7. It includes a 6 percent
assumed income distribution and any mortality gains or losses incurred during the year. As of June 30, 2008, TRA's share of the required reserves (liabilities) of the MPRIF was $\$ 13.57$ billion. TRA's share of the fair value of MPRIF on June 30, 2008 was $\$ 10.58$ billion.

Annuitants and other individuals receiving benefits as of July 1, 2007, are eligible to receive the full January 1, 2009, benefit increase of 2.5 percent.

Benefit recipients whose effective date of retirement is after July 1, 2007, but before June 2, 2008, receive a prorated amount of the January 1, 2009 benefit increase.

The Post Fund will be abolished on June 30, 2009. Note IV, B provides additional explanation.

## B. Member Reserves

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 Post Fund 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 benefit.

Amounts from ELSA Accounts (Note 1, P) are considered as a member reserve since these funds are reserved to specific retirees participating in ELSA.

## C. Benefit Reserves

Employer contributions and investment income are recorded in the Benefit Reserve Designation. Administrative expenses, survivor and disability benefits, investment management fees, and interest paid to the Post Fund for late required reserve transfers are paid from the benefit reserve.

## IV. Subsequent Events

## A. Level Formula Actuarial Reduction Table Correction

In 2008, TRA management and its actuarial consultant discovered that the actuarial reduction tables used for retirement prior to member's normal retirement age under the level benefit formula were incorrect. The tables had been supplied by TRA's previous actuary in 2000. The effect of the error was that retirement benefits paid under the level benefit formula were lower than authorized for those members who had retired since July 1, 2000. Since the error with the reduction factors only affected the level formula benefit calculation, most retirees whose benefits were paid based on the step formula were unaffected by this error.

During fiscal year 2009, TRA began processing benefit adjustments for those retired members affected by the error. TRA management estimates that retroactive retirement benefits paid to the estimated 2,900 retired members affected by the error will total approximately $\$ 2.7$ million during fiscal year 2009. This total represents the sum of retirement benefits that should have been paid over the 8 -year period in which the error had not been detected. During fiscal year 2009 and in accordance with Minn. Stat. Sec. 11A.18, subd. 6, TRA estimates that it will transfer about $\$ 11.4$ million of required reserves and interest to the Minnesota Post Retirement Investment Fund (Post Retirement Fund) to reflect payment of the retroactive and higher future retirement benefits due the retirees affected. During the period while the error was undetected, assets in the TRA Fund were overstated by the amount of the higher required reserves that should have been transferred to the Post Retirement Fund for the higher benefits that should have been paid. Since TRA assets reported on the Statement of Plan Net Assets consists of both TRA Fund and Post Retirement Fund assets, the error did not affect the total amount of Plan Net Assets reported.

TRA's total retirement benefits paid between July 1, 2000 and June 30, 2008 are summarized on pages 82-83. Due to the minor impact and understatement of retirement benefits paid and reported as Retirement Benefit Expense in the Statement of Changes in Plan Net Assets for each of the eight fiscal years since July 1, 2000, TRA management does not believe prior financial reports are materially misstated and will not perform a prior period adjustment. The TRA Board of Trustees and its legal advisor are evaluating whether legal proceedings against TRA's former actuary should be undertaken.

## B. Forthcoming Merger of the Post Retirement Fund

Minnesota Laws (2008) Chapter 349, Articles 1 and 2 were enacted that provided that if the composite funding ratio of the Minnesota Post Retirement Investment Fund (Post Fund) fell below 80 percent at the end of any fiscal year, the Post Fund would be abolished. On June 30, 2008, the Post Fund funding ratio was calculated to be 79.7 percent. On June 30, 2009, assets and liabilities attributable to former TRA members in the Post Fund will be transferred to the TRA Fund.

Beginning January 1, 2009, no new TRA retirees will have required reserves transferred to the Post Fund upon their retirement. On June 30, 2009, TRA will receive the fair value of the assets of the Post Fund attributable to its members and the actuarially determined accrued liability of TRA's retired members currently being paid by the Post Fund. On June 30, 2008, TRA assets in the Post Retirement Fund had a fair value of about $\$ 10.58$ billion and the actuarially determined liability amount was about $\$ 13.57$ billion, resulting in a deficit of $\$ 2.99$ billion. We can not readily estimate TRA's unfunded liability in the Post Retirement Fund that will be transferred to the TRA Fund on June 30, 2009.

With the new legislation, future postretirement annual increases will be modified. Beginning with the January 1, 2010 increase, TRA benefit recipients will receive a fixed 2.5 percent increase. The 2.5 percent increase is fixed, regardless of the underlying investment performance or inflation calculation for a particular fiscal year.

The actuarial valuation results presented in this report incorporates the actuarially accrued liability for TRA retired members currently present in the Post Fund. The Determination of Contribution Deficiency on page 71, Line $\mathrm{B}(2)(\mathrm{a})$ presents the effect of amortizing TRA's portion of the retiree unfunded liability in the Post Retirement Fund as of June 30, 2008. This presentation is required under the Standards of Actuarial Work, established by the State of Minnesota Legislative Commission on Pensions and Retirement.

## V. Funded Status: TRA Plan

## A. Results of Most Recent Valuation

The funded status of the TRA plan as of July 1, 2008, the most recent actuarial valuation date is as follows:
(Dollars in thousands)
Actuarial Accrued Liabilities (AAL) \$22,230,841
Actuarial Value of Assets \$18,226,985
Unfunded Actuarial
Accrued Liability (UAAL) \$4,003,856
Ratio of Assets to AAL 81.99\%
Active Member Payroll
\$3,645,230
UAAL as a Percentage
of Active Member Payroll
109.84\%

An actuarial valuation of a pension plan involves estimates of the value of reported amounts and assumption $s$ about the probability of occurrence of events far into the future. Examples include assumptions about future employment, levels of pay, and mortality. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past assumptions and new estimates are made about the future.

## B. Description of Schedule of Funding Progress (Page 34)

The funding percentage of the actuarial accrued liability funded ratio is a measure intended to help users assess the plan's funding status using a multi-year trend analysis to gauge progress being made in accumulating sufficient assets to pay benefits when due.

The laws governing TRA require that actuarial liabilities be amortized over a fixed amortization date of June 30, 2037. If actual financial experiences are less favorable than assumed financial experiences, the difference will be added to the unfunded actuarial accrued liability.
In an inflationary economy, the value of the dollar is decreasing. This environment results in employee pay increasing in dollar amount, with a corresponding increase in unfunded actuarial accrued liabilities. Reviewing the dollar amounts of unfunded liabilities in isolation can be misleading. Unfunded actuarial accrued liabilities divided by active employee covered salaries (covered payroll) provide an index that adjusts for the effects of inflation. A stronger system will have a smaller ratio of unfunded actuarial accrued liabilities to active member payroll. Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

Prior to July 1, 2004, TRA was considered actuarially fully funded. Since then, TRA has had a percentage of funding less than 100 percent for the past four fiscal years.
During the past four fiscal years, TRA's funding percentage has declined, primarily due to the following three reasons:

1. Fiscal Year 2006: The merger of unfunded liabilities of the former Minneapolis Teachers Retirement Fund Association (MTRFA) into TRA;
2. Fiscal Year 2007: Actuarial assumption change of defining Post Retirement Fund assets at fair value, rather than cost; and
3. Fiscal Year 2008: Negative actuarial experience due to lower investment earnings than assumed.
C. Description of the Schedule of Contributions from Employers and Other Contributing Entities (Page 34)
The amount of required employer contributions and actual percentage contributed are presented in the schedule. Employer contribution rates for TRA are set by Minnesota Statute. Minnesota Statute also specifies direct contribution amounts contributed by the State of Minnesota, the City of Minneapolis and the Minneapolis School District.

## D. Actuarial Assumptions and Methods

## Actuarial Cost Method

The entry age normal actuarial cost method in the actuarial valuation to determine benefit liabilities and normal cost. Differences between assumed and actual experience (actuarial gains and losses) become part of the unfunded actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized over a closed period ending June 30, 2037.

## Asset Valuation Method

For actuarial purposes, assets related to active members are valued utilizing a method which recognizes market value smoothed over a five-year period. Assets relating to TRA's share of the Minnesota Post Retirement Investment Fund are set by Minnesota actuarial standards to be accounted at fair value at the valuation date.

## Significant Actuarial Assumptions

Assumptions used by the actuary for funding purpose are set by Minnesota Statute. They include:

- Inflation Rate - 4.5 percent
- Investment Return - An investment return of 8.5 percent compounded annually for all members, retirees, and beneficiaries was assumed.
- Salary Scale: The active member payroll was assumed to increase 4.5 percent annually. Individual salary increases were based on select and ultimate rates by age, with ultimate rates of 4.5 percent - 5.5 percent.
- Benefit Payments: Benefit increases are set by a formula in Minnesota Statute, based on an inflation and an investment component. The maximum annual increase in law as of June 30, 2008 was 5.0 percent.


## E. Projection of Benefits

Projections of benefits for financial reporting purposes are based on the plan provisions contained in Minnesota Statutes. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in the actuarial value of assets for the TRA Active Fund. Minnesota Statutes and the Standards for Actuarial Work promulgated by the Legislative Commission on Pensions and Retirement require the use of fair value for TRA's share of the assets of the Minnesota Post Retirement Investment Fund.

## Required Supplementary Information

## Schedule of Funding Progress (Unaudited)

Dollar Amounts in Thousands

| Actuarial Valuation Date | Actuarial Value of Assets (A) | Actuarial Accrued Liability (AAL) (B) | $\begin{gathered} \text { Unfunded } \\ \text { AAL } \\ \text { (UAAL) } \\ (\mathrm{B}-\mathrm{A}) \end{gathered}$ |  | Actual Covered Payroll (Previous FY) (C) | UAAL as Percentage of Covered Payroll (B - A) / (C) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07/01/99 | \$14,011,247 | \$13,259,569 | \$ $(751,678)$ | 105.67\% | \$2,625,254 | -28.63\% |
| 07/01/00 | \$15,573,151 | \$14,802,441 | \$ (770,710) | 105.21\% | \$2,704,575 | -28.50\% |
| 07/01/01 | \$16,834,024 | \$15,903,984 | \$ $(930,040)$ | 105.85\% | \$2,812,000 | -33.07\% |
| 07/01/02 | \$17,378,994 | \$16,503,099 | \$ $(875,895)$ | 105.31\% | \$2,873,771 | -30.48\% |
| 07/01/03 | \$17,384,179 | \$16,856,379 | \$ $(527,800)$ | 103.13\% | \$2,952,887 | -17.87\% |
| 07/01/04 | \$17,519,909 | \$17,518,784 | \$ $(1,125)$ | 100.01\% | \$3,032,483 | -0.04\% |
| 07/01/05 | \$17,752,917 | \$18,021,410 | \$ 268,493 | 98.51\% | \$3,121,571 | 8.60\% |
| 07/01/06 | \$19,035,612 | \$20,679,111 | \$1,643,499 | 92.05\% | \$3,430,645 | 47.91\% |
| 07/01/07 | \$18,794,389 | \$21,470,315 | \$2,675,926 | 87.54\% | \$3,532,159 | 75.76\% |
| 07/01/08 | \$18,226,985 | \$22,230,841 | \$4,003,856 | 81.99\% | \$3,645,230 | 109.84\% |

Schedule of Contributions From the Employer and Other Contributing Entities (Unaudited)

Dollar Amounts in Thousands

| Year <br> Ended <br> June 30 | $($ ARC <br> Annual <br> Required <br> Contribution | Actual <br> Employer <br> Contribution | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
| 2000 | $\$ 87,406$ | $\$ 134,419$ | $153.79 \%$ |
| 2001 | $\$ 77,635$ | $\$ 139,799$ | $180.07 \%$ |
| 2002 | $\$ 73,260$ | $\$ 142,222$ | $194.13 \%$ |
| 2003 | $\$ 67,957$ | $\$ 149,481$ | $219.96 \%$ |
| 2004 | $\$ 94,679$ | $\$ 151,029$ | $159.52 \%$ |
| 2005 | $\$ 103,103$ | $\$ 157,693$ | $152.95 \%$ |
| 2006 | $\$ 133,389$ | $\$ 200,286$ | $150.15 \%$ |
| 2007 | $\$ 229,642$ | $\$ 209,219$ | $91.11 \%$ |
| 2008 | $\$ 280,327$ | $\$ 231,562$ | $82.60 \%$ |

## Supporting Schedules to Financial Section

## Administrative Expenses

For the Fiscal Year Ended June 30, 2008

## Personal Services

Salaries ..... \$ 4,888,151
Employer Contributions to Teachers Retirement Association ..... 270,920
Employer Contributions to Social Security ..... 351,709
Insurance Contributions ..... 931,004
Employee Training ..... 41,619
Workers' Compensation ..... 2,533
Subtotal ..... \$ 6,485,936
Communication
Duplicating and Printing Expense ..... \$ 78,192
Postage ..... 317,606
Telephone ..... 64,498
Subtotal ..... \$ 460,296
Office Building Maintenance
Lease of Office and Storage Space ..... \$ 88,603
Building and Operating Expenses ..... 444,775
Rental of Office Machines/Furnishings ..... 37,316
Repairs and Maintenance ..... 63,958
Building Depreciation ..... 279,501
Deferred Bond Charge Amortization ..... 5,030
Bond Interest Expense ..... 569,257
Subtotal ..... \$ 1,488,440
Professional Services
Actuarial Services ..... \$ 227,561
Audit Fees ..... 71,501
Computer Support Services ..... 755,461
Legal Fees ..... 16,702
Management Consultant Services ..... 49,451
Medical Services ..... 46,413
Subtotal ..... \$ 1,167,089
Other Operating Expenses
Department Head Expenses ..... 1,497
Depreciation of Office Furniture and Equipment ..... 324,227
Dues and Subscriptions. ..... 11,851
Insurance Expense ..... 4,599
Miscellaneous Administrative Expenses ..... 14,231
State Indirect Costs ..... 67,726
Stationery and Office Supplies ..... 118,084
Travel - Director and Staff ..... 46,045
Travel - Trustees ..... 38,251
Loss on Disposal of Equipment ..... 32,867
Subtotal ..... \$ 659,378
Total Administrative Expenses ..... \$ 10,261,139

## Schedule of Investment Management Expenses

## For the Fiscal Year Ended June 30, 2008

## Investment Pool Managers

Bond Pool Managers ............................................................................. \$ 1,632,904
Equity Pool Managers ............................................................................. 9,311,545
Financial Control Systems..................................................................... 45,374
Investment Board .................................................................................. 373,822
MPRIF Managers .................................................................................. 16,060,783
Pension Consulting................................................................................ 6,576
Richards \& Tierney ................................................................................ $\quad 60,827$
Total Investment Expenses ................................................................................... \$ 27,491,831

## Schedule of Retainage Payable

As of June 30, 2008

| Vendor | Mercer <br> Consultants | Total |  |
| :--- | ---: | ---: | ---: |
| Balance as of 07/01/07 | $\$$ | 0 | $\$$ |
| Retained 07/01/07-06/30/08 | 425 | 0 |  |
| Paid 07/01/07-06/30/08 | 0 |  | 425 |
| Accrued 06/30/08 | 0 |  | 0 |
| Balance as of 06/30/08 | $\$ \quad 425$ | $\$$ | 425 |

## Teachers Retirement Fund Schedule of Changes in Plan Net Assets

## For Fiscal Year Ended June 30, 2008

Member
Additions
Contributions:
Employee Contributions ..... \$ 208,440,827
Employer Contributions ..... 0
Direct Aid (State/City/County) ..... 0
Earnings Limitation Savings Account (ELSA) ..... 3,554,045
Total Contributions ..... 211,994,872
Investment Income:
Net Appreciation in FMV of Investments ..... 0
Interest ..... 0
Dividends ..... 0
Net Gain on Sales of Pools ..... 0
Distributed Income from Post Fund ..... 0
Investment Management Fees ..... 0
Net Investment Income (Loss) ..... 0
From Securities Lending Activities:
Securities Lending Income ..... 0
Securities Lending Borrower Rebates ..... 0
Securities Lending Management Fees ..... 0
Net Income from Securities Lending. ..... 0
Other Income ..... 0
Total Additions (Subtractions) ..... \$ 211,994,872
Deductions
Benefits Paid ..... \$ 0
Earnings Limitation Savings Account (ELSA) ..... 0
Refunds of Member Contributions ..... 11,424,010
Administrative Expenses ..... 0
Interest Paid Post Fund ..... 0
Total Expenses \$ 11,424,010
Net Increase (Decrease) ..... \$ 200,570,862
Other Changes in Reserves
Annuities Awarded\$ (117,009,314)
Other Transfers ..... $(99,718)$
Change in Assumptions ..... 0
Mortality Loss (Gain) ..... 0
Total Other Changes ..... \$ (117,109,032)
Net Assets Held in Trust for Pension Benefits
Beginning of Year ..... 1,799,909,653
End of Year \$ 1,883,371,483
Note: Reserve amounts rounded to nearest dollar.

Reserves for 2008

| $\begin{array}{c}\text { Post } \\ \text { Fund }\end{array}$ |  | Benefit |
| ---: | ---: | ---: | ---: | ---: |\(\left.\quad \begin{array}{c}Total <br>

June 30, 2008\end{array}\right]\)

## Schedule of Professional Consultant Expenses

For the Fiscal Year Ended June 30, 2008
Investment Pool Managers
Investment Board ..... \$ 373,822
Financial Control Systems ..... 45,374
Pension Consulting ..... 6,576
Richards \& Tierney ..... 60,827
Equity Pool Managers ..... 9,311,545
Bond Pool Managers ..... 1,632,904
MPRIF Managers ..... 16,060,783
Total Investment Pool Managers ..... \$ 27,491,831
MIS Programmers/Analysts
Fishnet Security ..... \$ ..... 74,700
John Carroll ..... 150
Keystone ..... 409,784
Total MIS Programmers/Analysts Expenses ..... \$ 484,634
Actuarial
Buck/Mellon Consultants ..... \$ 175,260
Segal Company (LCPR) ..... 52,301
Total Actuarial Expenses ..... \$ 227,561
Legal
Attorney General ..... \$ 15,010
Paradigm Reporting and Captioning ..... 1,692
Total Legal Expenses ..... \$ 16,702
Audit
Berwyn Group ..... \$ 16,423
Legislative Auditor ..... 54,891
Minnesota Department of Health ..... 187
Total Audit Expenses ..... \$ 71,501
Management Consulting
Andrea Lubov ..... \$ 4,383
CEM Benchmarking ..... 35,000
McLagan Partners ..... 9,255
Minnesota Department of Administration (Management Analysis) ..... 813
Total Management Consulting ..... \$ 49,451
Medical
Medical Evaluations ..... \$ ..... 1,675
Minnesota Department of Health ..... 43,920
Stubbe \& Associates ..... 818
Total Medical Expenses ..... \$ 46,413
Total Consultant Expenses \$ 28,388,093

## Investments

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& \text { Investments } \\
& \text { Investments } \\
& \text { Investments } \\
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## State Board of Investment Letter

MINNESOTA
STATE
BOARD OF
INVESTMENT


Board Members:
Governor
Tim Pawlenty
State Auditor
Rebecca Otto
Secretary of State Mark Ritchie

Attorney General Lori Swanson

## Executive Director:

Howard J. Bicker

60 Empire Drive Suite 355 St. Paul, MN 55103 (651) 296-3328

FAX (65I) 296-9572 E-mail:

## minn.sbi@state.mn.us

 www.sbi.state.mn.usAn Equal Opportunity Employer

December 8, 2008

Fiscal Year 2008 Investment Report: State Board of Investment

## INVESTMENT AUTHORITY

The assets of the Teacher Retirement Association are invested along with the assets of the Public Employees Retirement Association and the Minnesota State Retirement System under the direction and authority of the State Board of Investment in accordance with Minnesota Statutes, Chapters 11A and 356A. The SBI includes Minnesota's governor, auditor, secretary of state and attorney general. The Legislature has established a 17 -member Investment Advisory Council to advise the SBI and its staff on investment-related matters. TRA's executive director is a member of the Council.

## INVESTMENT POLICY

Investment policy stipulates that the SBI will operate within standard investment practices of the prudent person. The SBI will exercise the judgment and care, under prevailing circumstances, which persons of prudence, discretion and intelligence exercise in the management of their own affairs. This work is not for speculation, but for investment, considering the probable safety of their capital, as well as the probable income to be derived from this activity (Minnesota Statutes, section 11 A .09 ). The SBI is authorized to own government obligations, corporate obligations, various short-term obligations, corporate stocks, venture capital interests, mutual funds, resource investments and real estate interests subject to specific boundaries (Minnesota Statutes, Section 11A.24). Particularly, pensionfund assets are to be invested for the exclusive benefit of the fund members (Minnesota Statutes, Section 356.001, subd. 1).

## INVESTMENT OBJECTIVES

Pension-fund assets are managed and accounted for separately in the SBI's Basic Funds and the Post Retirement Investment Fund. The SBI reviews the performance of all the assets in each fund and as two funds combined.

TRA's pension contributions from employees and employers are invested in the SBI's Basic Funds. TRA does not own any underlying assets, but instead owns a share of the asset class pools of the Basic Funds. Since these assets normally accumulate in the Basic Funds for thirty or more years, SBI's objective is to take advantage of the long investment time horizon offered by public and private investments in order to meet its actuarial return target of 8.5 percent annually and ensure that sufficient funds are available to finance promised benefits at the time of retirement.

When a member retires, TRA transfers assets on behalf of the member to the Minnesota Post Retirement Investment Fund (MPRIF). The assets of the MPRIF, which include the eight plans that participate in the Basic Fund and the Legislative and Survivors' Retirement Fund, finance monthly annuity payments paid to retirees.

Monies in the MPRIF are generally invested somewhat more conservatively, but still heavily in equities, to take advantage of the 15 -year to 20 -year time horizon associated with the length of time a typical retiree can he expected to draw benefits. The actuarial return target for the MPRIF is 6 percent.

## COMBINED FUNDS

The combined funds, while not existing under statute, represent the assets of the active and retired public employees who participate in the defined benefit plans of TRA, PERA, and MSRS. The SBI looks at the combined funds for comparison purposes only, since most public pension plans do not separate the assets of their active employees and retirees. The long-term objectives of the combined funds are to:

- Provide returns that are 3 to 5 percentage points greater than inflation over the latest 20-year period,
- Outperform a composite market index weighted in a manner that reflects the actual asset mix of the combined funds over the latest 10 -year period.

As of June 30, 2008, the combined funds returned 6.6 percentage points above the Consumer Price Index over the last 20 years and trailed the Composite Index by 0.1 percentage points over the past ten years and therefore, fell just short of meeting their stated performance goal.

## INVESTMENT PRESENTATION

Data reported in the investment section of this comprehensive annual financial report is presented in conformance with the presentation standards of the Chartered Financial Analysts (CFA) Institute. Investment returns were prepared using a time-weighted rate of return methodology in accordance with those standards.

Respectfully submitted,


Howard Bicker
Executive Director

## Investment Summary

Prepared by TRA management with data obtained from the State Board of Investment's Fiscal Year 2008 Annual Report

The assets of the Minnesota Teachers Retirement Association (TRA) are invested under the direction and authority of the State Board of Investment (SBI). The investment portfolio for the active members of TRA has a fair value of approximately $\$ 7.47$ billion. In addition, TRA's share of the assets of the Minnesota Post Retirement Investment Fund (Post Fund), from which retiree benefits are paid, is approximately $\$ 10.58$ billion, at fair value.

The four-member SBI Board consists of Governor Tim Pawlenty (Chair), Secretary of State Mark Ritchie, Attorney General Lori Swanson, and State Auditor, Rebecca Otto. Howard Bicker serves as SBI's Executive Director.

The Legislature has established a 17-member Investment Advisory Council (IAC) to advise the SBI and its staff on investment-related matters.

- The mission statement of the Investment Advisory Council is: The IAC fulfills its statutory duty to the SBI by providing advice and independent due diligence review of the investment policy and implementation recommendations that guide the SBI's investment of assets.
- SBI appoints ten members experienced in finance and investment. These members traditionally have come from the Minneapolis and Saint Paul corporate investment community.


## Investment Advisory Council

As of December 2008

Michael Troutman, Chair
Strategic Planning and
Development
(Retired)
Board of Pensions Evangelical
Lutheran Church in America
Malcolm W. McDonald, Vice
Chair
Director and Corporate Secretary (Retired)
Space Center, Inc.

## Frank Ahrens, II

Governor's Appointee
Active Employee Representative

## Jeffery Bailey

Director-Benefits Finance
Target Corporation

## David Bergstrom

Executive Director
MN State Retirement System

John E. Bohan
Vice Pres., Pension Investments
(Retired)
Grand Metropolitan-Pillsbury

## Kerry Brick

Manager, Pension Investments
Cargill, Inc.

## Douglas Gorence

Chief Investment Officer
U of M Foundation Investment Advisors

## Laurie Fiori Hacking

Executive Director
Teachers Retirement Association
Tom Hanson
Commissioner
MN Management \& Budget
Heather Johnston
Governor's Appointee
Active Employee Representative

## P. Jay Kiedrowski

Senior Fellow
Humphrey Institute
University of Minnesota
Judith W. Mares
Chief Investment Officer
Alliant Techsystems, Inc.

## Gary R. Norstrem

Treasurer (Retired)
City of Saint Paul
Daralyn Peifer
Vice President and Treasurer
General Mills, Inc.

## Mary Vanek

Executive Director
Public Employees Retirement Association
1 position vacant

Richards \& Tierney, Inc. of Chicago are general consultants to the SBI. Pension Consulting Alliance of Studio City, California, serves as a special project consultant. Investment performance methodology is reported in compliance with the mandatory requirements of the Chartered Financial Analyst (CFA) Institute. All investments made by SBI are governed by the prudent person rule and other standards codified in Minnesota Statutes, Chapters 11A and 356A.

- The Commissioner of Finance and the executive directors of TRA, the Minnesota State Retirement System and the Public Employees Retirement Association are permanent members of the Council.
- Two active employee representatives and one retiree representative are appointed to the Council by the Governor.
- The Council has formed three committees organized around broad investment subjects relevant to SBI's decision-making: Asset Allocation, Stock and Bond Managers and Alternative Investments.
- All proposed investment policies are reviewed by the appropriate Committee and the full Council before they are presented to SBI for action.


## Basic Retirement Funds

## Investment Objectives

The pension contributions of active TRA members are invested through the Basic Retirement Funds (Basic Funds) administered by SBI. 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. All assets in the Basic Retirement Funds, including TRA, are managed externally by outside money management firms retained by contract.
The Basic Funds invest the pension contributions of most Minnesota public employees, including TRA 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 Funds must generate investment returns of at least 8.5 percent on an annualized basis over time.
Normally, pension assets will accumulate in the Basic 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 SBI to take advantage of long run return opportunities offered by common stocks and other investments in order to meet its actuarial return target.

SBI measures the performance of the Basic 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 ten-year period. Investment returns were prepared using a timeweighted rate of return methodology, based upon fair values, net of investment expenses. Performance is measured net of all fees and costs to assure that SBI's focus is on its true net return.

## 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, SBI has focused considerable attention on the selection of an appropriate long-term asset allocation policy for the Basic Funds. It should be noted that the unfunded allocation to alternative investments in the Basic Funds is held in domestic stocks until it is needed for investment. As a result, the actual amount invested in domestic stocks was above its long-term target.

During Fiscal Year 2004, the Board provisionally revised its long term asset allocation targets for the Basic Funds. Upon the Post Retirement Fund achieving its alternative investment target, the Basic Funds’ allocation target may increase from 15 percent to 20 percent by decreasing the fixed income target from 24 percent to 19 percent. Additionally, the Basic Funds will invest in yield-oriented investments as part of its allocation to alternative investments.

| Basic Funds Asset Mix <br> June 30, 2008 |  |  |
| :--- | :---: | :---: |
| Actual Mix | Policy Mix |  |
| Domestic Stocks | $45.9 \%$ | $45.0 \%$ |
| International Stocks | $15.4 \%$ | $15.0 \%$ |
| Bonds | $23.6 \%$ | $24.0 \%$ |
| Alternative Assets | $14.5 \%$ | $15.0 \%$ |
| Unallocated Cash | $\underline{0.6 \%}$ | $\underline{1.0 \%}$ |
| Total | $\underline{\underline{100.0 \%}}$ | $\underline{\underline{100.0 \%}}$ |

## Total Return Vehicles

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 longterm risk-return characteristics of common stocks. Including international stocks in the asset mix allows 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 alternative assets (e.g., venture capital) is similar.
SBI 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

Other asset classes are included in the Basic Funds both to provide some insulation against highly inflationary or 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 Funds serves to dampen return volatility.
Yield oriented alternative investments provide the opportunity for higher long term returns than those typically available from bonds yet still generate sufficient current income. Typically, these investments (e.g., subordinated debt, mezzanine or resource income investments such as producing properties) 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 generate higher returns relative to more traditional bond investments.
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 Funds and thereby control return volatility.

## Rate of Return Results

The Basic Funds produced a total rate of return for fiscal year 2008 of -4.8 percent. Over the last five years, the Basic Funds have generated an annualized return of 10.5 percent. The current fair value of the total Basic Funds is about $\$ 23.3$ billion. TRA's share of the fund is approximately 32 percent or $\$ 7.47$ billion. As stated earlier, the Basic Funds are expected to exceed the return of a composite of market indices over a ten-year period. Performance relative to this standard will measure two effects:

- The ability of the managers selected by SBI, in aggregate, to add value to the returns available from the broad capital markets.
- The impact of SBI's rebalancing activity. (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 between asset classes on a total fund basis.)
For the ten-year period ending June 30, 2008, the Basic Funds slightly underperformed the composite index by 0.1 percentage point annualized. The Fund matched the composite index over the last five years, and underperformed the index over the most recent fiscal year by 0.9 percentage point. Actual returns relative to the total fund composite index over the last five years are shown in the graph on the previous page.


## Post Retirement Fund

When a member retires, TRA transfers assets on behalf of the member to the Minnesota Post Retirement Investment Fund (Post Fund). The Post Fund includes the assets of retired public employees covered by nine statewide retirement plans: the eight plans which participate in the Basic Funds as well as the Legislative and Survivors Retirement Fund.
The assets of the Post Fund finance monthly annuity payments paid to retirees. On June 30, 2008, the Post Fund had a market value of about $\$ 23$ billion. TRA retirees' portion of this value is approximately $\$ 10.58$ billion or 46 percent. The Post Fund produced an investment return of -5.2 percent for fiscal year 2008.

All assets in the Post Retirement Fund are managed externally by outside money management firms retained by contract.

## 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 SBI to take advantage of the long-run return opportunities offered by common stock in order to meet its actuarial return target as well as to finance retirement benefit increases.

| Post Fund Asset Mix June 30, 2008 |  |  |
| :---: | :---: | :---: |
|  | Actual Mix | Policy Mix |
| Domestic Stocks | 46.7\% | 45.0\% |
| International Stocks | 15.5 | 15.0 |
| Bonds | 25.0 | 25.0 |
| Alternative Assets | 11.3 | 12.0 |
| Unallocated Cash | 1.5 | 3.0 |
| Total | 100.0\% | 100.0\% |

SBI measures the performance of the Post 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 ten-year period. Investment returns were prepared using a timeweighted rate of return methodology, based upon fair values, net of investment expenses. Performance is measured net of all fees and costs to assure that SBI's focus is on true net return.

## Asset Allocation

The current long-term asset allocation policy and actual asset mix of the Post Fund at the end of fiscal year 2008 is presented in the above table. The asset allocation policy is under constant review. During Fiscal Year 2004, the SBI revised its long term asset allocation targets for the Post Fund. The allocation target for alternative investments was increased from 5 percent to 12 percent, while decreasing domestic equity from 50 percent to 45 percent and decreasing fixed income from 27 percent to 25 percent. Additionally, the Post Fund will invest in private equity, real estate, and resource investments as well as yield-oriented investments as part of its allocation to alternative investments. Finally, unvested portions of alternative investments will be invested in domestic equities instead of bonds.
The majority of the Post Fund's assets are invested 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 SBI to diversify its holdings across world markets and offers the opportunity to enhance returns and reduce the risk/volatility of the total portfolio.
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 asset allocation is under constant review.
The Board 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. Including private equity in the Post Fund is intended to enhance returns and reduce the risk of the total portfolio.
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 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 Post Fund also serves to dampen 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 normal financial conditions, bonds diversify the Post Fund, thereby controlling return volatility on a year-to-year basis.
Yield oriented alternative investments 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., subordinated debt, mezzanine or resource income investments such as producing properties) 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 generate higher returns relative to more traditional bond investments.

## Investment Management and Performance

In order to gain greater operating efficiency, the Post Fund shares with the Basic Funds 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 ten-year period. The Post Fund's performance slightly trailed its composite market index by 0.1 percentage point for the most recent ten year period since July 1 , 1998. The fund matched the composite index for the most recent five year period. For fiscal year 2008, the fund trailed the composite index by 1.2 percentage points.

Actual returns relative to the total fund composite index over the last five years are shown in the graph to the left.

The Basic Funds and the Post Fund 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 SBI to gain greater operating efficiency within asset classes and to keep money management costs as low as possible for all participants. Investment management fees are summarized on the schedule on page 37. Further information on investment activity, management fees and commissions paid, and a listing of specific investments owned by the pooled accounts can be obtained from the Minnesota State Board of Investment, Suite 355, 60 Empire Drive, Saint Paul, MN 55103.

## Benefit Increase Formula

The retirement benefit annual increase formula of the Post Fund is based on a combination of two components as specified in Minnesota Statute:

- Inflation Component. Each year, retirees receive an inflation-based adjustment equal to 100 percent of inflation, up to a maximum of 2.5 percent specified in statute. The inflation component is granted regardless of investment performance. The cap is necessary to maintain the actuarial soundness of the entire plan. It is the difference between the return assumption for the Basic funds ( 8.5 percent), and the return assumption for the Post Fund ( 6.0 percent).

Recent Post Retirement Benefit Increases
Rounded to the nearest tenth of one percent


- Investment Component. Each year, retirees also receive an investment-based adjustment, provided net investment gains are above the amount needed to finance the Post Fund's 6.0 percent actuarial assumption and the inflation adjustment described previously. Investment gains and losses are spread over five years to smooth out the volatility of returns. In addition, all accumulated investment losses must be recovered before an investmentbased adjustment is granted.
The Post Fund will provide a benefit increase of 2.50 percent for fiscal year 2008 payable January 1, 2009. As noted earlier, this increase is comprised of two components:
- Inflation component of 2.50 percent. The increase is the maximum inflation component allowable under Minnesota statute. The actual Consumer Price Index for wage earners (CPI-W) for the twelve months ending June 30 , 2008, was 5.55 percent. (CPI-W is the same inflation index used to calculate increases in Social Security payments.)
- Investment component of 0.000 percent. This represents a portion of the market value increase that exceeds the amount needed to cover the actuarial 6.0 percent assumed rate of return and the inflation adjustment.

In 2008, the Minnesota Legislature enacted legislation that provided that if the composite funding ratio of the Minnesota Post Retirement Investment Fund (Post Fund) fell below 80 percent at the end of any fiscal year, the Post Fund would be abolished. On June 30, 2008, the Post Fund funding ratio was calculated to be 79.7 percent.

Under the legislation, the Post Fund would be merged on the following June 30 (June 30, 2009) and assets and liabilities for retired members returning to the retirement fund that originally transferred required reserves to the Post Fund on behalf of that member.

Beginning January 1, 2009, no new TRA retirees will have required reserves transferred to the Post Fund upon their retirement. On June 30, 2009, TRA will receive the fair value of the assets of the Post Fund attributable to its members and its actuarially determined accrued liability. On June 30, 2008, TRA assets in the Post Retirement Fund had a fair value of about $\$ 10.58$ billion with the actuarially determined liability amount of about $\$ 13.57$ billion, or a deficit of $\$ 2.99$ billion.

With the new legislation, future post-retirement annual increases will be modified. Beginning with the January 1, 2010 increase, the amount increased will be a fixed 2.5 percent. The 2.5 percent is fixed, regardless of the underlying investment performance or inflation calculation for a particular fiscal year.
Benefit increases granted for the past ten years are shown in the graph on page 49.

## Teachers Retirement Fund <br> Portfolio Distribution

June 30, 2008

Post Fund
(Retirees)


## Teachers Retirement Fund <br> Performance of Asset Pools (Net of Fees)

June 30, 2008

|  | Rates of Return (Annualized) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FY 2008 | 3-Year | 5-Year | 10-Year |
| Domestic Stock Pool | -13.1\% | 4.3\% | 8.2\% | 2.8\% |
| Domestic Equity Asset Class Target* $\qquad$ <br> (*Reflects Wilshire 5000 as reported prior to FY 2000, the Wilshire 5000 Investable from 7/1/1999 thru $9 / 30 / 03$; and the Russell 3000 since 10/1/2003.) | -12.7\% | 4.7\% | 8.4\% | 3.1\% |
| Bond Pool | 4.3\% | 3.4\% | 3.8\% | 5.6\% |
| Asset Class Target. | 7.1\% | 4.1\% | 3.9\% | 5.7\% |
| International Stock Pool | -6.6\% | 16.0\% | 18.8\% | 7.5\% |
| Asset Class Target ................................................. | -6.4\% | 15.8\% | 19.0\% | 7.3\% |
| Alternative Assets (Real Estate, Private Equity, $\qquad$ <br> Resource Pool and Yield Oriented Pool) | 13.4\% | 27.0\% | 24.9\% | 15.1\% |
| Inflation (No Established Index for Alternative Assets)........... | 5.0\% | 3.7\% | 3.4\% | 2.9\% |

All investment performance methodology is reported in compliance with the mandatory requirements of the Chartered Financial Analysts (CFA) Institute, as described on page 45.

## Teachers Retirement Fund <br> List of Largest Assets Held

June 30, 2008
Composite Holdings of Top Ten Equities
By Fair Value

| Security | \$ Fair Value (Millions) | $\%$ of Portfolio |
| :---: | :---: | :---: |
| Exxon Mobil Corp... | \$256.6 | 1.42\% |
| Microsoft Corp.. | 142.6 | 0.79\% |
| General Electric Co. | 136.8 | 0.76\% |
| UBS Trumbull Property | 124.3 | 0.69\% |
| Prime Property Fund Morgan. | 119.0 | 0.66\% |
| AT\&T Inc. | 117.1 | 0.65\% |
| Conoco Phillips.. | 110.7 | 0.61\% |
| Proctor and Gamble Co. | 110.7 | 0.61\% |
| Chevron.. | 104.5 | 0.58\% |
| Apple, Inc. | 99.0 | 0.55\% |

## Composite Holdings of Top Ten Bond Holdings

By Fair Value

| Security | Coupon | \$ Fair Value (Millions) | $\%$ of Portfolio |
| :---: | :---: | :---: | :---: |
| FNMA TBA Jul 30 Single Family.................. | 5.00\% | \$105.8 | 0.58 |
| FNMA TBA Jul 30 Single Family.................. | 5.50\% | 96.8 | 0.54 |
| Bank of America Tri Party C......................... | 2.30\% | 58.6 | 0.32 |
| United States Treasury Notes ........................ | 6.00\% | 45.9 | 0.25 |
| Fed HM LN PC POOL A79021 ..................... | 5.50\% | 39.4 | 0.22 |
| FEDERAL HOME LOAN BANK.................. | 2.86\% | 35.2 | 0.19 |
| FEDERAL HOME LN MTG DISC NTS ......... | 1.97\% | 35.1 | 0.19 |
| FNMA POOL 888366 ................................. | 7.00\% | 33.7 | 0.19 |
| ING TRIPARTY C ..................................... | 2.60\% | 33.6 | 0.19 |
| FNMA POOL 745515 ................................. | 5.00\% | 31.8 | 0.18 |

TRA's assets are commingled in various pooled investment accounts administered by the State Board of Investment (SBI). TRA does not own specific values of the underlying assets. The percentages and fair value shown are those attributable to the TRA Fund based on TRA's participation in the SBI's Basic Funds and Minnesota Post Retirement Investment Fund. Information on investment activity, a listing of specific investments owned by the pooled accounts and a schedule of fees and commissions can be obtained from SBI.

## Summary of Investments*

As of June 30, 2008

|  |  | Book Value |  | Fair <br> Value | \% of Investments at Fair Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fixed Income Investments |  |  |  |  |  |
| Equity Investments |  |  |  |  |  |
| TRA Minneapolis Pool | \$ | 86,932 | \$ | 170,444 | 0.0\% |
| External Indexed Equity Pool |  | 1,179,502,852 |  | 1,178,037,608 | 15.7\% |
| Global Equity Pool |  | 1,153,587,029 |  | 1,160,332,889 | 15.4\% |
| External Domestic Equity Pool |  | 2,663,878,214 |  | 2,254,826,337 | 30.0\% |
| Total Equity Investments | \$ | 4,997,055,027 | \$ | 4,593,367,278 | 61.1\% |
| Alternative Investments |  |  |  |  |  |
| Alternative Investment Pool | \$ | 1,015,095,734 | \$ | 1,120,123,151 | 14.9\% |
| Short Term Investment |  |  |  |  |  |
| Short Term Cash Equivalents | \$ | 42,393,569 | \$ | 42,393,569 | 0.6\% |
| Total Investments | \$ | 7,942,266,053 | \$ | 7,513,220,174 | 100.0\% |

[^1]
## General Information Regarding Investment of Funds

TRA's investments are made by SBI 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 Basic Funds and the Post Fund. Wells Fargo, Saint Paul, Minnesota, is the current custodian of short term investments of SBI. Examination and verification of securities held by the custodians is performed periodically by the Minnesota Office of the Legislative Auditor.
Investment returns were prepared using a time-weighted rate of return methodology, based upon fair values, net of investment expenses.

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Teachers Retirement Association of Minnesota A Pension Trust Fund of the State of Minnesota

## Actuarial

> Actuarial Actuarial Actuarial Actuarial Actuarial

# Actuary's Certification Letter 

## MERCER

333 South 7th Street, Suite 1600
Minneapolis, MN 55402-2427
6126428600 Fax 6126428686 www.mercer.com
MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN
December 22, 2008
Board of Trustees
Teachers Retirement Association Fund
60 Empire Drive, Suite 400
St. Paul, Minnesota 55103-2088
Members of the Board:
We have prepared and presented to you an actuarial valuation of the Teachers Retirement Association Fund (TRA) as of July 1, 2008 for the plan year ending June 30, 2009. This report reflects the provisions of the Plan effective July 1, 2008. To the best of our knowledge, this actuarial valuation was performed in accordance with the requirements of Minnesota Statutes, Section 356.215 and the requirements of the Standards of Actuarial Work established by the Minnesota Legislative Commission on Pensions and Retirement (LCPR).

As described in the report, the results of the valuation indicate that the fund is $81.99 \%$ funded, and the contribution rates are deficient by $3.33 \%$ of payroll to meet the target of full funding by 2037. The plan provisions, data, and actuarial assumptions and methods used in the valuation are also described in the report.

This report was prepared exclusively for TRA and the LCPR to determine the annual required contribution and present accounting results required under GASB Nos. 25 (as amended by GASB 50 ) and 27 . Mercer is not responsible for consequences arising from the use of any elements of this report for any other than their intended purpose. Determinations for other purposes may be significantly different from the results shown in this report.

A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it is neither a prediction of a pension plan's future financial condition nor a prediction of a pension plan's ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits it pays, the number of people to whom it pays them, and the amount earned on any assets invested to pay the benefits. These amounts and others are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities. To prepare this report, actuarial assumptions, as described within, are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from valuation to valuation based on experience, changes in expectations about the future, and other factors. Evaluating the effect of changes in assumptions is beyond the scope of this assignment.

Consulting. Outsourcing, Investments.

## MERCER

MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN

Page 2
December 22, 2008
Board of Trustees
Teachers Retirement Association Fund

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

Several actuarial assumptions were changed this year. The payroll growth assumption was lowered from $5.0 \%$ to $4.5 \%$ per year. Ultimate salary increase rates were lowered by $0.50 \%$ at all ages. Retirement rates were adjusted slightly.

We used and relied on financial data submitted by TRA without further audit. We have also used and relied on participant data supplied by the Fund; this data would customarily not be verified by the Fund's actuary. We have reviewed the participant data for internal consistency and have no reason to doubt its substantial accuracy. TRA is solely responsible for the validity and completeness of this information.

All costs, liabilities and other factors were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current federal and state statutes and regulations issued thereunder. The economic assumptions are set in Minnesota Statutes, and the remaining assumptions are adopted by the LCPR. We believe that these assumptions are reasonable. This report fully and fairly discloses the actuarial position of the Fund on an ongoing basis.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the internal Revenue Code that may be imposed on the taxpayer.


FSA, EA, MAAA

Bonita of. Wmact
Bonita J. Wurst
ASA, EA, MAAA

# Summary of Actuarial Assumptions and Methods 

(Assumptions adopted by the Legislative Commission on Pensions and Retirement on February 22, 2002 or by statutory modification on May 27, 2008, denoted by asterisk)

## Actuarial Basis

## Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan.

| Investment return | 6.0\% compounded annually post-retirement (MPRIF) <br> $8.5 \%$ compounded annually pre-retirement |
| :--- | :--- |
| Actuarial value of plan <br> assets | MPRIF Reserve: Market Value (Assumption change effective July 1, 2007) <br> Non-MPRIF Assets: The assets are valued based on a five-year moving average <br> of expected and market values (five-year average actuarial value) determined as <br> follows: <br> at the end of each plan year, an average asset value is calculated as the <br> average of the market asset value at the beginning and end of the fiscal year <br> net of investment income for the fiscal year; |
| The investment gain or (loss) is taken as the excess of actual investment <br> income over the expected investment income based on the average asset <br> value as calculated above; |  |
| Funding method actuarial | The investment gain or (loss) so determined is recognized over five years at <br> 20 percent per year; |
| gain/losses | The asset value is the sum of the expected asset value plus the scheduled <br> recognition of investment gains or (losses) during the current and the <br> preceding four plan years. |
| liabilities age normal cost method of valuation is used in determining benefit The Entry Age Normal method is required by |  |
| Minnesota Statutes. Differences between assumed and actual experience |  |
| (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded |  |
| actuarial accrued liabilities are amortized to produce payments (principal and |  |
| interest), which are level percents of covered payroll. |  |


| Mortality Pre-retirement | 1983 Group Annuity Mortality for males set back 12 years 1983 Group Annuity Mortality for females set back 10 years |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Post-retirement | 1983 Group Annuity Mortality for males set back 6 years 1983 Group Annuity Mortality for females set back 3 years |  |  |  |
| Post-Disability | 1965 Railroad Retirement Board (RRB) rates through age 54. For ages 55 to 64, graded rates between 1965 RRB and the Healthy Post-retirement mortality table. For ages 65 and later, the Healthy Post-retirement mortality table. |  |  |  |
| Disability | Age-related rates based on experience; see table of sample rates. |  |  |  |
| Withdrawal | Select and ultimate rates based on actual plan experience. Ultimate rates after the third year are shown in the rate table. Select rates are as follows: |  |  |  |
|  |  | First Year | Second Year | Third Year |
|  | Male | 45\% | 12\% | 6\% |
|  | Female | 40\% | 10\% | 8\% |
| Expenses | Prior year administrative expenses expressed as percentage of prior year payroll. |  |  |  |
| Retirement age | Graded rates beginning at age 55 as shown in rate table. Members who have attained the highest assumed retirement age will retire in one year. |  |  |  |
| Percentage married | $85 \%$ of male members and $65 \%$ of female members are assumed to be married. Members are assumed to have no children. |  |  |  |
| Age difference | Females three years younger than males. |  |  |  |
| Allowance for Combined Service Annuity | Liabilities for active members are increased by $1.40 \%$ and liabilities for former members are increased by $4.00 \%$ to account for the effect of some participants having eligibility for a Combined Service Annuity. |  |  |  |
| Refund of contributions | All employees withdrawing after becoming eligible for a deferred benefit are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit. |  |  |  |
| Interest on member contributions | Members and former members who are eligible for the money purchase annuity are assumed to receive interest credits equal to the Pre-Retirement interest rate. All other members and former members receive the interest crediting rate as specified in statutes. |  |  |  |
| Form of payment | Married members are assumed to elect subsidized joint and survivor form of annuity as follows: |  |  |  |
|  | Males: | $15 \%$ elect $50 \% \mathrm{~J} \& \mathrm{~S}$ option $25 \%$ elect $75 \% \mathrm{~J} \& S$ option |  |  |
|  | Females: | $20 \%$ elect $50 \%$ J\&S option $10 \%$ elect $75 \% \mathrm{~J} \& S$ option $30 \%$ elect $100 \%$ J\&S option |  |  |


| Unknown data for members | We used membership data as supplied by the plan sponsor as of July 1, 2008. Customarily, this information would not be verified by a plan's actuary. We have reviewed the information for internal consistency and we have no reason to doubt its substantial accuracy. In cases where submitted data was missing or incomplete, the following assumptions were applied: <br> Data for active members missing a date of birth: <br> Date of birth <br> July 1, 1964 <br> Data for terminated members: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Changes in actuarial assumptions since the previous valuation | The following changes in assumptions were recognized as of July 1, 2008*: <br> - Ultimate salary increase rates were lowered by $0.50 \%$ at all ages. <br> - Payroll growth assumption was reduced from $5.0 \%$ to $4.5 \%$. <br> - Coordinated retirement rates were changed at the following ages: <br> Eligible for Rule of 90 <br> Not Eligible for Rule of 90 |  |  |  |  |
|  | Age | Old Rate | New Rate* | Old Rate | New Rate* |
|  | 55 \& Under | N/A | N/A | 9\% | 7\% |
|  | 56 | 50\% | 60\% | 9\% | 7\% |
|  | 57 | 50\% | 55\% | 9\% | 7\% |
|  | 58 | N/A | N/A | 9\% | 8\% |
|  | 59 | N/A | N/A | 12\% | 10\% |
|  | 61 | N/A | N/A | 20\% | 18\% |
|  | 65 | N/A | N/A | 50\% | 45\% |

Summary of Rates: Shown below for selected ages:

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pre-Re Mo | ement <br> ality | With | rawal |  | ility | Retir | ment |  |
| Age | Male | Female | Male | Female | Male | Female | Rule of 90 Eligible | Other | Salary* <br> Increases |
| 20 | 0.03 | 0.01 | 3.70 | 4.50 | 0.00 | 0.00 | 0.00 | 0.00 | 5.50\% |
| 25 | 0.03 | 0.01 | 3.20 | 4.50 | 0.00 | 0.00 | 0.00 | 0.00 | 5.50 |
| 30 | 0.04 | 0.02 | 2.70 | 4.50 | 0.00 | 0.00 | 0.00 | 0.00 | 5.50 |
| 35 | 0.04 | 0.03 | 2.50 | 3.90 | 0.01 | 0.01 | 0.00 | 0.00 | 5.50 |
| 40 | 0.05 | 0.03 | 2.35 | 2.75 | 0.03 | 0.03 | 0.00 | 0.00 | 5.20 |
| 45 | 0.07 | 0.05 | 2.10 | 2.10 | 0.05 | 0.05 | 0.00 | 0.00 | 4.70 |
| 50 | 0.10 | 0.07 | 1.85 | 1.85 | 0.11 | 0.10 | 0.00 | 0.00 | 4.50 |
| 55 | 0.17 | 0.10 | 0.00 | 0.00 | 0.22 | 0.16 | 50.00 | 7.00* | 4.50 |
| 60 | 0.31 | 0.16 | 0.00 | 0.00 | 0.33 | 0.25 | 50.00 | 12.00 | 4.80 |
| 65 | 0.52 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 50.00 | 45.00* | 5.20 |
| 70 | 0.77 | 0.42 | 0.00 | 0.00 | 0.00 | 0.00 | 35.00 | 35.00 | 5.20 |
| 71 | 0.84 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 5.20 |

*Assumption change effective for July 1, 2008 actuarial valuation.

## Valuation Report Highlights

Summary of Key Valuation Results


* July 1, 2007 results provided by Segal Company (TRA's former actuarial consultant)


## Actuary's Commentary

## Highlights

This report has been prepared by Mercer for the
Teachers Retirement Association of Minnesota to:

- Present the results of a valuation of the Teachers Retirement Association Fund as of July 1, 2008.
- Review experience under the Plan for the year ended June 30, 2008.
- Provide reporting and disclosure information for governmental agencies and other interested parties.


## Contributions

The following table summarizes important contribution information as described in the "Development of Costs" section.

|  | Plan Year Ending |  |
| :--- | :---: | :---: |
| June 30 |  |  |
| 2009 |  |  | \(\left.\begin{array}{c}June 30 <br>


2008*\end{array}\right]\)| Contributions | $11.75 \%$ | $11.79 \%$ |
| :--- | :---: | :---: |
| Statutory Contributions - <br> Chapter 354 (\% of payroll) |  |  |
| Required Contributions - <br> Chapter 356 (\% of payroll) | $15.08 \%$ | $13.44 \%$ |
| Sufficiency/ (Deficiency) <br> *Provided by The Segal Company | (3.33\%) | (1.65\%) |

The deficiency shown above means that if all actuarial assumptions turn out to be correct in total, the Fund needs to receive 3.33 percent of pay more in future years than it is currently scheduled to receive. Last year, the deficiency was only half as much. The primary causes of the deficiency are:

- The low returns on assets (see below) for the year just ended, and
- The recognition of the Post Fund deficit in the plan's financial status

Without a change in contribution rates, or favorable actuarial experience, the funded status will continue to deteriorate. In addition, as of the date of this report, the assets have experienced significant losses as a result of the turmoil in the financial marketplace this fall. If not reversed, losses will further increase the deficiency.

On the other hand, we would also note that absent any additional losses, the plan has sufficient assets to pay benefits for many years into the future.

The "Plan Assets" section provides detail on the plan assets used for the valuation including a development of the actuarial value of assets. The actuarial value of assets earned (4.8 percent) for the plan year ending June 30, 2008 as compared to the assumed rate of 8.50 percent. Only 20 percent of the non-MPRIF asset loss is recognized in the actuarial value of assets. The remainder will be recognized over the next four years. The actuarial value of assets earned 1.8 percent for the plan year ending June 30, 2008 as compared to the assumed rate of 8.50 percent.
The integration of the Minneapolis Teachers Retirement Fund Association into this Fund caused this Fund issues in terms of reconciling member demographic data. The Fund believes that no material issues remain, but the results of this valuation may be mildly inconsistent with the prior valuation as a result of the data corrections.

## Effects of Changes

The following changes in assumptions were adopted as of July 1, 2008:

- The ultimate salary increase rates were lowered by 0.50 percent at all ages.
- The payroll growth assumption was reduced from 5.0 percent to 4.5 percent.
- Retirement rates were increased at ages 56 and 57 for Rule of 90 retirements, and reduced at ages 55 to 59,61 and 65 for all other retirements.

These assumption changes had the following impact on the valuation results:

- A $\$ 103$ million decrease in actuarial accrued liability.
- A decrease in the required contribution of 0.28 percent payroll.

The basis for determining benefit increases for benefit recipients was revised since the previous valuation on July 1, 2007. See the Summary of Plan Provisions for detail. This change in plan provisions had no effect on the results of this valuation.

## Reconciliation of Member Data*

|  | Actives | Inactives | Recipients |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Service Retirements | Disability Retirements | Survivors | Total |
| Members on July 1, 2007 | 76,938 | 32,446 | 43,347 | 638 | 3,205 | 156,574 |
| New hires | 4,541 | 0 | 0 | 0 | 0 | 4,541 |
| Return from inactive | 2,251 | $(2,251)$ | 0 | 0 | 0 | 0 |
| Return from zero balance | 515 | 0 | 0 | 0 | 0 | 515 |
| Transfer to inactive | $(4,341)$ | 4,341 | 0 | 0 | 0 | 0 |
| Transfer from non-status | 0 | 157 | 0 | 0 | 0 | 157 |
| Restored writeoff | 0 | 451 | 0 | 0 | 0 | 451 |
| Repay refunds | 0 | 48 | 0 | 0 | 0 | 48 |
| Refunded | (382) | (777) | 0 | 0 | 0 | $(1,159)$ |
| Retirements | $(1,950)$ | (352) | 2,379 | (39) | 0 | 38 |
| Disability began | 0 | 0 | 0 | 68 | 0 | 68 |
| Payment to beneficiary began | 0 | 0 | 0 | 0 | 315 | 315 |
| Deaths | (43) | (42) | (895) | (17) | (104) | $(1,101)$ |
| Adjustments | (356) | 262 | (1) | (6) | 0 | (101) |
| Term completes | 0 | 0 | 0 | 0 | (89) | (89) |
| Net changes | 235 | 1,837 | 1,483 | 6 | 122 | 3,683 |
| Members on June 30, 2008 | 77,173 | 34,283 | 44,830 | 644 | 3,327 | 160,257 |

* Provided by the Teachers Retirement Association and checked for reasonableness. Note that this reconciliation does not tie to the counts in the 2007 valuation report because of the integration of TRA and MTRFA data during the prior fiscal year. Active member count includes certain disabled members. Recipient counts include all pensions in force, including double counting of multiple payee types.


## Statement of Plan Net Assets

Year Ended June 30, 2008
(Dollars in Thousands) Market Value

## Assets in Trust

| Cash, equiva | 45,283 |
| :---: | :---: |
| Fixed income. | 1,757,336 |
| Equity | 5,713,490 |
| Equity in Minnesota Post-Retirement Investment Fund (MPRIF) .... | 10,635,347 |
| Other assets | 1,860,254 |
| assets in trus | \$ 20,011,710 |

Assets receivable

\$

17,588

Total assets ............................................................................................. \$ 20,029,298

Amounts Payable
\$ $(1,868,885)$
Due to Minnesota Post Retirement Fund for Mortality Losses
\$
$(53,447)$

Net Assets
\$ 18,106,966
Net assets held in trust for pension benefits
MPRIF reserves
\$ 10,635,347
Member reserves
1,883,372
Other non-MPRIF reserves
5,588,247
Total assets available for benefits.
\$ 18,106,966

## Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by the Minnesota State Board of Investment, for the Plan's fiscal year July 1, 2007 to June 30, 2008.

Change in Assets (dollars in thousands)

1. Fund balance at market value at July 1,2007
2. Contributions
a. Member
b. Employer
c. Direct aid (state/city/county)
d. Earnings Limitation Savings Account (ELSA)
e. Total contributions
3. Investment income
a. Investment income
b. Investment expenses
c. Net subtotal
4. Other
5. Total income (2.e + 3.c + 4.)
6. Benefits Paid
a. Annuity benefits
b. Refunds
c. Total benefits paid
7. Expenses
a. Interest paid to Post Fund
b. Administrative
c. Total
8. Total disbursements (6.c. + 7.c.)
9. Other changes in reserves
a. Annuities awarded
b. Mortality gain (loss)
c. Change in assumptions
d. Total other changes
10. Fund balance at market value at July 1, 2008 (1. + 5. + 8. + 9.d.)

| Non-MPRIF Assets | MPRIF <br> Reserve |  |  | Market Value |
| :---: | :---: | :---: | :---: | :---: |
| \$ 8,299,347 | \$ | 11,639,535 | \$ | 19,938,882 |
| 209,592 |  | 0 |  | 209,592 |
| 209,717 |  | 0 |  | 209,717 |
| 21,845 |  | 0 |  | 21,845 |
| 3,554 |  | 0 |  | 3,55 |
| \$ 444,708 | \$ | 0 | \$ | 444,708 |

## Actuarial Asset Value

Year Ended June 30, 2008

June 30, 2008

1. Market value of assets available for benefits
\$ 18,106,966
2. Determination of average non-MPRIF balance
a. Non-MPRIF assets available at July 1, 2007 .......................................................... 8 8,299,347
b. Non-MPRIF assets available at July 30, 2008 (before MPRIF mortality adjustment)

7,525,066
c. Net investment income for fiscal year ending June 30, 2008 $(377,424)$
d. Average balance [a. + b. - c.] / 2

8,100,919
3. Expected non-MPRIF return [8.5\% * 2.d.] .................................................................. 688,578
4. Actual non-MPRIF return
5. Current year unrecognized asset return
6. Unrecognized asset recognized asset returns

| a. Year ended June 30, 2008 \$ | $(1,066,002)$ | 80\% | \$ | $(852,802)$ |
| :---: | :---: | :---: | :---: | :---: |
| b. Year ended June 30, 2007 | 725,920 | 60\% |  | 435,552 |
| c. Year ended June 30, 2006 | 653,165 | 40\% |  | 261,266 |
| d. Year ended June 30, 2005 | 179,823 | 20\% |  | 35,965 |
| e. Total unrecognized return |  |  | \$ | $(120,019)$ |
| Actuarial value at June 30, 2008 (1. - 6.e.) |  |  | \$ | 18,226,985 |

## Changes in Unfunded Actuarial Accrued Liability

Year Ended June 30, 2008

|  | Year Ending |
| :--- | :---: |
| (Dollars in Thousands) | June 30, 2008 |

A. Unfunded actuarial accrued liability at beginning of year
\$ 2,675,925
B. Changes due to interest requirements and current rate of funding

1. Normal cost and actual administrative expenses
\$
367,604
2. Contributions
$(444,708)$
3. Interest on A., B. 1 and B.2.
4. Total (B.1. + B.2. + B.3.)
C. Expected unfunded actuarial accrued liability at end of year (A. + B.4.)

2,822,998
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected

1. Salary increases
2. Investment return
3. MPRIF mortality

1,228,867
4. Mortality of other benefit recipients

53,447
5. Other items
6. Total
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions (C. + D.6.)
F. Change in unfunded actuarial accrued liability due to changes in plan provisions
\$ 0
G. Change in unfunded actuarial accrued liability due to changes in actuarial assumptions \$
$(45,753)$

,284,089
H. Unfunded actuarial accrued liability at end of year (E. + F. + G.)
\$ 4,003,856

## Actuarial Valuation Balance Sheet

The actuarial balance sheet is based on the fundamental equation that at any given time the present value of benefits to be paid in the future must be equal to the assets on hand plus the present value of future contributions to be received. The total rate of contribution is determined as that amount which will make the total present and potential assets balance with the total present value of future benefits. The members' rate of contribution is fixed at the current schedule of compensation. The employer's rate of contribution is the balance required to cover the total rate of contribution.

The contributions made in excess of amounts required for current benefit payments are accumulated as a reserve to help meet benefit payments in later years. This reserve system enables the establishment of a level rate of contribution each year.
(Dollars in Thousands)
June 30, 2008
A. Actuarial Value of Assets ....................................................................................................... \$ 18,226,985
B. Expected Future Assets

1. Present value of expected future statutory supplemental contributions*....................... \$ 1,664,260
2. Present value of expected future normal cost contributions .......................................... 2,763,051
3. Total expected future assets (1. + 2.) ........................................................................... \$ 4,427,311
C. Total Current and Expected Future Assets ........................................................................... \$ 22,654,296
D. Current Benefit Obligations

Non-Vested Vested
Total

1. Benefit recipients
a. Service retirements
\$
0
\$ 12,853,171
\$ 12,853,171
b. Disability
0
179,222
179,222
c. Survivors
0
723,307
723,307
2. Deferred retirements with augmentation
0
446,384
446,384
3. Former members without vested rights
0
39,999
39,999
4. Active members
5. Total current benefit obligations
$\begin{array}{r}75,115 \\ \hline \$ 75,115\end{array}$
$\frac{7,001,113}{\$ 21,243,196}$
$7,076,228$
$\$ 21,318,311$
E. Expected Future Benefit Obligations
\$ 3,675,581
F. Total Current and Expected Future Benefit Obligations
\$ 24,993,892
G. Unfunded Current Benefit Obligations (D.5-A)
\$ 3,091,326
H. Unfunded Current and Future Benefit Obligations (F. - C.)
\$ 2,339,596
[^2]
## Determination of Unfunded Actuarial Accrued Liability (UAAL) and Supplemental Contribution Rate

July 1, 2008
(Dollars in Thousands)

| Actuarial |
| :---: |
| Present Value |
| of Projected |
| Benefits |

A. Determination of Actuarial Accrued Liability (AAL)

1. Active Members

| a. Retirement annuities ........................... | \$ | 9,728,239 | \$ | 2,125,848 | \$ | 7,602,391 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| b. Disability benefits .............................. |  | 176,942 |  | 66,962 |  | 109,980 |
| c. Survivor benefits ....... |  | 69,364 |  | 27,281 |  | 42,083 |
| d. Deferred retirements ........................... |  | 664,274 |  | 350,235 |  | 314,039 |
| e. Refunds |  | 112,990 |  | 192,725 |  | $(79,735)$ |
| f. Total | \$ | 10,751,809 | \$ | 2,763,051 | \$ | 7,988,758 |
| 2. Deferred retirements with future augmentation |  | 446,384 |  | 0 |  | 446,384 |
| 3. Former members without vested rights......... |  | 39,999 |  | 0 |  | 39,999 |
| 4. Annuitants in the MPRIF .......................... |  | 13,567,065 |  | 0 |  | 13,567,065 |
| 5. Recipients not in MPRIF........................... |  | 188,635 |  | 0 |  | 188,635 |
| 6. Total.................................................... | \$ | 24,993,892 | \$ | 2,763,051 | \$ | 22,230,841 |

B. Determination of Unfunded Actuarial Accrued Liability (UAAL)

1. Actuarial accrued liability
\$ 22,230,841
2. Actuarial value of assets 18,226,985
3. Unfunded actuarial accrued liability $\qquad$
$\$ \quad 4,003,856$
C. Determination of Supplemental Contribution Rate
4. Present value of future payrolls through the amortization date of June 30, 2037..... \$ 66,250,842
5. Supplemental contribution rate (B.3 / C.1) ......................................................... $6.04 \%$

## Determination of Contribution Sufficiency/ (Deficiency) - Total

(Dollars in Thousands)
A. Statutory Contributions - Chapter 354

1. Employee contributions $\qquad$
2. Employer contributions* $\qquad$ 5.50\%
\$
5.69\%

211,704
3. Supplemental contributions**
a. 1993 Legislation
0.13\%

5,000
b. 1996 Legislation........................................................................ 0.10\%

3,716
c. 1997 Legislation
4. Total $\qquad$

| 0.33\% | 12,954 |  |
| :---: | :---: | :---: |
| 11.75\% | \$ | 452,126 |

B. Required Contributions - Chapter 356

1. Normal Cost
a. Retirement benefits.................................................................... 6.93\% \$ 266,696
b. Disability benefits ..................................................................... 0.20\% 7,513
c. Survivor.................................................................................... 0.08\% 3,044
d. Deferred retirement benefits........................................................ 1.03\% 39,500
e. Refunds.................................................................................... 0.53\% 20,528
f. Total $\qquad$ 8.77\%
\$ 337,281
2. Supplemental contribution amortization by July 1,2037 of Unfunded Actuarial Accrued Liability
a. Due to unfunded MPRIF liability. $\qquad$

| $4.43 \%$ | $\$$ | 170,386 |
| :--- | :--- | ---: |
| $1.61 \%$ |  | 61,924 |
| $6.04 \%$ | $\$$ | 232,310 |
| $0.27 \%$ |  | 10,385 |
|  |  |  |
| $15.08 \%, 976$ |  |  |

C. Contribution Sufficiency/(Deficiency) (A.4-B.4) $\qquad$ $(3.33 \%) \quad \$ \quad(127,850)$

Projected annual payroll for fiscal year beginning on the valuation date
$\qquad$
b. Due to unfunded non-MPRIF liability $\qquad$
c. Total supplemental contribution amortization. $\qquad$
3. Allowance for expenses $\qquad$ 0.27\%
4. Total annual contribution for fiscal year ending June 30, 2009. .
$\qquad$

* Employer contribution rate is blended to reflect rates of 13.14 percent of pay for Basic members, 5.50 percent for pay for non-MTRFA Coordinated members, and 9.14 percent of pay for MTRFA Coordinated members.
** Includes contributions from School District \#1, the City of Minneapolis and matching state contributions.


## Solvency Test

(Dollar Amounts in Thousands)

## Aggregate Accrued Liabilities

| Valuation <br> as of | (1) <br> Member | (2) <br> June 30 <br> and <br> Contributions | (3) <br> Members <br> (Employer <br> Financed <br> Portion) | Valuation <br> Assets | $(\mathbf{1 )}$ | (2) | (3) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999 | $\$ 1,321,579$ | $\$ 6,751,682$ | $\$ 5,186,308$ | $\$ 14,011,247$ | $100 \%$ | $100 \%$ | $100.0 \%$ |
| 2000 | $\$ 1,354,683$ | $\$ 8,055,622$ | $\$ 5,392,136$ | $\$ 15,573,151$ | $100 \%$ | $100 \%$ | $100.0 \%$ |
| 2001 | $\$ 1,403,755$ | $\$ 9,106,198$ | $\$ 5,394,031$ | $\$ 16,834,024$ | $100 \%$ | $100 \%$ | $100.0 \%$ |
| 2002 | $\$ 1,483,243$ | $\$ 9,555,364$ | $\$ 5,464,492$ | $\$ 17,378,994$ | $100 \%$ | $100 \%$ | $100.0 \%$ |
| 2003 | $\$ 1,561,048$ | $\$ 9,713,507$ | $\$ 5,581,824$ | $\$ 17,384,179$ | $100 \%$ | $100 \%$ | $100.0 \%$ |
| 2004 | $\$ 1,632,995$ | $\$ 10,092,955$ | $\$ 5,792,834$ | $\$ 17,519,909$ | $100 \%$ | $100 \%$ | $100.0 \%$ |
| 2005 | $\$ 1,704,913$ | $\$ 10,438,051$ | $\$ 5,878,446$ | $\$ 17,752,917$ | $100 \%$ | $100 \%$ | $95.4 \%$ |
| 2006 | $\$ 1,765,117$ | $\$ 12,526,588$ | $\$ 6,387,406$ | $\$ 19,035,612$ | $100 \%$ | $100 \%$ | $74.3 \%$ |
| 2007 | $\$ 1,799,910$ | $\$ 13,112,891$ | $\$ 6,557,513$ | $\$ 18,794,389$ | $100 \%$ | $100 \%$ | $59.2 \%$ |
| 2008 | $\$ 1,883,371$ | $\$ 13,567,065$ | $\$ 6,780,405$ | $\$ 18,226,985$ | $100 \%$ | $100 \%$ | $40.9 \%$ |

## Schedule of Active Member Valuation Data

| Year <br> Ended <br> June 30 | Active <br> Members |
| :---: | :---: |
| 1999 | 68,613 |
| 2000 | 70,508 |
| 2001 | 71,097 |
| 2002 | 71,690 |
| 2003 | 71,916 |
| 2004 | 72,008 |
| 2005 | 74,552 |
| 2006 | 79,164 |
| 2007 | 77,694 |
| 2008 | 76,515 |


| (\$ in thousands) |
| :---: |
| Annual |
| Covered Payroll |
| $\$ 2,625,254$ |
| $\$ 2,704,575$ |
| $\$ 2,812,000$ |
| $\$ 2,873,771$ |
| $\$ 2,952,887$ |
| $\$ 3,032,483$ |
| $\$ 3,121,571$ |
| $\$ 3,430,645$ |
| $\$ 3,532,159$ |
| $\$ 3,645,230$ |


| $\%$ <br> Increase in <br> Covered Payroll | $\$$ <br> Annual <br> Average |
| :---: | :---: |
| $8.3 \%$ | $\$ 38,262$ |
| $3.0 \%$ | $\$ 38,858$ |
| $4.0 \%$ | $\$ 39,552$ |
| $2.2 \%$ | $\$ 40,086$ |
| $2.8 \%$ | $\$ 41,060$ |
| $2.7 \%$ | $\$ 42,113$ |
| $2.9 \%$ | $\$ 41,871$ |
| $9.9 \%$ | $\$ 43,336$ |
| $3.0 \%$ | $\$ 45,462$ |
| $3.2 \%$ | $\$ 47,641$ |

\$
Annual
Average
\$38,262
\$38,858
\$39,552
\$40,086
41,060
\$42,113
\$41,871
\$45,462
\$47,641

# Schedule of Retirees and Beneficiaries Added To and Removed From Retirement Rolls 

| Fiscal Year | Added To Rolls |  | Removed From Rolls |  | Rolls: <br> June 1, 200X Payment |  |  | Average <br> Annual <br> Allowances |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Annual <br> Allowances | Number | Annual Allowances | Number |  | Annual <br> Allowances |  |  |
| 2008* |  |  |  |  |  |  |  |  |  |
| Retirement | 6,781 | \$267,146,737 | 2,586 | \$ 95,109,782 | 42,400 | \$ | 1,231,768,186 | \$ | 29,051 |
| Disability | 104 | \$ 2,596,324 | 93 | \$ 2,408,229 | 611 | \$ | 11,635,841 | \$ | 19,044 |
| Beneficiaries | 823 | \$ 24,054,314 | 398 | \$ 10,168,388 | 3,855 | \$ | 93,067,932 | \$ | 24,142 |
| 2007 |  |  |  |  |  |  |  |  |  |
| Retirement | 2,222 | \$ 62,734,162 | 767 | \$ 20,372,241 | 38,205 | \$ | 1,059,731,231 | \$ | 27,738 |
| Disability | 59 | \$ 998,126 | 63 | \$ 1,347,548 | 600 | \$ | 11,447,746 | \$ | 19,080 |
| Beneficiaries | 355 | \$ 8,269,118 | 141 | \$ 2,933,302 | 3,430 | \$ | 79,182,006 | \$ | 23,085 |
| 2006 |  |  |  |  |  |  |  |  |  |
| Retirement | 2,300 | \$ 62,956,636 | 670 | \$ 18,431,998 | 36,750 | \$ | 1,016,543,840 | \$ | 27,661 |
| Disability | 83 | \$ 1,363,524 | 66 | \$ 1,427,682 | 604 | \$ | 11,586,536 | \$ | 19,183 |
| Beneficiaries | 337 | \$ 7,296,282 | 149 | \$ 2,867,820 | 3,216 | \$ | 72,667,165 | \$ | 22,596 |
| 2005 |  |  |  |  |  |  |  |  |  |
| Retirement | 2,106 | \$ 57,668,914 | 661 | \$ 16,831,656 | 35,120 | \$ | 971,477,075 | \$ | 27,661 |
| Disability | 58 | \$ 1,011,616 | 59 | \$ 1,288,335 | 587 | \$ | 11,409,732 | \$ | 19,437 |
| Beneficiaries | 297 | \$ 6,475,987 | 154 | \$ 3,016,273 | 3,028 | \$ | 67,280,901 | \$ | 22,219 |
| 2004 |  |  |  |  |  |  |  |  |  |
| Retirement | 1,726 | \$ 48,266,626 | 689 | \$ 17,942,943 | 33,675 | \$ | 933,150,918 | \$ | 27,710 |
| Disability | 74 | \$ 1,431,398 | 45 | \$ 943,335 | 588 | \$ | 11,462,253 | \$ | 19,494 |
| Beneficiaries | 299 | \$ 6,196,059 | 137 | \$ 2,506,367 | 2,885 | \$ | 62,690,339 | \$ | 21,730 |
| 2003 |  |  |  |  |  |  |  |  |  |
| Retirement | 1,752 | \$ 45,213,170 | 681 | \$ 16,595,867 | 32,638 | \$ | 905,702,949 | \$ | 27,751 |
| Disability | 60 | \$ 838,012 | 54 | \$ 1,199,063 | 559 | \$ | 10,839,002 | \$ | 19,355 |
| Beneficiaries | 278 | \$ 6,006,648 | 136 | \$ 2,022,035 | 2,723 | \$ | 58,540,855 | \$ | 21,499 |
| 2002 - Total Benefit Recipients |  |  |  |  | 34,974 | \$ | 946,344,333 |  |  |
| 2001 - Total Benefit Recipients |  |  |  |  | 33,757 | \$ | 861,787,476 |  |  |
| 2000 - Total Benefit Recipients |  |  |  |  | 31,946 | \$ | 755,036,577 |  |  |
| 1999 - Total Benefit Recipients |  |  |  |  | 29,749 | \$ | 620,937,964 |  |  |

[^3]Note: Detailed data on retirees and beneficiaries added to and removed from rolls is not available prior to fiscal year 2003.

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Teachers Retirement Association of Minnesota A Pension Trust Fund of the State of Minnesota

## Statistical

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## Statistical Summary

TRA complies with GASB Statement No. 44, Economic Condition Reporting: The Statistical Section, issued in May 2004. The pronouncement establishes and modifies requirements related to the supplementary information presented in this section of the report. This section of the report provides detailed information about TRA as a context for understanding what the information in the financial statement note disclosures, and required supplementary information indicates about the Association's overall financial condition.
The schedules and graphs beginning on page 77 show trend information about the growth of TRA assets over the past 10 years. These schedules, and others, provide detailed information about the trends of key sources of additions and deductions to plan assets.
The schedule of Pension Assets Compared to Pension Liabilities, found on pages 78-79, show the funding progress of the plan for the past 10 years on accumulating assets to cover projected pension liabilities which will ultimately be due at retirement.

The Contribution Rate chart on page 77 provides historical information on the total member and employer contribution rates.
The schedules on pages 80-89 include detailed information regarding the number and type of benefit recipients, and information as to the benefit amount.
The chart on page 88 provides a profile of TRA active members on June 30,2007 , by age and service credit totals.

The chart on page 89 contains information on the total number of members by type.
The schedules on page 90 detail the largest TRA employer units by covered employees and by types of employer.

All non-accounting data is derived from TRA internal sources. Due to the merger of the Minneapolis Teachers Retirement Fund Association (MTRFA) into TRA, approximately 4,000 former MTRFA benefit recipients were transferred to TRA as of June 30, 2006. During fiscal year 2007, TRA continued to operate the payment processing systems formerly used by MTRFA. As a result, some of the schedules presented in the fiscal year 2007 report were not able to include the former MTRFA benefit recipients into the exhibits shown.

The conversion of former MTRFA members into TRA's data base was completed in September 2007. The fiscal year 2008 statistics presented in this report eliminate duplication of member counts inherent while TRA operated two separate processes.

## 10-Year History of Plan Net Assets

| June 30 <br> Fiscal Year End | Plan Net Assets | \% Change <br> From Prior Year |
| :---: | :---: | :---: |
| 1999 | $\$ 16,692,428,535$ | - |
| 2000 | $\$ 17,749,580,369$ | $6.3 \%$ |
| 2001 | $\$ 15,902,335,962$ | $-10.4 \%$ |
| 2002 | $\$ 13,997,762,175$ | $-12.0 \%$ |
| 2003 | $\$ 13,061,606,463$ | $-6.7 \%$ |
| 2004 | $\$ 15,095,803,651$ | $15.6 \%$ |
| 2005 | $\$ 15,928,603,867$ | $5.5 \%$ |
| 2006 | $\$ 17,764,526,441$ | $11.5 \%$ |
| 2007 | $\$ 19,938,881,872$ | $12.2 \%$ |
| 2008 | $\$ 18,106,965,761$ | $-9.2 \%$ |

## 10-Year History of Contribution Rates

| Year | Basic Program Employee Contribution Rate | Basic Program Employer Contribution Rate | Basic Program <br> Total Contribution Rate | Coordinated Employee Contribution Rate | Coordinated Employer Contribution Rate | Coordinated <br> Total <br> Contribution Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2000 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2001 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2002 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2003 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2004 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2005 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2006 | 9.00\% | 9.00\% | 18.00\% | 5.0\% | 5.0\% | 10.00\% |
| 2007 | 9.00\% | 9.00\% | 18.00\% | 5.5\% | 5.0\% | 10.50\% |
| 2008 | 9.00\% | 9.50\% | 18.50\% | 5.5\% | 5.5\% | 11.00\% |

## Teachers Retirement Association 10-Year History of Changes in Plan Net Assets

|  |  | 1999 |  | 2000 |  | 2001 |  | 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions |  |  |  |  |  |  |  |  |
| Member Contributions | \$ | 132,040,005 | \$ | 138,696,271 | \$ | 145,075,285 | \$ | 152,331,067 |
| Employer Contributions |  | 130,525,591 |  | 134,418,833 |  | 139,799,408 |  | 142,221,589 |
| Net Income (Loss) From Investing Activity |  | 1,775,404,067 |  | 1,555,989,313 |  | $(1,244,340,580)$ |  | $(1,236,187,539)$ |
| Other Income, Net |  | 1,587,211 |  | 2,387,928 |  | 3,156,294 |  | 4,488,404 |
| Total Additions to Plan Net Assets | \$ | 2,039,556,874 | \$ | 1,831,492,345 | \$ | $(956,309,593)$ | \$ | (937,146,479) |
| Deductions |  |  |  |  |  |  |  |  |
| Pension Benefits | \$ | 620,937,964 | \$ | 755,036,577 | \$ | 861,767,476 | \$ | 946,344,333 |
| Refunds |  | 6,271,448 |  | 7,262,919 |  | 7,608,839 |  | 7,353,363 |
| Administrative Expenses |  | 7,976,908 |  | 8,137,683 |  | 13,077,718 |  | 12,911,651 |
| Other |  | 1,764,550 |  | 3,903,332 |  | 8,460,781 |  | 817,961 |
| Total Deductions from Plan Net Assets | \$ | 636,950,870 | \$ | 774,340,511 | \$ | 890,914,814 | \$ | 967,427,308 |
| Net Increase (Decrease) | \$ | 1,402,606,004 | \$ | 1,057,151,834 |  | $(1,847,224,407)$ |  | (1,904,573,787) |
| Net Assets Held in Trust, Beginning of Year |  | 5,289,822,531 |  | 16,692,428,535 |  | 17,749,580,369 |  | 15,902,335,962 |
| Net Assets Held in Trust,End of Year $\quad \underline{\underline{\$ 16,692,428,535 ~}} \quad \underline{\underline{\$ 17,749,580,369}} \quad \underline{\underline{\$ 15,902,355,962}} \quad \underline{\underline{\$ 13,997,762,175}}$ |  |  |  |  |  |  |  |  |

*"Net assets held in trust, beginning of year" were restated to reflect $\$ 745,214,858$ of assets assumed as a result of merger with MTRFA.

## 10-Year History of Pension Assets vs. Pension

 Liabilities|  | 1999 | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ |
| :--- | ---: | ---: | ---: | ---: |
| Pension Assets (Actuarial Value) | $\$ 14,011,247,000$ | $\$ 15,573,151,000$ | $\$ 16,834,024,000$ | $\$ 17,378,994,000$ |
| Accrued Liabilities | $\underline{\$ 13,259,569,000}$ | $\underline{\$ 14,802,441,000}$ | $\underline{\$ 15,903,099,000}$ | $\underline{\$ 16,503,099,000}$ |
| Unfunded Liabilities (Sufficiency) | $\underline{\underline{\$(751,678,000)}}$ | $\underline{\underline{\$(770,710,000)}}$ | $\underline{\underline{\$(930,925,000)}}$ | $\underline{\underline{\$(875,895,000)}}$ |
| Funded Ratio | $105.7 \%$ | $105.2 \%$ | $105.9 \%$ | $105.3 \%$ |


|  | 2003 |  | 2004 |  | 2005 |  | 2006* |  | 2007 | 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 155,577,148 | \$ | 159,139,548 | \$ | 160,982,004 | \$ | 177,084,906 | \$ | 199,868,969 | \$ | 209,592,461 |
|  | 149,480,510 |  | 151,028,911 |  | 157,693,090 |  | 200,285,886 |  | 209,219,130 |  | 231,561,322 |
|  | 293,085,074 |  | 2,204,787,495 |  | 1,575,519,541 |  | 1,951,778,366 |  | 3,056,492,094 |  | (926,044,140) |
|  | 4,416,909 |  | 7,266,004 |  | 6,295,759 |  | 11,412,062 |  | 7,901,279 |  | 7,529,753 |
| \$ | 602,559,641 | \$ | 2,522,221,958 | \$ | 1,900,490,394 | \$ | 2,340,561,220 | \$ | 3,473,481,472 | \$ | (477,360,604) |
| \$ | 978,466,617 | \$ | 1,008,410,471 | \$ | 1,048,440,525 |  | \$1,224,212,024 | \$ | 1,273,093,384 |  | 1,330,836,947 |
|  | 6,656,191 |  | 6,861,708 |  | 6,744,116 |  | 11,872,504 |  | 12,088,193 |  | 11,770,086 |
|  | 13,158,348 |  | 12,179,212 |  | 10,883,151 |  | 11,912,701 |  | 10,635,365 |  | 10,261,139 |
|  | 434,197 |  | 573,379 |  | 1,622,386 |  | 1,856,275 |  | 3,309,099 |  | 1,687,335 |
| \$ | 998,715,353 | \$ | 1,028,024,770 | \$ | 1,067,690,178 | \$ | 1,249,853,504 | \$ | 1,299,126,041 |  | 1,354,555,508 |
| \$ | (396,155,712) | \$ | 1,494,197,188 | \$ | 832,800,216 |  | 1,090,707,716 | \$ | 2,174,355,431 |  | (1,831,916,112) |
| \$13,997,762,175 |  |  | 3,601,606,463 |  | 5,095,803,651 |  | 16,673,818,725 |  | 17,764,526,441 |  | 9,938,881,872 |
| \$13,601,606,463 |  |  | 5,095,803,651 |  | 5,928,603,867 |  | 17,764,526,441 |  | 19,938,881,872 |  | 8,106,965,760 |


| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$17,384,179,000 | \$17,519,909,000 | \$17,752,917,000 | \$19,035,612,000 | \$18,794,389,076 | \$18,226,985,000 |
| \$16,856,379,000 | \$17,518,784,000 | \$18,021,410,000 | \$20,679,111,000 | \$21,470,314,497 | \$22,230,841,000 |
| \$ (527,800,000) | \$ (1,125,000) | \$ 268,493,000 | \$ 1,643,499,000 | \$ 2,675,925,421 | \$ (4,003,856,000) |
| 103.1\% | 100.0\% | 98.5\% | 92.0\% | 87.5\% | 82.0\% |

## 10-Year History of Benefit Recipients by Category

| Year | Annuitants | Disabilitants | Survivors | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1999 | 27,457 | 476 | 1,816 | 29,749 |
| 2000 | 29,525 | 509 | 1,912 | 31,946 |
| 2001 | 31,169 | 518 | 2,070 | 33,757 |
| 2002 | 32,231 | 551 | 2,192 | 34,974 |
| 2003 | 33,290 | 558 | 2,351 | 36,199 |
| 2004 | 34,581 | 589 | 2,479 | 37,649 |
| 2005 | 35,779 | 581 | 2,597 | 38,957 |
| 2006 | 40,973 | 630 | 3,080 | 44,683 |
| 2007 | 42,679 | 636 | 3,223 | 46,538 |
| 2008 | 43,041 | 641 | 3,299 | 46,981 |

## Schedule of Benefit Amounts Paid

For Month of June 2008

| Monthly <br> Benefit Amount | Number of <br> Recipients | Cumulative <br> Total | Percent | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: | :---: |
| Under \$100 - 499 | 5,164 | 5,164 | $11.02 \%$ | $11.02 \%$ |
| $\$ 500-$ | 999 | 4,790 | 9,954 | $10.22 \%$ |

## 10-Year History of Benefits and Refunds by Type

| Pension Benefits | 1999 | 2000 | 2001 | 2002 |
| :---: | :---: | :---: | :---: | :---: |
| Annuities | \$602,176,461 | \$734,173,055 | \$838,646,379 | \$919,648,266 |
| Disabilities | 8,869,921 | 9,837,686 | 10,530,210 | 11,477,973 |
| Survivor Benefits | 9,891,582 | 11,025,836 | 12,222,381 | 14,096,110 |
| Total Pension Benefits | \$620,937,964 | \$755,036,577 | \$861,398,970 | \$945,222,349 |
| Annuities Redirected to Earnings Limitation Savings Account (ELSA) | NA | NA | \$ 388,508 | \$ 1,121,984 |
| Refunds | \$ 6,271,448 | \$ 7,262,919 | \$ 7,608,838 | \$ 7,353,363 |
| Total Benefits and Refunds | $\underline{\underline{\$ 627,209,412}}$ | \$762,299,496 | \$869,396,316 | \$953,697,696 |


| 2003 |  | 2004 | 2005 | 2006 | 2007 | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$952,017,588 | \$ | 979,108,590 | \$1,019,776,085 | \$1,190,295,077 | \$ 1,241,862,723 | \$ 1,297,772,858 |
| 11,346,039 |  | 11,734,673 | 11,810,137 | 13,118,722 | 11,923,494 | 12,049,579 |
| 13,613,284 |  | 14,201,212 | 13,869,225 | 17,616,002 | 15,774,162 | 17,460,466 |
| \$976,976,911 |  | 1,005,044,475 | \$1,045,455,447 | \$1,221,029,801 | \$ 1,269,560,379 | \$ 1,327,282,903 |
| \$ 1,489,708 | \$ | 3,365,997 | \$ 2,985,078 | \$ 3,182,223 | \$ 3,533,005 | \$ 3,554,045 |
| \$ 6,656,191 | \$ | 6,861,707 | \$ 6,744,116 | \$ 11,872,504 | \$ 12,088,193 | \$ 11,770,086 |
| \$985,122,810 |  | 1,015,272,179 | $\underline{\text { \$1,055,184,641 }}$ | $\underline{\text { \$1,236,084,528 }}$ | \$ 1,285,181,577 | \$ 1,342,607,034 |

## Schedule of Benefit Recipients by Current Age

For Month of June 2008


Age as of June 30, 2007

## Benefit Recipients by Effective Date of Retirement

For Month of June 2008


## Schedule of New Retirees and Initial Benefit Paid

For the Ten Fiscal Years Ending June 30, 2008

| Fiscal Year | Years of Formula Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $<10$ | 10-15 | 16-20 | 21-25 | 26-30 | Over 30 | Total |
| 1999 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$243 | \$696 | \$1,217 | \$1,664 | \$2,406 | \$3,205 | \$2,527 |
| Number of Retirees | 172 | 148 | 191 | 231 | 420 | 1,716 | 2,878 |
| 2000 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$233 | \$668 | \$1,164 | \$1,661 | \$2,344 | \$3,115 | \$2,229 |
| Number of Retirees | 244 | 234 | 190 | 269 | 432 | 1,308 | 2,677 |
| 2001 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$213 | \$740 | \$1,114 | \$1,743 | \$2,523 | \$3,262 | \$2,312 |
| Number of Retirees | 236 | 191 | 175 | 245 | 362 | 1,125 | 2,334 |
| 2002 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$242 | \$777 | \$1,247 | \$1,638 | \$2,298 | \$3,137 | \$2,089 |
| Number of Retirees | 249 | 172 | 138 | 203 | 201 | 813 | 1,776 |
| 2003 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$249 | \$7589 | \$1,242 | \$1,605 | \$2,451 | \$3,204 | \$2,266 |
| Number of Retirees | 213 | 147 | 129 | 162 | 191 | 911 | 1,753 |
| 2004 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$260 | \$738 | \$1,155 | \$1,832 | \$2,393 | \$3,227 | \$2,324 |
| Number of Retirees | 258 | 162 | 119 | 158 | 157 | 1,102 | 1,956 |
| 2005 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$267 | \$768 | \$1,235 | \$1,688 | \$2,515 | \$3,224 | \$2,424 |
| Final Average Salary | \$28,747 | \$35,240 | \$44,812 | \$52,867 | \$58,063 | \$60,069 | \$53,257 |
| Number of Retirees | 204 | 110 | 118 | 132 | 169 | 1,055 | 1,788 |
| 2006 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$239 | \$843 | \$1,349 | \$1,820 | \$2,523 | \$3,320 | \$2,422 |
| Final Average Salary | \$21,194 | \$37,339 | \$50,455 | \$36,045 | \$58,519 | \$62,537 | \$54,018 |
| Number of Retirees | 230 | 144 | 170 | 151 | 207 | 1,094 | 1,996 |
| 2007 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$257 | \$781 | \$1,455 | \$1,932 | \$2,608 | \$3,548 | \$2,465 |
| Final Average Salary | \$22,846 | \$38,717 | \$50,770 | \$58,606 | \$61,332 | \$63,080 | \$55,098 |
| Number of Retirees | 256 | 162 | 183 | 181 | 190 | 1,238 | 2,210 |
| 2008 |  |  |  |  |  |  |  |
| Avg. Monthly Benefit | \$284 | \$917 | \$1,471 | \$1,943 | \$2,663 | \$3,474 | \$2,524 |
| Final Average Salary | \$23,542 | \$42,298 | \$52,288 | \$58,998 | \$62,353 | \$65,360 | \$56,822 |
| Number of Retirees | 252 | 147 | 150 | 216 | 237 | 1,107 | 2,109 |

Note: Final Average Salary by years of service is unavailable for years prior to fiscal year 2005.

## Distribution of TRA Benefits <br> Mailing Address of Benefit Reciipient

February 2008
Total Recipients: 46,639


## Distribution of TRA Benefits

## Mailing Address of Benefit Recipient

June 2008
Total Recipients: 46,866


## Schedule of Benefit Recipients by Type

For Month of June 2008

| Monthly Benefit Amount |  | Number of Recipients |
| :---: | :---: | :---: |
| \$ | 1 - \$ 250 | 2,621 |
| \$ | $251-\$ 500$ | 2,545 |
| \$ | 501-\$ 750 | 2,371 |
| \$ | 751-\$ 1,000 | 2,418 |
|  | 1,001 - \$ 1,250 | 2,468 |
| \$ | 1,251 - \$ 1,500 | 2,602 |
| \$ | 1,501 - \$ 1,750 | 2,952 |
| \$ | 1,751 - \$ 2,000 | 3,125 |
|  | 2,001 - \$ 2,250 | 3,227 |
| \$ | 2,251 - \$ 2,500 | 3,196 |
| \$ | 2,501 - \$ 2,750 | 2,929 |
| \$ | 2,751 - \$ 3,000 | 2,528 |
| \$ | 3,001 - \$ 3,250 | 2,095 |
| \$ | 3,251 - \$ 3,500 | 1,915 |
| \$ | 3,501 - \$ 3,750 | 1,631 |
| \$ | 3,751 - \$ 4,000 | 1,436 |
|  | 4,001 - \$ 4,250 | 1,209 |
| \$ | 4,251 - \$ 4,500 | 1,037 |
| \$ | 4,501 - \$ 4,750 | 854 |
|  | 4,751 - \$ 5,000 | 669 |
| \$ | 5,001 - \$ 5,250 | 558 |
| \$ | 5,251 - \$ 5,500 | 452 |
| \$ | 5,501 - \$ 5,750 | 355 |
| \$ | 5,751 - \$ 6,000 | 292 |
| \$ | 6,001 - \$ 6,250 | 270 |
| \$ | 6,251 - \$ 6,500 | 189 |
| \$ | 6,501 - \$ 6,750 | 188 |
| \$ | 6,751 - \$ 7,000 | 157 |
| \$ | 7,001 - \$ 7,250 | 129 |
| \$ | 7,251 - \$ 7,500 | 97 |
| \$ | 7,501 - \$ 7,750 | 72 |
| \$ | 7,751 - \$ 8,000 | 61 |
| \$ | 8,001 - \$ 8,250 | 40 |
| \$ | 8,251 - \$ 8,500 | 40 |
| \$ | 8,501 - \$ 8,750 | 32 |
| \$ | 8,751 - \$ 9,000 | 19 |
| \$ | 9,001 - \$ 9,250 | 13 |
| \$ | 9,251 - \$ 9,500 | 16 |
| \$ | 9,501 - \$ 9,750 | 6 |
|  | 9,751 - \$10,000 | 12 |
|  | 10,001 and over | 40 |
|  | Total | 46,866 |

## Membership Data

## Distribution of Active Participants*

Years of Service as of June 30, 2008

| Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-19 | 3 | - | - | - | - | - | - | - | - | 3 |
| AE** | 194 |  |  |  |  |  |  |  |  | \$194 |
| 20-24 | 2,389 | - | - | - | - | - | - | - | - | 2,389 |
| AE** | 21,109 |  |  |  |  |  |  |  |  | \$21,109 |
| 25-29 | 7,706 | 1,746 | 1 | - | - | - | - | - | - | 9,450 |
| AE** | 30,831 | 43,965 | 32,773 |  |  |  |  |  |  | \$33,254 |
| 30-34 | 3,212 | 5,352 | 1,242 | - | - | - | - | - | - | 9,806 |
| AE** | 29,537 | 46,163 | 55,452 |  |  |  |  |  |  | \$41,894 |
| 35-39 | 2,282 | 2,760 | 4,375 | 900 | - | - | - | - | - | 10,317 |
| AE** | 25,540 | 46,032 | 56,445 | 63,413 |  |  |  |  |  | \$47,431 |
| 40-44 | 1,948 | 1,678 | 2,333 | 2,919 | 597 | - | - | - | - | 9,475 |
| AE** | 22,826 | 45,561 | 56,108 | 63,195 | 66,602 |  |  |  |  | \$50,242 |
| 45-49 | 1,829 | 1,584 | 1,514 | 1,893 | 2,327 | 501 | - | - | - | 9,648 |
| AE** | 22,078 | 45,487 | 54,815 | 62,204 | 65,751 | 66,398 |  |  |  | \$51,766 |
| 50-54 | 1,451 | 1,193 | 1,484 | 1,522 | 1,543 | 2,223 | 988 | - | - | 10,404 |
| AE** | 19,359 | 43,917 | 54,466 | 60,788 | 65,523 | 69,891 | 68,943 |  |  | \$54,954 |
| 55-59 | 1,130 | 932 | 1,133 | 1,418 | 1,358 | 1,497 | 2,452 | 501 | - | 10,421 |
| AE** | 18,694 | 42,055 | 53,023 | 60,187 | 66,350 | 68,636 | 69,841 | 70,307 |  | \$58,062 |
| 60-64 | 639 | 353 | 423 | 523 | 554 | 484 | 299 | 348 | 40 | 3,663 |
| AE** | 12,674 | 36,942 | 50,103 | 58,631 | 66,513 | 68,272 | 75,064 | 76,125 | 73,199 | \$53,167 |
| 65-69 | 277 | 85 | 67 | 60 | 63 | 48 | 36 | 38 | 22 | 696 |
| AE** | 7,275 | 31,137 | 48,836 | 58,542 | 73,164 | 75,915 | 82,066 | 87,523 | 77,294 | \$39,770 |
| 70-74 | 92 | 15 | 10 | 5 | 2 | 5 | 6 | 5 | 5 | 145 |
| AE** | 4,265 | 21,821 | 43,857 | 39,686 | 48,988 | 71,358 | 75,459 | 109,821 | 66,821 | \$21,706 |
| 75+ | 65 | 17 | 8 | 3 | 1 | 1 | - | 1 | 2 | 98 |
| AE** | 12,504 | 41,034 | 60,524 | 52,544 | 36,950 | 36,374 |  | 104,530 | 95,806 | \$25,731 |
| Total | 23,023 | 15,712 | 12,590 | 9,243 | 6,445 | 4,759 | 3,781 | 893 | 69 | 76,515 |
| AE** | 25,477 | 45,032 | 55,285 | 61,851 | 66,030 | 65,617 | 70,145 | 73,566 | 74,698 | \$47,641 |

* Reflects active participants as of June 30, 2008.
** $A E=$ Average earnings (in dollars)


## 10-Year Summary of Membership

| Year Ended <br> June 30 | Active <br> Members | Inactive <br> Members | Benefit <br> Recipients |
| :---: | :---: | :---: | :---: |
| 1999 | 68,613 | 25,822 | 29,749 |
| 2000 | 70,508 | 25,208 | 31,946 |
| 2001 | 71,097 | 27,256 | 33,757 |
| 2002 | 71,690 | 27,702 | 34,974 |
| 2003 | 71,916 | 28,560 | 36,199 |
| 2004 | 72,008 | 28,990 | 37,649 |
| 2005 | 74,552 | 29,031 | 38,957 |
| 2006 | 79,164 | 33,729 | 44,683 |
| 2007 | 77,694 | 35,550 | 46,538 |
| 2008 | 76,515 | 34,283 | 46,981 |

## 10-Year Summary of Membership



## Principal Participating Employers

As of June 30, 2008

|  | 2008 |  |  | 2007 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer Unit Name | Covered <br> Employees | Rank | Percentage of Active Membership | Covered <br> Employees | Rank | Percentage of Active Membership |
| Anoka-Hennepin - ISD \#11 | 3,487 | 1 | 4.56 | 3,506 | 2 | 4.51 |
| Minneapolis - Special School District \#1 | 3,406 | 2 | 4.45 | 4,217 | 1 | 5.43 |
| MnSCU (MN State Colleges and Universities) | 3,146 | 3 | 4.11 | 3,253 | 3 | 4.19 |
| Rosemount-Apple Valley- <br> Eagan - ISD \#196 | 2,679 | 4 | 3.50 | 2,685 | 4 | 3.46 |
| Osseo - ISD \#279 | 1,923 | 5 | 2.52 | 1,973 | 5 | 2.54 |
| South Washington County - ISD \#833 | 1,461 | 6 | 1.91 | 1,454 | 6 | 1.87 |
| Rochester - ISD \#535 | 1,457 | 7 | 1.91 | 1,412 | 7 | 1.81 |
| Robbinsdale - ISD \#281 | 1,181 | 8 | 1.54 | 1,245 | 8 | 1.60 |
| Bloomington - ISD \#271 | 1,020 | 9 | 1.33 | 994 | 10 | 1.28 |
| St. Cloud - ISD \#742 | 967 | 10 | 1.26 | NA | NA | NA |
| Lakeville - ISD 94 |  |  |  | 1,078 | 9 | 1.39 |
| All Other | 55,788 |  | 72.91 | 55,877 |  | 71.92 |
| Total | $\underline{\underline{76,515}}$ |  | $\underline{\underline{100.00}}$ | $\underline{\underline{77,694}}$ |  | $\underline{\underline{100.00}}$ |

*Information not available prior to 2007.

## Number of Employer Units

As of June 30, 2008

|  | Independent <br> School <br> Districts | Joint Power <br> Units | MN State <br> Colleges and <br> Universities <br> (MnSCU) | Charter <br> Schools | State <br> Agencies | Others | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999 | 344 | 41 | 39 | 15 | 17 | 2 | 458 |
| 2000 | 342 | 40 | 40 | 25 | 16 | 2 | 465 |
| 2001 | 340 | 40 | 40 | 28 | 14 | 1 | 463 |
| 2002 | 340 | 39 | 40 | 32 | 11 | 1 | 463 |
| 2003 | 340 | 38 | 40 | 88 | 8 | 1 | 515 |
| 2004 | 345 | 37 | 39 | 110 | 6 | 1 | 538 |
| 2005 | 345 | 38 | 39 | 136 | 6 | 1 | 565 |
| 2006 | 348 | 37 | 39 | 142 | 6 | 1 | 573 |
| 2007 | 343 | 37 | 39 | 139 | 7 | 1 | 566 |
| 2008 | 344 | 33 | 39 | 157 | 5 | 2 | 580 |

## Plan Statement

## Plan Statement

June 30, 2008

## Purpose

The Minnesota Teachers Retirement Association (TRA) was established on July 1, 1931, by the 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

TRA is managed by eight trustees - three are statutorily appointed and five are elected. The statutory trustees are the Commissioner of Education, 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 office of the Attorney General.

## Membership

All teachers employed in public elementary and secondary schools, joint powers, charter schools and all other educational institutions maintained by the State of Minnesota (except those teachers employed by the cities of St. Paul and Duluth, or by the University of Minnesota) are required to be members of TRA. Teachers employed by Minnesota State Colleges and Universities (MnSCU) have a one-time election to join TRA. No Minnesota state college or university teacher is a member except for purposes of Social Security coverage if that teacher has coverage by the Defined Contribution Retirement Plan administered by the MnSCU 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 full days per fiscal year (July 1 - June 30). Service credit may also 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, the service credit earned is the actual hours taught divided by a five-hour standard for the day. 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.

## Vesting

In a pension plan, vesting means a member has earned sufficient service credit to be eligible for a monthly benefit.
TRA members who have performed covered service after May 15, 1989, are vested after three years of teaching service. TRA members who last worked prior to May 16, 1989, require five years or, in some cases, ten years of service credit earned in order to be eligible for a monthly annuity benefit.

## Employee Contributions

TRA members pay a percentage of their gross annual salary as determined by their membership plan. Basic Plan members (without Social Security coverage) contribute 9.0 percent of their annual salary while Coordinated Plan members (coordinated with Social Security coverage) contribute 5.5 percent of their annual salary.

## Employer Contributions

Local school districts and other TRA-covered employer units provide contributions of 9.5 percent of total salary for members in the Basic Plan and 5.5 percent of total salary for members in the Coordinated Plan. For Coordinated Plan members the employer unit also makes the required matching contribution to the Social Security Administration.
Minneapolis Special School District \#1 pays an employer additional contribution of 3.64 percent of annual salary for TRA members employed by that school district.

## Retirement Benefit

The retirement benefit is determined by a formula based on the average of the member's highest five successive annual salaries, an accumulated percentage factor based on the total years of service credit, and the member's age 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.

## Coordinated Members First Hired 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:
a. The sum of:

- $\quad 1.20$ percent of average salary for the first 10 years of allowable service;
- 1.70 percent of average salary for each subsequent year prior to July 1, 2006; and
- 1.90 percent of average salary for each year of allowable service July 1, 2006 and after.
- No actuarial reduction if age plus years of service totals 90 . Otherwise, reduction of 0.25 percent for each month the member is under age 65 (or age 62 if 30 years of allowable service) at the time of retirement.
b. The sum of:
- $\quad 1.70$ percent of average salary for each year of allowable service prior to July 1, 2006; and
- 1.90 percent of average salary for each year of allowable service beginning July 1, 2006.
- Actuarial reduction (averaging 4.0 percent to 5.5 percent per year) applies if the member is under full Social Security benefit retirement age, but not to exceed age 65.
or
c. For certain eligible members first hired prior to July 1, 1969, a money purchase annuity equal to the actuarial equivalent of 220.00 percent of the member's accumulated deductions plus interest thereon.


## Coordinated Members First Hired 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 the sum of:

- 1.70 percent of average salary for each year of allowable service prior to July 1, 2006; and
- 1.90 percent of average salary for each year of allowable service beginning July 1, 2006.
Actuarial reduction (averaging 4.0 percent to
5.5 percent per year) applies if the member is under full Social Security benefit retirement age, but not to exceed age 66.


## Basic Members (Former MTRFA)

TRA has approximately 60 active Basic members from the former Minneapolis Teachers Retirement Fund Association (MTRFA) who were transferred to TRA effective June 30, 2006. Under the merger legislation, this group of former MTRFA members retain eligibility for the benefit provisions as provided by the MTRFA Articles of Incorporation and by-laws as they existed on June 30, 2006.
The retirement benefits for these members (with average salary defined as the average of the highest five successive annual salaries) are:

- 2.50 percent of average salary for each year of teaching service.
- No actuarial reduction applies if the retiring member is age 60 or any age with 30 years of teaching service.

If the member is age 55 with less than 30 years of teaching service, the retirement benefit is the greater of:
a. $\quad 2.25$ percent of average salary for each year of teaching service with reduction of 0.25 percent for each month the member is under age first eligible for a normal retirement benefit.
b. 2.50 percent of average salary for each year of teaching service assuming augmentation to the age first eligible for a normal retirement benefit at 3.00 percent per year and actuarial reduction for each month the member is under the age first eligible for a normal retirement benefit.

An alternative benefit is available to members who are at least age 50 and have seven years of teaching service. The benefit is based on the accumulation of the 6.50 percent "city deposits" to the Retirement Fund. Other benefits are also provided under this alternative depending on the member's age and teaching service.

## Basic Members (Non-MTRFA)

As of June 30, 2008, TRA had fewer than ten inactive members who retain eligibility for the Basic Plan and do not have eligibility for the provisions for former MTRFA Basic members. The retirement benefits (with average salary defined as the average of the highest five successive annual salaries) are the greater of:
a. 2.20 percent of average salary for each of the first ten years of allowable service and 2.70 percent of average salary for each subsequent year with reduction of 0.25 percent for each month the member is under age 65 at time of retirement or under age 62 if 30 years of allowable service. No reduction if age plus years of allowable service totals 90.
b. 2.70 percent of average salary for each year of allowable service assuming augmentation to age 65 at 3.00 percent per year and actuarial reduction for each month the member is under age 65.
or
c. For eligible members, a money purchase annuity equal to the actuarial equivalent of 220.00 percent of the member's accumulated deductions plus interest thereon

All members in this group have reached normal retirement age and are no longer subject to early retirement penalties.

## 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.
For members first hired prior to July 1, 2006, the deferred benefit is augmented by 3 percent interest compounded annually until January 1 of the year following attainment of age 55 and 5 percent thereafter until the retirement benefit begins.
All vested TRA members first hired after June 30, 2006, receive deferred annuity benefit increases of 2.5 percent per year between the date of termination and the effective date of retirement.

## Annuity Plan Options

Six different annuity plan options are available to TRA members providing monthly benefit payments for as long as the annuitant lives. The No Refund Plan provides the highest possible monthly benefit, but terminates upon the member's death. A member may choose to provide survivor benefits to a designated beneficiary(ies) by selecting one of the five plans which have survivorship features. A married member must choose one of the three survivorship plans (plans 4 through 6) listed below at retirement, unless the member's spouse waives the right to this type of annuity.

1. No Refund, For Life of Member
2. Guaranteed Refund
3. 15 -Years Guaranteed
4. $100 \%$ Survivorship with Bounceback
5. $50 \%$ Survivorship with Bounceback
6. $75 \%$ Survivorship with Bounceback

## Benefit Increase: January 1, 2009

The required reserves needed to pay retirement benefits are transferred from TRA's regular assets to the Minnesota Post Retirement Investment Fund (Post Fund) at the time of retirement. For fiscal year 2008, the Post Fund provided a benefit adjustment of 2.5 percent paid on January 1, 2009 that was based on two components: 1) the increase in inflation as reflected by the Consumer Price Index (CPI-W), and 2) the investment performance of the Post Fund portfolio.

The inflation component is paid up to a maximum of 2.5 percent based on the CPI-W increase determined at the end of each fiscal year for the preceding 12-month period. The inflation component is paid each year regardless of the amount of investment return.
An investment-based component is paid if investment returns exceed the amount needed to pay the cost-ofliving component and to cover the 6 percent earnings assumption that determined the original benefit at retirement. Investment gains and losses are smoothed over a five-year period. If a net investment loss results from the five-year smoothing calculation, no investment-based component is paid. Additionally, any accumulated investment losses from prior periods must be recovered through future investment gains before any investment-based component is paid. No investment-based component was payable for fiscal year 2008.

## Benefit Increase Method: Fiscal Year 2009 - Payable January 1, 2010

Based on legislation passed in 2008, the Minnesota Post Retirement Investment Fund (Post Fund) would be abolished if its composite funded ratio would decline under 80 percent. As of June 30, 2008, the funded ratio was 79.7 percent. Under provisions in the law, the assets and liabilities pertaining to retired TRA members in the Post Fund will be transferred to the TRA Fund on June 30, 2009.

The 2008 law that produced the merger of the Post Fund with the TRA Fund, also specified a revised method to determine future post-retirement increases. Beginning January 1, 2010, members retired at least 12 months will receive a fixed 2.5 percent increase annually. Prorated increases will be paid to members retired less than 12 months. The increases will be paid regardless of investment performance or inflation experienced.

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 vested member having combined service credit with any two or more 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 for retirement.

## Refunds

Upon termination of teaching service and application, TRA will issue a refund of a member's accumulated contributions plus 5 percent interest compounded annually if termination occurred before May 16, 1989, and 6 percent 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 8.5 percent, compounded annually from the date of the refund. If a member has more than two years of refunded service, they may repay a minimum portion, which is $1 / 3$ of the total service credit period for all refunds previously taken.

## Disability Benefits

An 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. State statute defines total and permanent disability 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.

## Survivor Benefits of Members Prior to Retirement

Certain benefits are available to the survivor(s) of members who die before officially retiring with TRA. Beneficiary designation options vary for married members and single members.

## Single Members

## Non-Vested

- A lump-sum death benefit equal to a member's accumulated deductions plus interest to the date of death is payable to either the designated beneficiary or estate, whichever is applicable. Interest is compounded annually at 6 percent. Contributions made by the employer are not included in this benefit. A member may designate any person(s), trust, or organization(s) as a beneficiary.
Vested
- For a member without a surviving spouse at the time of death, survivor benefits will automatically be paid for a period certain to all dependent children under the age of 20 , unless the member has chosen the lifetime monthly benefit option explained in the next paragraph is chosen. These payments are made from the date of death to the date each dependent child attains age 20 if the child is under age 15 on the date of death. If the dependent child is 15 years or older on the date of death, payments will be made for five years. Payments for children under the age of 18 would be made to a custodial parent or court-appointed guardian. A dependent child is a biological or adopted child who is under 20 years of age and who is dependent on the member for more than one-half of his or her financial support.
- A member may designate payment of lifetime monthly benefits for either a former spouse(s), or dependent and non-dependent, biological or adopted child(ren), instead of the above described surviving dependent child(ren) benefits being paid.
- For a member without a former spouse or dependent child(ren) at the time of death, either the designated beneficiary or estate, whichever is applicable, is entitled to a lump-sum death benefit equal to accumulated deductions plus interest to the date of death. Interest is compounded annually
at 6 percent. Contributions made by the employer are not included in this benefit. A member may designate any person(s), trust, or organization(s) as a beneficiary.


## Married Members

A surviving spouse has precedence over any designated beneficiary.

## Non-Vested

- A member's spouse is entitled to a lump-sum death benefit equal to the accumulated deductions plus interest to the date of death. Interest is compounded annually at 6 percent. Contributions made by the employer are not included in this benefit.


## Vested

- A member's surviving spouse may elect to receive a lifetime annuity in lieu of a lump-sum benefit. The lifetime annuity is payable on a monthly basis for the lifetime of the spouse. Payments terminate upon the death of the spouse with no benefits remaining for other beneficiaries.
- Instead of a lifetime annuity, a member's spouse may elect to receive actuarially equivalent payments for a term certain annuity of $5,10,15$ or 20 years. The amount of the annuity is based upon a formula, the member's age at the time of death and the age of the spouse when benefits begin to accrue, although monthly benefit payments cannot exceed 75 percent of the member's average High-5 monthly salary.
- A member and their spouse may jointly make a specification to waive the spouse's benefits so that designated beneficiary(ies) will receive a lifetime survivor annuity benefit. The designated beneficiary may be either the member's former spouse(s) or the member's biological or adopted child(ren). Under a joint specification, a designated beneficiary cannot elect a term certain annuity of 5, 1015 or 20 years. If a joint specification is not on file, the annuity is payable only to the surviving spouse.


## Non-Vested or Vested

- A member and their spouse may jointly make a specification to waive the spouse's benefits so that any person, trust or organization will receive a lump-sum death benefit equal to the accumulated deductions plus interest to the date of death.


[^0]:    Room 140 Centennial Building, 658 Cedar Street, St. Paul, Minnesota 55155-1603 - Tel: 651-296-4708 - Fax: 651-296-4712
    E-mail: auditor@state.mn.us - Web Site: www.auditor.leg.state.mn.us • Through Minnesota Relay: 1-800-627-3529 or 7-1-1

[^1]:    *Regular TRA Fund, does not include investments in the Minnesota Post Retirement Investment Fund.

[^2]:    * Under LCPR guidelines, this amount does not include supplemental payments which could occur after the expiration of the remaining 29 year amortization period.

[^3]:    * 2008 data reflects higher additions and removals associated with the conversion of former MTRFA benefit recipient rolls into TRA during fiscal year 2008.

